2008-2009 Casual Games White Paper

A Project of the Casual Games SIG of the IGDA

Find out more at www.igda.org/casual

Contents

Introduction

2007 and 2008 have been years of tremendous change for the casual game industry. From 2001-2006, the business seemed simple. The vast majority of industry was tremendously focused: we made small-download games designed to appeal to middle-aged women delivered over the internet and played on PC. We mostly created simple puzzle, action, and word games. Players could download them from a variety of high-traffic portals and play them for 60 minutes without charge. If they liked them, they paid $20 (or a bit less with a buyer's-club type subscription) and the distributor and the developer split the money in various proportions. If the player didn't like them well enough to pay (and about 99% of downloads didn't result in a payment), the player went on and played something else. With this simple model, the casual game market grew itself from a $25 million anomaly in 2002 to $500+ million business in 2006. And it did so without drawing too much attention from existing large game publishers.

This is not to say that people weren't creating other types of casual games during these years. A few brave souls were building businesses on ads, subscriptions, and microtransactions, but by and large they were seen as being on the margins of the industry. There was little or no doubt that when you set out to discuss casual games, you meant downloadable try-and-buy games targeted at soccer moms.

In 2007 and 2008, things began changing for casual games. Real revenues began to emerge in the ad-supported and advergaming sectors. Microtransaction success stories began to emerge – both with Asian imports (where microtransactions have been the key revenue model for online games since 2000) and homegrown North American products. Dedicated game consoles launched game download services and casual game developers greeted them with open arms. Major packaged goods game publishers opened divisions devoted entirely to the casual market. The Nintendo Wii made the concept of casual play in packaged goods console games an industry watchword. And suddenly, the fact that casual games are the fastest growing segment of the game industry wasn't escaping anyone.

The 2008 IGDA Casual Games White Paper is an attempt at reflecting the sudden growth and diversification that the industry has experienced. The White Paper begins by establishing a framework for understanding what casual games are all about and how they are different from what most of the mainstream press considers "the game industry". This is followed by sections that dive in and take a careful look at a variety of categories and formats of casual games, helping you to understand how they are designed, built, funded, and paid out. We try to give you a bit of visibility on games that have moved each category and to help you understand who is buying each type of game. It is our hope that a good reading of the white paper will give you a sense of the sweep and scope of the industry and help to focus your efforts as you work on creating the great casual games of the future.

The 2008 IGDA Casual Games White Paper is the result of a tremendous outpouring of effort from the casual game community. More than 50 people contributed to the document you are reading. Some wrote the articles, some edited, and some helped with project management. All are experts on some segment of the casual game industry and all gave their time as volunteers to create this document. If you see the value in their efforts, please help to pay it back by supporting the IGDA as a member or volunteer.

This white paper is one of several key initiatives from the IGDA Casual Game SIG. In addition to the white paper, we publish a newsletter on current developments in casual games, maintain an active mailing list, and take on various initiatives to promote best practices in the casual game field. You can learn more about our efforts at http://www.igda.org/casual. We hope you'll take advantage of the many free resources we provide.

As a final note, one testament to the rapid pace of change in casual games is that several categories of casual game that barely existed when work started on this white paper (in July of 2007) have become very important to our industry. Those categories aren't covered in this edition of the white paper. We hope to deliver white paper updates on casual MMO games, social network games, and iPhone games in 2009.

Thanks for taking the time to download the 2008 IGDA Casual Games White Paper. We hope you'll find it useful and informative. As the industry continues to involve, we'll do our best to keep it up to date and relevant. We hope that you come away from it feeling better informed and perhaps even a bit more inspired about making casual games. If we have done that, then the many hundreds of hours of volunteer effort were very well worth it.

November 30, 2008

Dave Rohrl

2008 IGDA Casual Game White Paper Editor

Understanding Casual Games

Section Editor – Jonathan Greechan, Online Media Consultant

The Market for Casual Games

Jonathan Greechan, Online Media Consultant

What is a Casual Game?

Once considered "games for the rest of us," casual games have quickly transformed from an emerging niche market to a mainstream force that is changing not only the video game business, but arguably the entertainment industry as a whole.

According to the Casual Games Association 2007 Market Report, "Casual games are video games developed for the mass consumer, even those who would not normally regard themselves as a 'gamer.'" While this definition may seem overly vague and far-encompassing, it is correctly so. Casual games are played by everyone, from children to grandmothers, and professional bankers to stay-at-home moms, and everywhere, from online portals to consoles, cell phones to airplanes - even next to the beer tap at your local watering hole. They come in all shapes and sizes, and extend far beyond the lighthearted, female over 35-targeted downloadable puzzle games that have come to commonly define them.

There are several characteristics that most casual games share;

- Low barrier to entry – easy to learn game play.
- Simple controls. For example, most hit PC casual games feature a simple point and left-mouse-click control scheme.
- Gameplay that is addictive, but still able to be consumed in short increments. In fact, most casual games are played in 5-20 minute increments either during lunch or after dinner (CGA 2007 Market Report).
- Forgiving, non-punishing game play. For example, most hidden object games allow you to make several false clicks before any penalty occurs.
- Carefully-crafted ramp in game play complexity. For example, in HipSoft's *Build-a-Lot*, the city mayor guides you through the first levels and gradually introduces you to more depth in the game play.
- Casual Games tend be inclusive, rather than exclusive. For example, *Mystery Case Files* employs a gender-neutral, mainstream mystery-solving theme, and many other games feature an entrepreneurial theme which resonates with most people. Very rarely do you see casual games with overt violence or sexuality.

- Casual Games tend to speak to a player's desire for fun and relaxation, rather than the desire for adrenaline or sensual stimulation typically served by hardcore games.

- Casual Games typically require a lower production budget than traditional hardcore games, although this gap is narrowing.

However, it can't be stated enough that most of the characteristics above are typical of most casual games, but not all. In fact, perhaps the best definition for casual games is the common denominator that unites them all; accessibility. In other words, casual games can be defined as games with a low barrier to entry that can be enjoyed in short increments. Whatever the definition, one thing is for sure – casual games have emerged as a mass-market entertainment medium, and as new distribution and monetization models continue to proliferate, new types of games will emerge that serve previously un-exploited audiences and further expand our understanding of what a casual game is.

Market Growth

The overall casual game industry is a $2.25 billion a year market that is currently growing by 20% annually (CGA 2007 Market Report). In fact, according to comScore, over 25% of internet users worldwide now play online games every week – which equates to over 200 million users worldwide (CGA 2007 Market Report). Many of the major portals now boast several thousand games, with over 300 new game launches a year.

This rapid growth in the industry has led to many significant developments over the past several quarters. In 2007, several large video game companies displayed their commitment to casual games by creating dedicated departments to focus on this growing sector. Not long thereafter, Facebook opened its platform to the masses, and the Social Gaming sector was born. Earlier this year, RealNetworks announced its intent to spin off its casual games business into a separate company, and more recently, both Big Fish Games and Oberon Media raised significant capital in order to promote global expansion. Numerous advertising startups have entered the scene to help monetize casual games, and even Google has joined the fray, recently announcing AdSense for Games. All the while, new distribution platforms such as the iPhone and WiiWare continue to spur even more casual game growth and investment every day.

One of the key bi-products of this explosive growth has been the re-alignment of companies in the sector. Coopetition, where companies would cooperate on some initiatives while compete on others, is diminishing. Many portals have ceased to distribute their IP to competitors, while also building walled game communities focused on consumer loyalty. Many companies have scaled back their operations and specialized. Other companies, such as Oberon, have made acquisitions and vertically integrated - combining game development, production, and distribution on multiple platforms as part of their service offering.

The market for casual games has certainly matured, and throughout this whitepaper leaders in the different market sectors will review in detail the history, audience, key players, and business models specific to each sector.

Overview of Casual Game Business Models

Jonathan Greechan, Online Media Consultant

The following overview on business models is divided by the point-of-purchase; whether online, at retail, or over a mobile device. These models are described in more specificity throughout the rest of this whitepaper.

Online Distribution Models

1. **Download Trial-to-Purchase**

   In the download trial-to-purchase model, users are offered a trial version of a game, usually time and/or feature limited, and then encouraged to purchase a full version of the game. Price points vary, but generally games are sold from $5- $30. This model in many ways has established the casual games industry as a whole. Indeed, the beauty of this model is that it allows users to try a game before they buy, which opened up the market for so-called non-gamers by exposing them to new types of games. Another advantage of this model is that it is generally more democratic than traditional retail models, because strong gameplay can drive sales much more than marketing budgets or widely known IP. However, this model also comes with its drawbacks. Conversion rates, or the ratio of users who download a trial to those that purchase a full version, generally only hover around 1-2% on average, with around 5% for hit games.

   The vast majority of games on this model are sold on the PC, however the Mac is growing as a viable platform as well. While the lack of standard Mac DRMs and low hardware penetration continue to hold Mac distribution down, several portals now offer Mac games, such as Gamehouse, Big Fish Games, Reflexive and PlayFirst. In fact, Reflexive's Russell Carroll reports that some original Reflexive Mac titles earn 15% of the game's total revenue. If anything, the best case for distributing on the Mac is the lack of competition compared to the PC.

   Other quickly growing distribution channels are the online services offered by newer consoles, as well as the set-top-box. Xbox Live Arcade (XBLA) already boasts many popular casual games. In fact, at the time of this writing, *Feeding Frenzy 2* is the number 3 game on all of XBLA. However, the recent unveiling of the WiiWare store may prove to be an even greater opportunity for casual expansion of the download trial-to-purchase model because the Wii is generally regarded as a better casual game platform, with more production-quality-lenient requirements for distribution than XBLA.

More information on the download trial-to-purchase model can be found in the Downloadable Game section of this whitepaper.

2. Ad-Supported Content

In this model, games are offered for free to users in exchange for advertising placed around or inside the game. This market is currently dominated by online web games able to be played in a browser, which can come in the in both the singleplayer and multiplayer variety. CPMs for ads around games tend to be higher than other forms of online media – specifically for video-interstitials strategically placed before games or in-between levels – because advertisers are able to reach a more targeted and attentive audience. In addition, the advertising model has expanded the market by monetizing casual game audiences that are not as likely to pay for games, such users on social networks and teenagers.

Over the past few years, in-game advertising has begun to show up in downloadable content as well, specifically on portals such as RealArcade and WildTangent. In these cases, advertising is displayed inside the downloadable game, allowing portals to offer these games for longer or even indefinite trials. This has proven to be an efficient way to not only monetize trial downloads, but also to extend the revenue-generating window for games (by introducing in-game advertising after the game's sales cycle has run its course).

The advertising model has also helped spurn a new industry-wide focus on creating and fostering strong communities of players. Whereas downloadable games tend to take players away from a portal, ad-supported online single- and multiplayer games can keep players on a portal and looking at more advertising. Community features such as chat, profiles, and virtual awards have been introduced on many of the larger portals to further drive stickiness and advertising revenue.

More information on the ad-supported content model can be found in the Ad-Supported Game section of this whitepaper.

3. Advergames

Advergames can best be defined as a game where the game itself is used to deliver an advertiser's message (as opposed to ad-supported content, where ads are simply placed around a game). These games are typically fully-funded by the advertiser, built on a work-for-hire basis by a developer, and delivered to the consumer for free. However, advertisers often work closely with developers to re-brand and conceptually incorporate their brands into established casual games as well.

While most advergames tend to be of the free-online variety, Burger King recently made headlines by releasing three original Xbox advergames, selling over 3 million units in their stores. While this case is more the exception than the rule, advergames are certainly an attractive way for marketers to break through the clutter and reach a targeted, captive audience.

More information on the advergames model can be found in the Advergaming section of this whitepaper.

4. Skill-Based Games

Also known as "cash-prize games" or "tournament games", skill-based games can be defined as games predominantly determined by skill, where players provide an entry fee to compete against other players for cash or prizes. Skill-based game operators make money by subtracting a small percentage of the entry fees before rewarding the prize to the winner. Many top casual game brands are on skill-gaming sites, such as *Bejeweled*, *Diner Dash*, and *Luxor*, however most existing games need to be re-designed in order to minimize chance.

Since very large audiences and high security standards are needed to sustain this business model, this sector has undergone significant consolidation over the past few years. Regulation against skill-based games also varies throughout the globe, and even throughout different states in the U.S.

More information on the skill-based games model can be found in the Skill Games section of this whitepaper.

5. Subscription

Subscriptions are found throughout all aspects of casual games, from MMOG and online communities, to download games. The stability that recurring revenue brings has obviously enticed many companies in the space to pursue this model, but to date there have been far more failures than successes. Developers typically share in a site's subscription revenue based on the usage of their content.

There are many variations on subscription plans in casual games, but the two predominant forms are the 'all-you-can-eat' model, and the 'book-of-the-month' model. In the all-you-can-eat model, subscribers pay a monthly fee and have access to all of a site's or game's content during the length of the subscription. Often, subscribers free themselves of any on-site advertising as well. Examples include Pogo's successful ClubPogo subscription, and ThreeRings' *Puzzle Pirates* MMO subscription plan.

In the book-of-the-month model, subscribers pay a monthly fee and typically receive a free game every month and access to other incentives, such as reduced pricing on subsequent game purchases. Examples of this model include RealArcade's *GamePass* subscription, as well as Big Fish Games' *Game Club*.

More information on the subscription model can be found in the Downloadable Games section of this whitepaper and in the Casual MMO section of the 2009 White Paper Update.

6. **Microtransactions**

In the microtransaction model, players are typically allowed access to a free game experience, but then encouraged to purchase cheap virtual items that can enhance their experience. This model fares well in the casual market, because players can decide how they want to consume content. The microtransaction model is also favored for financial reasons, because consumers are often more willing to make multiple small purchases than a single large purchase, while non-paying consumers can still be monetized through advertising.

This model has been prevalent in Asia for years, specifically in popular MMOs such as *Kart Rider*. In the West, online communities such as Café.com, and downloadable casual games such as *Diner Dash: Hometown Hero*, have also employed this model to great success. The number of casual games that are monetized through microtransactions is destined to grow significantly in the coming months, because investment in the sector continues to grow and Asian microtransaction stalwarts such as Tencent have begun distributing their wares in North America.

More information on the microtransaction model can be found in the Downloadable Games and Short-Session Microtransaction Games section of this whitepaper, and in the Casual MMO and Social Games sections of the 2009 White Paper Update.

Brick and Mortar Retail

In this model, the packaged game is sold at a brick-and-mortar retailer – typically for $10-30. These games can be either for the PC, Mac, Console, or a portable gaming device.

The influx of traditional game publishers into the casual space has introduced a much more fragmented and competitive retail environment. Relationships with key retailers, track record, and strong IP are often the key to success. Because of higher packaging, production, and shelf-space costs, and in turn, greater risk, margins for retail games can be significantly lower than the download trial-to-purchase model. In addition, higher risk means only the most popular casual game IPs ever make it to retail. As is the case in any other retail medium, shelf-placement, marketing, and presentation of product can have a significant impact on sales.

More information on the brick and mortar retail model can be found in the Retail section of this whitepaper.

Mobile

Mobile games are typically offered for purchase either at a one-time fee, or a monthly subscription. These costs, typically around $3-$10 a game, are typically added to the consumer's monthly phone bill.

Since casual games are often simple and able to be consumed in short sessions, the mobile device is in many ways the perfect casual gaming platform. In the past, free trials for mobile games were scarce, and as a result licensed IP dominated the space. In addition, carrier content distribution restrictions have traditionally limited market expansion. However, the introduction of the download trial-to-purchase model to mobile, as well as more powerful mobile gaming platforms (ie. the iPhone), present a significant opportunity for mobile casual content in the future.

More information on the mobile model can be found in the Mobile Games section of this whitepaper.

The Casual Game Audience

Greg Mills, Director of Games, AOL Games

Overview

As casual games continue to become accessible on all platforms and to all ages and genders, the definition and the size of casual games audience continues to expand as well. So who is the casual game player? The answer is everyone. Even though market research shows the majority of the audience today is women 30-45 years old, all ages and genders play online games and buy downloadable games; from young males playing casual sports and arcade games, to seniors playing online bridge. Casual game players typically play these types of games in seek of diversion, socialization or competition.

Even in the video game industry - which has historically targeted hard core gamers which skew towards younger males - games with simple gameplay that attract the casual gamer are driving serious revenue (ie. The Nintendo Wii). Even these so-called "hard core" game players also take time out to play casual games, like poker or simple action games because, unlike the immersive games that they predominantly play, casual games offer a nice break for "fun" or simple diversion. The entire games industry seems to finally understand the importance and profitability of creating simple games that are accessible to everyone, regardless of platform.

Demographics

The demographics vary widely in the different casual games markets, so most sections in this whitepaper feature a discussion on demographics. However, the largest demographic in the

casual games audience is comprised of women 30-45 years old (See chart below). In fact, the Casual Games Association reported that women account for 74% of paying casual game players (2007 CGA Casual Games Report). This demographic is mostly playing free online games in the puzzle, word, and card genres.

With that said, demographics do vary by genre, and even within the same genre. For example, free online checkers attracts a younger demographic, while free online bridge attracts mostly men and women over fifty years old. In addition, free online sports and action games attract mostly a male audience, while free online Solitaire and word games predominantly attract women between 30-45 years old. Some online sites and MMOGs target a specific casual online game segment, while others target the mainstream consumer. For example, Yahoo Games targets a broad casual games audience, Disney targets young children with its *Club Penguin* MMOG, and sites like Addicting Games target young boys and girls.

US Female Internet Users Who Visited Online Gaming Sites, by Age, August 2007 & August 2008 (thousands of unique visitors and % change)

	August 2007	August 2008	% change
12-17	3,030	4,710	55%
18-24	3,781	5,090	35%
25-34	5,724	6,543	14%
35-44	7,990	8,839	11%
45-54	6,366	7,359	16%
55-64	3,100	4,418	43%
Total	**33,888**	**42,884**	**27%**

Note: home, work and university locations
Source: comScore Media Metrix as cited in press release, September 15, 2008

097985 www.eMarketer.com

Characteristics of the Casual Game Audience

In general, casual game players share the following characteristics and behaviours;

- They enjoy simple to learn games with basic controls;
- They enjoy quickly accessible games with minimal, to no, setup;
- They enjoy games that can be consumed in small time increments (ex. Solitaire)
- They play games in order to relax, pass time, socialize, or achieve certain goals and challenges;
- They do not perceive themselves as being “gamers;”
- They generally do not play violent games.

- They generally do not spend any money on specialized game hardware or peripherals.

It is important to elaborate on some of the game play behaviour that was outlined above. There is the perception that casual game players do not play games frequently or only play in short game sessions. Both these behaviours are observed in the casual games audience, but there is a large group of these users who do not fit this stereotype. Many of the casual online games sites are some of the stickiest web sites on the Internet. For example, on the AOL Games Channel, which targets a broad casual audience, the majority of its online classic card, board and free casino games average between 20 - 40 minutes per game session. For example, even Solitaire averages 40 minutes a game session, even though a round can be completed in less than two minutes. When you look at the average time spent per user per month, games is the third most popular activity on the entire AOL site after e-mail and instant messaging - averaging 91 minutes.[1] Thus, casual games can be consumed in short periods of time and infrequently, but many users play these types of games a lot more than it is generally perceived in the marketplace.

Also, competition is another important characteristic with this demographic, but it has a slightly different flavour. For comparison purposes, hard core gamers in both the PC and console space typically like to compete head to head with their friends in the home, or online against others. On the other hand, in the casual games space, leader boards and tournaments play a key role in supporting community and increasing game play. While this is similar to the head to head competition that is popular in the hard core games, the more popular element of competition in the casual games space is based on competition against oneself in order to achieve certain in-game objectives. If the casial player achieves an objective, they generally win a virtual prize or badge that can be displayed in their game profile. An example of such an objective is the following; “Play Solitaire this week and if you win thirty times, you win a virtual Solitaire badge.” These competitions have been very popular on casual online games sites like Pogo and Microsoft, and attract women 30-45 years old.

Global Design Principles

Andy Megowan, Creative Director, iWin

Introduction

The act of creating a game is daunting. From a sea of ideas, market pressures, inspiration, perspiration and desperation, the designer must see what is not yet there and pull it into existence.

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[1] Metrics for AOL Games, comScore, October ’08.

Every design principle, no matter how sweeping or microscopic, provides constraints and definition, and these in turn offer the greatest creative freedom. There are well-documented principles of design that apply to practically any field, from musical composition to architecture, or anywhere in which there is a marriage of form and function. Donald A. Norman's "The Design of Everyday Things" is a cross-industry standard for identifying and applying principles, along with the more architectural bent of Chris Alexander's "A Pattern Language." For computer applications, Alan Cooper's "About Face: The Essentials of User Interface Design" and "The Inmates are Running the Asylum" are about modern human-machine interfaces, and there are now dozens of books about game design that cover art, code, even audio and narrative.

The characteristics of the casual games industry—the developers, business models, customers and culture—are like the lights shining in the distance, revealing some detail and rough shape of a well-designed casual game. Some general things to keep in mind are:

- **Games are *played*.** There may be watching, reading, listening and other activities involved, but the main activity is play. For casual games in particular, the play is also the *reward*.

- **Casual Games exist in a meritocracy.** The business model rarely relies upon marketing, word of mouth, or licenses. Casual games have relatively few crutches, and survive on their own merits more often than the merits of a license, reputation or other recognizable tie-in.

- **A Casual Gamer is anyone who is *not* a gamer.** Aunt Dorothy does not identify herself by the games that she plays. Casual games are a leisure activity, to be undertaken in limited spare time.

- **Respect the customer. They don't need you.** Customers are bombarded with new leisure options every day, and will use any arbitrary reason to filter the excess stimuli down to something manageable. To be noticed, then, the designer must eliminate the widest number of reasons that a potential customer might have for not playing a game.

The General Design Principles

No designer can create something that everyone will love; there is no accounting for individual taste. But every design choice that makes a game more accessible to a wider audience is much more likely to improve a casual game's commercial success. The conclusion is this: *Eliminate any possible barrier to someone enjoying the game.*

The design principles that follow are organized by different aspects of production, and are generally tackled at different points in a product's development. They are:

- Packaging and marketing

- Theme and Premise
- Low system requirements
- Attractive Visual Presentation
- Appealing Audio Presentation
- Controls
- What's required of the player
- Learning The Game
- Mechanics
- Addiction and Viral Marketing

Packaging and Marketing

- **A little picture covers the Big Picture.** The game mechanics and premise should be clear from 50 feet away; i.e. a screenshot. A good screenshot—or even better, a thumbnail image—should clearly indicate what the game is about, and how it's different from similar games.

- **Use an appropriate name.** The name should offer key words to clue customers in about the theme and/or the principal game mechanic. The exception is sequels to popular franchises. Short names with rhymes and alliteration go over well.

- **Favor style over realism**. Realism is expensive and takes time. Realism also runs the risk of plunging the customer into the 'Uncanny Valley', or of making simple actions disturbing. Imagine a cartoon character hitting another character on the head with a mallet. Then imagine the same image with real people. One gets a laugh, the other gets 90 days for Aggravated Assault, with $25,000 bail. Customers typically favor escapism over immersion, so style (which is also easier on a low-end machine) makes more sense than realism.

Theme and Premise

- **Offer the player escapism.** Where a hardcore gamer sees games as an integral part of their life, a casual gamer frequently views games as an *escape* from daily life, and will search out games that specifically differ from their "real world" life and actions. Provide that escape through the theme and artistic direction of your game.

- **Offer an appealing theme**. Always theme even the most abstract of games. Themeless = free flash. Ideally, your theme and game mechanics will be related. They don't need to be accurate, but connecting theme and mechanic is good synergy and aids in the suspension of disbelief and the awareness of the passage of time.

- **Make the customer pay attention.** In the past year, more than a thousand casual games have been released to consumers. Many portals offer a new game every day. That is an awful lot to throw at a customer who is just looking for a momentary diversion, and when people are presented with an information overload, they often cope by finding reasons *not* to pay attention to something. Frequently, the customer makes a decision to investigate or ignore based upon the name of the game, and—if they're still interested—a description of 20 words or less. Of course, 999 other products are using exactly the same enticement. It's not easy, and there's no accounting for individual preference, but start with the name.

- **Favor light fantasy over high fantasy.** "High Fantasy" is a popular term for large-scale realms influenced by J. R. R. Tolkien, with ballads, multiple races, and world-shattering events. This type of fantasy has been completely owned by the fantasy role-playing game demographic. Like it or not, the casual gamer often sees "high fantasy" as being for "those other gamers", and will likely pass on any opportunity to explore that world. Instead, favor the lighter fantasy element seen in fairy tales, mainstream film, TV, and folklore.

- **Be gender inclusive.** There is plenty of subject matter that is appealing to both men and women. Find common ground that isn't tied to sexuality or anatomical differences, and both sexes will approach your game with an open mind.

- **No troubling themes**. Do not directly confront or challenge the player's beliefs or world view.

- **Stick to universals.** If you make a game featuring sushi, then no matter how great the game, people who don't like sushi won't even look at it.

Low System Requirements

- **Go low.** Minimal hardware requirements. Whatever it takes to run Microsoft Office.

- **3D is okay**, so long as it's used to present a fundamentally 2D game. With the significant inroads of the Nintendo DS and Nintendo Wii, 3D graphics are more acceptable than ever in casual games. However, more sophisticated 3D graphical features - such as the powerful shader systems that add all sorts of juicy visual effects to your 3D world - are still off-limits because of their demanding system requirements.

- **Requiring the standard devices for your target platform is fine.** Requiring a mouse for a Windows or Mac game is acceptable. Requiring a right mouse button is iffy. Requiring a three-axis, 10-button force feedback joystick with a rumble pack will lose you sales. Just as a casual game should require no more knowledge than the basics of using the hardware (such as how to use Microsoft Windows), the game should also be easy to play with only the hardware that every customer is guaranteed to have.

- **Don't require a sound card** unless audio is integral to the game's mechanics.

Appealing Visual Presentation

- **Downplay or minimize the role of violence.** Violence is a matter of presentation. Many game objectives are about overcoming or eliminating obstacles, or manipulating items in an environment. How the changes and obstacle removal is portrayed makes all the difference here. The game of chess typically entails removal of three quarters of the playing pieces from the board. A game could simply stop drawing the pieces, or could show the death of the characters in blood-spattering detail. Similarly, the death of monsters in *Sonic the Hedgehog* has been portrayed as Sonic releasing cute woodland creatures from their evil robotic shell prisons.

- **Tools = good, weapons = bad**. This is a corollary for the previous guideline. Weapons are a subset of tools, but the designer can make the choice of whether to portray a tool as a weapon.

- **Give the player all the relevant information about what they see.** Assumptions on the part of the designer about specific cultural knowledge or literacy can confuse the audience. If an audience member has missed the significance of some element, it's possible that they will have to go outside of the game (breaking suspension of disbelief) to attain the needed knowledge. It's also possible that the player will be completely stumped and either become frustrated or simply switch to playing another game.

- **Favor style over realism.** This has been mentioned before. It's worth saying again. Style works better on lower-end machines than realism does. Use Catchy, stylistic graphics with bright, cheerful and saturated colors. The game creates a mood through art and sound. Help create a feeling that the player enjoys and wants to experience again.

- **Be nice to color-blind people**. Current reports are that as many as 14% of males are color-blind. It's worth making sure that a game relies upon colors that vary brightness as well as hue for distinguishing characteristics. Adobe Photoshop offers filters that will let any artist see their game through the eyes of a color-blind person.

- **Use 'attract mode' wisely.** An attract mode (self-playing game, or playback of prior games while nobody interacts with the game) is useful for conveying the nature of the game mechanics.

- **Go light on the text.** Some games are all about the writing, and that's fine. Well written prose is a delight to readers. Good writing usually conveys more with fewer words. But game elements that don't rely upon text will easily cross language boundaries, reducing the resources required to get a game localized and distributed to more countries. Use writing where it is needed, and use something else where writing is not needed.

Appealing Audio Presentation

- **Don't rely upon audio.** The game may very well be played without it.

- **Acknowledge player actions immediately** with audio, if nothing else.

- **Happy music is good.** Convey the appropriate mood.

Controls

- **Controls should be platform appropriate, and as intuitive as possible.** For instance, if the game is for Windows, then clicking, right-clicking, dragging, arrow keys and typing are all reasonable.

- **Let the customer use what they know.** As much as possible, stick with the skills found in using whatever platform the game is on: Windows, consoles, phone, mobile device, DS, PSP.

- **Right Mouse Button optional.** Macs and flash games don't necessarily allow for the use of a right mouse button.

- **Favor simplistic controls.** If there is complexity, let it emerge from interesting combinations of simple components.

- **Eliminate choices that are irrelevant to the customer.** Things that matter are audio volume, windowed versus full screen, and little else. There may be configuration items unique to a particular game, but if there is an option that is only "recommended," don't even expose that choice to the player. For example, adding a 'configure input device' option may seem like a solution, but your customers may see it as one more barrier to actually playing the game.

What is Required of the Player

- **Look like a minimal time investment**. If the player thinks that they can leave at any time, then that actually lets them feel safe playing more and more. (NOTE: Emotional investment is allowed.)

- **Be up front about reflex requirements.** While the majority of casual games do not feature "twitch" mechanics, several popular games challenge players to master timing, precision, aiming and fast reaction time. If a product requires these reflexes, be sure to make that clear to the player before the game begins.

- **Be up front about the mental requirements.** When a game requires memorization, cultural literacy, fluency, vocabulary, typing skills, spelling, or mathematics, establish this right away, and make it integral to the game. If your game appears to require a particular set of skills and knowledge, then surprising players with additional requirements after the game has begun can be seen as a "bait and switch." This can result in momentary feelings of inadequacy, followed immediately by anger and the vindictive un-installation of the game.

Learning the Game

- **Learning = work. Playing = fun.** While the learning may in truth be fun, offer something else as a reward to the player.

- **Minimal exposition.** Design a game to be played without too much background knowledge or context. If information that's critical to playing the game is embedded in back story or cut scenes, then there's no way to guarantee that the player saw it before beginning to play. Make sure your game is fun whether or not the customer takes the time to appreciate the brilliant screenwriting.

- **Minimal interruptions.** Keep the directions and instructions to one sentence if possible. Design the learning and instructional parts of the game to be part of the flow. Having a game teach the player something without stopping for instruction is the holy grail of game flow.

- **Use a shallow learning curve.** There is no known upper limit on the complexity of games embraced by casual gamers, provided that they are eased in to the knowledge in a way that gracefully handles interruptions and short sessions. Tidbits of information should be bite-sized, and easily picked up again if dropped.

- **Discovery is an endorphin releaser**. Use it.

- **Being punished or beaten is not fun.** Do not require this as part of the learning process. Casual gamers are usually as capable as hardcore gamers at handling complexity and intensity, but respond more to a gradual curve and encouragement instead of

browbeating and humiliation. Where a hardcore gamer might get bored with a game that ramps up, the casual gamer is usually in less of a hurry to master the skills required to play a game.

- **Have a clear learning feedback loop.** If the player loses or performs below their expectations, make it absolutely clear why that happened, and how they can do better.

Game Mechanics

- **Let your mechanics and theme help each other.** Mechanics should be connected to each other and to the theme of the game.

- **The Player knows what is happening.** Events relevant or critical to the player's understanding of the game *should unfold on screen* rather than out of sight. For example, imagine a villager is starving by the waterfall, but the player is occupied with watching the construction of a hut. If that hungry villager dies, whose fault is it? The player's? Wrong – it's yours! You must always let the player know that there is something off-screen requiring attention.

- **The player always makes informed decisions.** Everything that the player needs to make a decision should be on screen when they must decide. Making a player hunt through multiple screens and interfaces for the information necessary to make a decision is a poor way to extend game play. If buying cotton at fifteen dollars a bag means that they are taking a loss, then the information about that loss is important enough to be onscreen when the player is making that decision.

- **A game is not a movie or a novel.** If you make a cinematic, prepare to have it skipped or ignored. If the cinematic teaches concepts vital to the game, make this content readily available elsewhere or prepare to have the game played without the player knowing these concepts.

- **A game is not a spreadsheet.** There may be lots of numbers for the player to track, and the underlying mechanics may rely upon number crunching. But the game—and how that information is provided to the player—should not a spreadsheet! The exception is games for which the object is to test the player's mathematical abilities. In all other cases, divide the labor up so that the computer does computations, and the player provides imagination and decisions based on those computations.

- **The player is in control.** Helplessness as events unfold in a game is frustrating. There are good reasons to take control away from the player from time to time, such as to have events unfold that would not normally happen during regular play. Use this to advance a story and offer rewards rather than do anything that could be perceived as punitive or regressive (pushing the player back).

- **Offer closure at several points.** A session with your game is a casual affair that can last from a few minutes to several hours. Assume that the session will only be a few minutes. Allow players to walk away at any point without losing a great deal of their progress. Do this by offering frequent breaks. A player confronted with a short session is likely to think "just one more round."

- **Every moment—especially losing—should be as fun as possible.** If the player makes a mistake, or loses, or is somehow not up to a challenge, the game must remain fun. There's no reason to take hard-earned ground back from players, or force them to repeat an accomplishment. When the player fails, it should be obvious why, and how to do better next time.

- **Everything that the player does should be progress.** A game that forces the player to perform a repetitive action just to stay in place (i.e. grinding or treading water) has just transformed from *play* into a *chore***.**

- **Keep the game alive and responsive.** Keep something happening on screen at all times, even when the player is doing nothing. Action on screen not only tells the player that the game is still running (and not crashing), but also motivates the player to take action, too. And when the player does take action, acknowledge that action immediately with some form of response.

- **Favor a variety of content over a variety of mechanics in a single game.** Content is more cost-effective than new mechanics. Each new mechanic increases the testing and balancing resources required exponentially as all new relationships among game mechanics must be explored and tested. By comparison, new content increases resource demands in a linear fashion. Additional content that allows the player to apply knowledge of familiar mechanics leads to greater feelings of mastery. The classic example of favoring new content over new mechanics is Sudoku. There is no end to the content and the mechanics are simple, yet more Sudoku content is created every day.

- **Favor trade-offs over penalties.** Penalizing players for things that they did is a leftover mechanic from sports and coin-op. Older games might do something like deduct points from the player's score for mistakes. A *trade-off* keeps the players in control, and lets them embrace the consequences of their actions before they happen. A *penalty* happens at some point in the future after a player has taken an action, and is disassociated from any feeling of *choice*. The removal of choice leads to anger, and anger leads to the dark side. And no games sell on the dark side, young Skywalker.

- **Don't cheat. Or, more accurately, don't draw attention to cheating.** Nearly every game cheats. By their nature, the game holds all of the cards, and it's just an illusion

when the program pretends not to know everything. The illusion of fairness, once broken, elicits anger and mistrust, followed by deletion of the game.

- **Favor profiles over saved games.** Multiple people may play the game on a single installation, and if you already favor a game with no dead ends and only progress, then one profile should do the trick. There may be a day in the future as we go more towards a service industry, where the profiles reside on servers so that a player can play their game from any machine anywhere. One player, one profile.

Addiction and Viral Marketing

- **Players want a diversion.** Make a casual game relaxing before making it exhilarating. Create a feeling that the player wishes to feel again.

- **Make it replayable.** This medium is interactive and can be non-linear. Problems with multiple solutions, events with multiple outcomes, and the promise that there's something new over the horizon will encourage players to return to the game again and again.

- **Allow bite-sized time commitments.** Letting the player know that they can easily exit the game after a minute or two will offer a feeling of choice and safety. The player, knowing that they can quit at any time, usually plays longer.

- **Help the player win.** Demonstrate to the player that the game offers rewards and a sense of accomplishment. Usually, this entails making the game *difficult to lose at first*.

- **Offer immediate gratification.** There can be deferred gratification in the form of long-term benefits, but the short-term benefits must also be present.

- **Reward as many actions as possible**, whether a deliberate or an accidental or achievement on rails.

- **Make it easy for one person to explain the game to someone else.** This one is tricky, and how it's accomplished varies from game to game. While there may be many complex systems interacting, there should be some way to step outside of all of the systems to offer an elegant explanation of everything. This explanation, in some form, is how the idea of your game will be transmitted from one mind to another. This will hopefully, in turn, compel another person to try it out.

- **Make it easy for the players to narrate their experiences with the game**. If your player talks to friends and coworkers about an interesting experience that they had while playing your game, there's a good chance that others will give the game a try, too. Make this as easy as possible to do.

Art Style

By Israel Evans, iWin

"Style is knowing who you are, what you want to say and not giving a damn."

- Gore Vidal

Hands down, the first thing you notice when you sit down in front of a game is how it looks. Even if all you see is a small thumbnail, or perhaps, a logo, you can't help but notice, and more importantly, be informed by, the game's art style. A game's visual voice - the interplay between color and form, line and texture - speaks volumes to the player. Each and every element of the visual aspect serves to communicate something about the game – in short, a game's art style is the character and the soul of the game made visible. The art style is a vitally important part of any game, though it is just one of many vitally important parts, each integral to the whole. Harmony between them all is essential to the artistic success of the product.

The development of an art style is guided by many things. Apart from personal taste there are several other critical factors that should guide your final choice of an art style. This includes the game's:

1. Setting
2. Theme
3. Mood
4. Target Audience
5. Expectations
6. Target Platform and Hardware
7. Assumed Player Expectations
8. Available Resources
9. Potential for Localization

1. Setting:

Where is this game taking me?

The world in which your game takes place determines many of the basic elements of the game. If the setting is the American South during the Civil War, there are certain artistic expectations

that must, to some degree, be met – expectations such as era appropriate clothing, architectural styles, or any other elements that make the setting authentic. Aside from the basic research that needs to be done on any target setting – be it an era, locale, or even motif - the game artist has several powerful tools at their disposal to evoke the genuine feelings associated with their target setting;

A. The World of Stuff

At a very basic level, a setting is determined by the stuff that fills it. From the sky down to the ground, to all the stuff in between, everything in the world, in some way, works to fill out and imply a larger world than can be seen by the player. The modern and trendy styles worn by the characters in *Sally's Spa* indicate that the game is set in the current day in the same way that an attractively sculpted diorama of an underwater scene from the game *Fishdom* tells you that the game takes place in an aquarium.

B. Artistic Elements

In addition to the stuff of the world, artists can take advantage of the materials, designs and visual motifs commonly associated with that world. *Virtual Villagers* made heavy use of primitive construction techniques and materials throughout the user interface: bamboo poles lashed together with twine and decorated with simple geographic patterns, words chiseled into stone, all set against a lush tropical jungle background. *Four Elements* chose to use similar elements: weathered stone and dense vegetation, but combined it with the graceful curves and shapes associated with the fantasy genre to achieve a very different effect.

These smaller, more pervasive elements can really change the way objects are perceived. Take, for example, the simple and lowly crate. Craft it out of slabs of driftwood and you could have an island-style crate. Carve it out of stone and cover it with hieroglyphics and you've got an Egyptian crate-like object. Make a similarly shaped box out of white metal and paint a heart on it and you've got a friend for life that comes right out of a dark future.

C. Rendering Styles

Objects, the stuff they're made of and the designs and patterns that decorate them are not the only ways to allude to a particular setting. Appropriating the techniques and styles most commonly associated with a setting's traditional forms of representation can also be an excellent way to evoke a particular setting. This can range from setting the dialogue of a game inside a weather beaten diary, to rendering the game – or its cut scenes – as if through a grainy black and white camera.

All of the aforementioned techniques for evoking a particular setting rely on the shorthand that has been developed for various settings, types of stories and genres. These are largely

dependant on cultural exposure to the various elements and any development team should be aware of this when deciding to adopt an approach.

2. Theme:

What's the big idea?

The word 'theme', especially as it is applied to games and software, is used in two rather different ways. The first and most common is the "surface meaning" - the visual clothing, or 'skin,' a game has been given. It is the aspect of the art style someone would use to describe the game to others. For instance, a game could be described as having an army theme, a daycare theme, or a militaristic underwater daycare theme from the future with elements of Inuit culture. This aspect of theme is generally expressed in the type of content involved; tanks and camouflage, diapers and kids, or chrome-plated dolphin nannies wearing thick coats.

The second meaning is the more literary of the two. It has to do with the "essential message" of the game. These themes, whatever they may be, can be reflected in the art itself. For example, a theme such as "the conflict between male and female natures" can manifest in the juxtaposition of stereotypically masculine and feminine elements throughout the visuals. One might see curves against lines, soft against hard, rough vs. smooth, or any number of other such things. Using the dominant symbols and visual motifs that best emphasize the themes inherent to the game can help in the absorption of those themes by the player, and create a generally more immersive and meaningful play experience.

3. Mood:

How does it make you feel?

The game's mood is also something to closely consider. The underlying emotional state promoted by the art style can either help magnify or counteract the mood encouraged by the game play, story or sound. Most often associated with color palettes and lighting treatments, the way a game affects a player's emotional state (quite often on a non-conscious level) is a powerful element to any art style..

The language a game artist can use for describing moods and emotions are strongly associated with light and color. For example, if an artist is in a bad mood, they might say that "it's a dark day" and they're "feeling blue". If they're angry, they might be "seeing red." If they're jealous of someone's brand new Cintiq, they might "turn green with envy." The way we use color and light to describe our emotional states implies the strength of their power over how we see the world. Choosing the right palette is a great way to subtly (or not so subtly) affect an entire scene, and for this reason this technique is used widely in other visual media (photography, cinematography, etc).

If a game is balanced so as to provide a hectic experience, soothing art can do wonders to keep the player from getting too stressed. For example, the peacefully grassy meadows of *Farm*

Frenzy and the laid back idyllic neighborhoods of *Build-a-Lot* serve to ground the player and provide a safe recognizable place, even when they are required to multitask amidst the mounting anticipation of when the next big chunk of money will arrive.

Contrarily, a riotous collection of bright saturated colors, busy textures and flashy effects provide a bit of life and a general feeling of action in a game where the player isn't actually doing all that much. Games in the hidden object genre lack movement but are visually engaging due to their incredibly busy screens that burst with a multitude of details. There are other games where once the player has completed a level, as in *Peggle*, or initiated a huge chain reaction, as in *Four Elements*, they are rewarded with screens leaping into colorful and cacophonous life.

4. Target Audience:

Who are you talking to?

You must always ask yourself who the intended audience is, and then cater to their tastes. What motivates your audience, what does and doesn't appeal to them, what they are used to, and what scares them are just a few of the critical questions you need to consider during the planning phase of your game. Not hitting these marks have doomed many a worthy game - your product only gets a second or two in front of the player's eyes before they make a decision, so your art style needs to speak genuinely to the exact player you are targeting.

5. Assumed Player Expectations:

Is this natural?

When a game tackles a particular genre, there are often expectations as to the rules of that genre. Most popular genres have developed their own visual languages that shouldn't be ignored. This can most easily be seen in the cultural iconography that permeates our visual lives. A stylized heart in real life brings to mind the concept of Love to most people. In games it is usually used to indicate a character's health. In click management games, hearts have come to indicate a character's level of happiness and the likelihood they'll leave a big tip on their way out the door.

Even very basic things such as camera angle, character size, HUD design and level of realism are suggested by the standards of the genre. Sims and real time strategy games will most often use a tilted, top down camera angle because it's a good way to show off the props and terrain that's common to them. A click management game will usually feature minimal HUD, because the objects in the game are the interface. They'll also feature larger characters rendered in a cartoon style because exaggerated features are useful for showing emotional states, and since all the action takes place between a fairly small number of elements on a single screen, the characters can afford to be large.

The 'founding games' in a genre have great influence on the shape and art style of games that follow them. This often leads players to expect a certain style, and to think in terms of the metaphors and tools established by the genre-defining games. Departing from those standards must be approached carefully and in a way that expands the player's comfort zone, rather than completely alters it.

6. Target Platform and Hardware:

What kind of ride is that?

Even the platform (or platforms) on which games are played shape the development of their art styles. The low minimum spec requirements of the casual games demographic require that artists be very conservative in what they attempt. These restrictions call for the use of techniques and styles capable by machines from 5 years, and even 10 years, old. Fancy GPU tricks are nearly taboo and even 3d is considered tricky. The situation is made even more challenging by the introduction of small screen systems; from the huge variety of cell phones to handheld gaming systems and sub-compact laptops.

7. Available Resources:

How is it getting done?

An additional set of restrictions come in when the practical matter of production is considered. High production values and large amounts of content require good funding and lots of time and/or people. Games must find the right balance of quality and quantity, and sometimes sacrifices must be made. This is especially true in casual games, which is a field of ever-quickening commoditization. This comes down to the logistics of the art team itself; the composition of which can play a big role in the development of the art style.

There are a number of questions that must be answered when building an art team for a game;

1. Who are they and what can they do? Consider the skills and the tastes of the art team before the art style is finalized.

2. Is your art team large enough to do the job in the time allotted? Create a thorough asset list and production schedule at the very beginning and continually update it based on changing conditions. It may be necessary, at times, to either make cuts to the art or bring in additional artists to get the job done. The numbers of artists assigned to any game can vary widely depending on the number of assets involved, the work required to create those assets to the expected level of quality.

3. What's the budget? Plan the budget on a realistic assessment of the skills of the team as well as the quality and quantity of work required of them. Assessing the actual costs of a game and the fraction of the budget that goes towards art is highly dependant on a large array of variables. A big, art heavy game, like a hidden-object or click-adventure

title, will require a larger investment in art production than a game that relies more on game play. On average, you should expect to see at least a quarter of your game budget go towards art.

8. Potential for Localization:

In my country…

One of the greatest things about making a casual game is knowing that it has the potential to be played all over the globe. While this is largely a wonderful thing, it does require greater oversight on the appropriateness and international relevance of content. Attention must be paid to the quirks of cultural norms wherever a game is likely to be distributed. What might go over perfectly fine in the U.S, may not be thought appropriate elsewhere. Something that might be considered a clever pop-cultural reference in the North American market may flop and cause utter confusion when taken abroad. Even the basic metaphor-laden visual language an art director in the states may use to intricately tie the visuals to the story may be next to meaningless when seen by someone who comes from a different upbringing.

But Remember – It's Called "Casual" Gaming!

Casual Games, by nature, should be meant to appeal to a wide array of people. Even though the majority of the market is generally accepted to be women 35+, it is generally inadvisable to exclude any potential customers. This means that while an art style may be chosen to appeal to a particular subset of the market - for instance, mystery loving moms, or closet entrepreneurs with dreams larger than their wallets - casual games should work to be **in**clusive. For this reason, you generally don't find art styles that stray far from the mainstream in casual games. Swords and sorcery, dark science fiction, gritty horror, and other themes generally found in hardcore gaming tend to appeal to a particular segment in an exclusive fashion. Similarly, getting too artsy or 'high concept' can also turn off the mainstream player.

However, none of this means that those styles outside the mainstream shouldn't ever be attempted – in fact, it would be an utter shame if they were not. For example, just a few short years ago, game art styles were generally soft and cutesy, due to the assumption that the largely female audience wouldn't go for anything darker or more realistic. Then came a game called *Mystery Case Files (MCF)*. It was different artistically than anything out there, and it bears taking a moment to look at some of the reasons why it succeeded as it did.

The hidden-object mechanic itself suggests a mystery theme, which calls for the creation of a realistic and slightly darker mood because of the traditional precedents of storytelling associated with mysteries (think Agatha Christie, Sherlock Holmes, Nancy Drew, and yes, the Bloodhound Gang). But, the developers understood that if you plan on using an 'alternative' style, you need to be aware of the issues inherent to that style, and work to ameliorate them. They achieved this by softening the dark realism with a quirky humorous take on the subjects of the game world.

In the end this high quality combination of humor, mystery, and realism helped make the game accessible to a wide audience. The developers brought something new to the market and created the biggest new genre in casual games. In fact, MCF really transformed what we thought about casual players, and helped the industry evolve. Just a few short years ago we never would have thought a game titled "Blood Ties," which featured a murder, a private detective and her vampire buddy, could be a hit in the casual space – so we've certainly come a long way.

Audio in Casual Games

Kane Minkus, Managing Partner, SomaTone Interactive Audio

Audio has been an important component to casual game production since the industry first began to emerge. While early casual titles held a more primitive soundtrack, it was not until the last year or so that we began to see audio redefined in casual games. High-end audio soundtracks have become not the exception, but rather the standard by which game developers are striving towards. Now in 2008, the casual marketplace has reached a new level of maturity and sophistication, and well crafted music, SFX and VoiceOver (VO) for the casual game industry has become an expected part of the production chain.

With the use of full orchestral scores, highly-specialized SFX, and high quality VO talent, audio production is now at the top of the list of high production assets that are contributing to the success of downloadable games. Long gone are the days of random SFX, stock library music, and little overall attention to the creative contribution of the casual game soundtrack. Newer games like *Peggle*, *Virtual Villagers*, *Mystery Case Files, Dream Chronicles*, the *Diner Dash* Series, the *Azada* series, and even some of the classics (at this point!), such as *Zuma* and *Luxor*, all feature carefully crafted soundtracks, and have made a statement that audio is an *integral* part of a rich game play experience. Audio not only makes games more fun, but can also act to support the story line and create a branded game experience that will resonate with the user long after playing.

The Typical Soundtrack Structure

In a Casual Game you will usually find 4 distinctive parts to the soundtrack;

1. Music

2. Environments

3. Event SFX

4. Voice Over Files

Music

The music can be split into two categories – Music cues and Stings. Music cues are used to create the main musical underscore for the game with music. Typically these are composed as looping files that play continuously through a given level or section of the game.

Music stings can serve as game transitions, or correspond to events that are better represented by a musical event rather than a sound effect. These could include game situations such as win/lose, level complete, high score, or over any event that is highly important towards advancing or completing of the game.

Often music loops in a game will be split into Main Menu/UI screen Loops and Game Play Loops that range from 20 secs to 2 minutes per piece/loop (stings are often 3-5 secs long). These music loops are often played continuously on that screen until a user moves to another screen. This is the most popular structure of the use of music, but an increasing number of games are moving towards different and more creative approaches.

One such approach is to write a sound track where a complete piece of music begins, plays, and finishes resolving into an environmental soundscape, or even just into the game SFX which may be present. During this "music break" only the environment sounds and SFX are heard, before a new cue is introduced after several seconds of absent music. This is a more linear approach to the music, as opposed to the typical looping style where the music will continuously loop until the game mechanic requires a new loop to be introduced.

Another approach is to try interactive components, either with the audio engine technology, or with interesting layering techniques (that fit appropriately to the game play). One example, which illustrates an attempt to have more variation in the musical underscore without increasing the total size of the music assets, can be heard in the Diner Dash series of games. These games use a looping concept but with files broken into much smaller segments so that each cue is composed of several smaller looping files, all designed to play both randomly, and together. This allows for a 60 second cue, composed of six, 10 second sections, to play in random order, thus creating the illusion of a longer score before any noticeable looping is recognized by the player.

Another tool used to maximize the length of a score is through the use of 3rd party audio engines, such as CADI or MOD Tracker. Some of these tools use MIDI data, loops or allow programmable interfaces to trigger individual music samples - allowing for a much longer sound track because the music programmer is able to program variations of a cue over a much longer timeline - with a small footprint. Games like *Peggle* and *Bejeweled* use the MOD technology to allow for many more minutes of original music in their games, as opposed to the 5-8 minutes of linear music typically found in a casual title. However, this technique with MOD has an obvious trade-off in music quality, since all of the music is based on individual samples placed into the

MOD library. CADI is a specially designed interactive audio engine for Casual Games (actually called the Casual Game Audio Design Interface), and allows for limitless possibility of high quality music, interactive SFX and environment loops (see below) and is programmable by the sound designer themselves (full disclosure – CADI is offered by Soma Engineering, a division of my company, SomaTone Interactive Audio).

The largest complaint among developers and consumers is that the music can feel repetitive. Tools such as MOD have been used with moderate success, and other creative approaches such as the Diner Dash approach have also been successful at extending the audio soundtrack for a casual title. Perhaps the greatest improvement in the ability to increase the overall soundtrack in casual games has been in the increase in the total game size. Casual titles a few years ago were all under 20 MBs as a matter of rule. This forced the audio budget to come in at 2-3 MBs, which was a very limiting size budget. Today many casual games will be twice this size, with some even pushing 100+ MBs. This has allowed for 5-15 MBs of audio (and sometimes more), enabling developers to include much longer music cues and sound tracks.

Environments

Environment loops are pre-rendered SFX loops that are designed to place the listener in a specific location. For example, if the game is set in the middle of a train station, one would hear the sounds of trains and whistles to give the sense of being there. This is an effective way of furthering the game play experience and is a low impact way to make the game come to life without having to manage heavy coding of sounds to recreate the experience. The trade off is a higher foot print size, as these files will need to be long enough so that the player does not notice any looping. There are some tricks to managing the files size and keeping the environment feeling dynamic. For example, let's say the intent is to create a forest scene. The programmer can take a "base" loop of the core environment sounds – like wind and trees rustling – and then program the timing randomization of several sweetener sounds – like crickets and frogs – to create a dynamic environment with a relatively small foot print.

Event SFX

Event SFX are often spilt into two categories as well – Interface SFX and Game Play Event SFX. Interface SFX are tactile sounds that work well with the style of the game, the music and the interface action. Game Play Event SFX can vary wildly and are specific to each game and game mechanic. Although there are some options for getting "Canned" or library SFX (versus having crafted SFX), almost all Casual Games continue to have the SFX crafted specifically for the game to create a branded sound for the game, a polished soundtrack (where the music and SFX are mixed well together), and immersive game play that gives the game a rich personality.

One of the surest ways to annoy a game player is to have harsh or inappropriate SFX for repetitive events. It is important that any repetitive game events are given special attention by a SFX professional.

Voice Over Files

VO is the use of human speech files as sound assets in a game. These will typically cover narrators, announcers, and in-game characters. VO requires extensive production because there are more variables at play, and more people and resources are required to ensure a high quality end product. VO production involves casting the talent through auditions, directing, recording and engineering, editing, and mastering for the final delivery. Occasionally processing is also required to create a specific effect (such as an intercom or telephone effect). The selection of high quality actors and recording facilities, along with experienced directors and editors are paramount to getting the best results. Poor VO production is easily recognizable, and thus it is not recommended that VO be handled without an experienced team managing the production.

Internal Vs. External Audio Production

Most audio production in the Casual Games industry is handled externally, however, occasionally a game development company will choose to keep the music and/or SFX work in house. Primarily this is because these companies have someone on staff that can handle the SFX or music.

The advantage of keeping the audio work in house is mainly cost and attention to minute details in the sound. However, the disadvantage to this is limited resources, lower quality of production (compared to hiring a professional), and the cost of causing a team member to divert their attention from their main job.

The advantage of externalizing the audio work is similar to outsourcing art, programming, or any other creative service. Having a professional team that can give the soundtrack the attention it deserves, professional sounding results, and the creative input from an outside group all help enhance the game in ways that the internal team may not be capable of. The disadvantage is the need to rely on the capability and availability of an external group, increased cost, and the challenge of maintaining the vision of the story in the game. It is suggested that each game producer work with a team able to maintain communication and that can listen to and respond to the creative vision. It is also helpful for the audio vendor to have a history of quality and experience working on games similar to theirs.

Voice Over Recording is almost always externalized to a professional VO studio that will cast, direct, record and produce the audio recordings of the voice talent. Voice Over production has taken off in the last two years for Casual Games, and this trend will likely continue. Localization of VO has also taken off as game developers have been learning that VO is actually a very

affordable production value that can be added to enhance the game and connect with the territory in which they are distributing.

Technical Requirements of Casual Game Audio

Game audio typically takes up no more then 10-15% of the total game file size. In the past, this equated to only 3-5 MBs for the music and SFX, and thus VO was not even a consideration. However, now the footprint size has been expanded. Different publishers have varying perspectives on what is most important to them. Some still feel a small size footprint is important due the continued (although steadily diminishing) use of dial up internet connections. Others do not seem concerned with file size and are releasing games in the 100+MB range. Consequently, audio between 5-15 MBs is becoming more of the standard footprint. This is great, as the audio vendor can focus more on the options and less on the limitations; more on what makes the game complete, and less on what has to be thrown out.

In order to keep the audio footprint as small as possible, OGG has been the preferred file format. OGG is a format that has extraordinary compression algorithms and maintains a very healthy part of the original sound from the high rez version (the high rez version is called WAV or AIFF). 1 Minute of an audio file converted to OGG is roughly 500KB or less (depending on the density of the sound file), compared to the full resolution version which is about 10 megs per minute (or 20 times as large!).

While OGG is the file format of choice for most downloadable games, online games – especially flash games - predominantly use a flash converted format (from the original WAV/AIFF), or an MP3. One of the reasons no one uses MP3's in downloadable games is that MP3's will not loop properly due to an information tag at the top of the file inserted by the compression algorithm. Seamless loops are important to the music playing smoothly in a game, so this format is out the window when that production method is chosen for music playback. (Some developers have found an effective way to loop MP3's through programming, while others choose to simply create the audio in the loops in a way that seams to create a seamless effect.)

Production Process

Stylistic production choices are certainly individual to each game, but each soundtrack does go through these typical phases:

1) Requests: Game Assets are requested and the developer originates the creative plan and design based on the GDD and development of the game

2) Pre-production: Choices of temporary music and soundscapes are discussed between the audio developer and the game developer

3) Creating/Writing/Recording Original Assets: The audio professionals create the desired assets

4) Submittal and First Integration: The audio developer and game developer implement the assets and check for technical compliance.

5) Creative Feedback: The game producers will offer comments on the individual SFX and Music cues so the audio developer can make changes based on the vision of the game producer. This process will continue until all assets are deemed acceptable.

6) Final Mix/Master/Balancing of assets and delivery as individual assets or mixed stems/pieces.

The game developer can engage the audio developer at any time in game development, but most like to engage from the beginning to discuss direction. Others, meanwhile, like to bring on the audio developer a few weeks before Alpha when the game has taken more shape in terms of art and mechanic. Both have their advantages and disadvantages. A decision about how important the integration of the audio into the game play will drive the point of engagement. However, it is not advisable to start working with the audio professionals later than a few weeks before Alpha.

It is highly recommended that game developers use place holder sounds and music to ensure the game code is built to support audio from the beginning. Even using very low quality SFX will allow the game programmers to begin to assign audio tags to the game code, so that when the audio files are delivered they are quickly and easily swapped in to test and review. It is preferred that “open” or “unlocked” games are available, so that the audio assets folder can be easily accessed and alternate files are allowed to be dropped in and tested. The time required to turn over audio assets, wait for the implementation, then receive a new build is a common, frustrating, and unnecessary complication. Allowing the audio team to test the files in a build of the game that allows access to the audio folder will greatly streamline the review process, and allow the audio creators a chance to try sounds out before delivering, as well as test their functionality in a production environment.

Level Of Effort

When a game developer first engages an audio developer, they can expect a music soundtrack to take about 3-4 weeks for completion; 2-4 weeks for SFX (depending on the completion of the game), and 3-4 weeks for VO. This is for an average of 10 minutes of music, 150 SFX, 250 lines of VO dialogue and 6 or fewer characters. Although complexity will cause the final dates to vary, this time period gives the audio developer enough time to offer a few rounds of creation and feedback. Everything can get done in a compressed timeline, but there is a risk of sacrificing the audio developer’s ability to really understand the game or the developer’s vision.

Final audio is usually implemented between Alpha and Beta, with a final delivery within roughly a week of Beta.

Contractual Specifics to Audio Production

Some specific areas that need to be addressed when dealing with audio, that are not often in typical developer contracts is

- Ownership of music, SFX & VO: ownership in the industry has mainly been a work for hire agreement with all assets as a "buy out" to the publisher/developer. However, there are specifics to understand about copyright law which are often overlooked in the Casual Game Industry, as publishers usually want to own everything outright. For every piece of music that is written the writer's share of the music royalties cannot be assigned without specific clauses that mention this, and it is actually highly unusual (in any industry) to assign the writer's share to a publisher. Since Casual Game music is often not getting exploited in any other broadcast media types (TV, Soundtracks, Films, etc.), this has not really become a major conversation between developers and writers, but as we see crossover platforms porting soundtracks from one to the next, and if the marketing ever hits broadcast TV or soundtracks, this will become an important conversation! As a developer, make sure to address this and fully understand your rights as the owner and, separately, the composer's rights as the writer (the scope of that conversation is too big for this paper but more info can be explored here: http://www.answers.com/topic/work-for-hire).

- VO – revisions need to be noted in the contract, as VO recording and associated pick up sessions (additional sessions to correct or add to the previously record material) are often overlooked and can be an expensive and unforeseen cost. Of course, there are contractual differences between revisions due to audio that is not approved vs. revisions due to design changes.

- Creative direction changes – Creative direction changes are very expensive on the side of the audio developer, and they are not usually anticipated by either side from the beginning. There needs to be some appropriate clause about how to handle complete direction changes so the developer understands the penalties of changing direction half way through, and so the audio team knows how it might be handled in case it happens. This is more of an anomaly, but when it happens, no one is happy unless an agreement pre-exists about how it will be handled.

- Ownership of assets that won't be used or are not accepted – there should be consideration to ownership of the assets that will not be used or are not accepted by the game developer.

- Using Union versus Non-Union actors: it should be made clear upfront about the need to be using union or non-union actors for all VO acting.

- Credits – often overlooked, but the credits should be established before the working relationship is solidified.

The Future of Audio in Casual Games

I believe that the future of casual games will continue to see consistent use of high quality audio professional teams to develop rich soundtracks. Audio is one of the least expensive parts of the game, and in terms of value per dollar, is also one of the most cost-effective.

Are Writers Needed For Casual Games?

David Fox, VP of Technology and Co-Founder, iWin

Many hit casual games have been developed without a story and certainly without an official writing role in the credits. But as games with very similar mechanics continue to compete for the same headspace, it's the wrapping around the game activity – the theme, narrative, plot, and characters – that often differentiates a hit title from game that is quickly discarded.

Certainly, any game with a compelling story will need a writer. Often times the designer, artist, producer, or even programmer will fill this role. But even games without story involve larger amounts of professional writing than may be anticipated.

When Are Writers Needed?

There are many occasions when writing is necessary throughout the game development process:

Design Documents

Many development studios produce a creative design document (CDD) or game design document (GDD) before green-lighting a game's production. Much as a screenplay serves as the blueprint for a film, a CDD will accurately spell out all details of a full game.

A well-written document will lay out the entire game – all user interfaces, the expected art style, play mechanic, level scaling, scope, audio assets, and story. A good document will provide artists, audio engineers, and programmers with everything they need to scope the work required to create the game. This, in turn, will allow a producer to set a reasonable budget and schedule for a game.

Technical Documents

Many game engineers are required to scope the technical requirements for games before embarking on programming. Generally, a technical design document (TDD) is created. This document will identify the programming language, game framework, development environment, class architecture, minimum system specifications, and other tools necessary for game development or level design.

Tutorials

Many games have a tutorial mode to teach the game rules and basics of gameplay to the player. Often, writers are called in to make the tutorial text friendly, and conversational.

Level Progression or Game Items

Often times, writing is needed to guide the player through mission-based levels or introduce the goal of mini-games. Other games, such as the *Diner Dash* or *Cake Mania* series, have stores or virtual items that the player can purchase or upgrade to. All of these items need names and catchy descriptions to be written.

AI Dialog, Voiceovers, or Ambient Voice

A game may have a sidekick or host to guide the player through the experience; for example, Mayor Russell in *Build-a-lot,* who guides the player through their introductory levels. Alternatively, a game may make use of an antagonist that taunts the player. Other games make use of ambient voices - either triggered by game events or peppered throughout the game randomly - to add atmosphere and live to a scene. The *Westward* series of casual games, for example, is greatly enriched by many of these sound bites.

Documentation

Although most casual games do not come with a printed manual, there is usually a help or rules section. This area must include a clear explanation of how to play through all aspects of the game.

Marketing

Most casual game portals require that the developer include a concise description of the game. Making this description enticing and accurate leads to more downloads and sales.

Stories

The type of writing most evident and involved in casual games is, of course, the story. Stories usually involve a main character (protagonist) who has to deal with some sort of dilemma, experiencing various ups and downs before reaching a resolution.

A story will usually have 3 main parts; an introduction (setting the quest or challenge before the game begins, drawing the player in and piquing their interest), a second act in the middle of the game (usually with some dramatic turn-around or dénouement, keeping the player interested and emotionally involved), and a conclusion to end things when the game has been won (generally in a happy way to rewards the player).

Stories in casual games are generally told through one of these 3 techniques:

- **Cut-Scenes**: Motion picture chapters or vignettes, similar in style to television or film. These are usually spread throughout the game after every level or other major milestone. Most cut-scenes in casual games are created via 2D or 3D animation, but

could also conceivably be produced as video with live actors. Most popular hidden object games use this technique.

- **Comics or Stills**: Stories are told via a series of dynamic still images, with character dialog expressed with speech bubbles or thought bubbles. Sometimes voice-over actors will embellish the comics with actual audio. This snappy style works well with many time management games – most notably the *Diner Dash* series.

- **Prose**: The story is printed on the screen via the written word for the player to read through. This method is rare for casual games, since it is believed that most players don't have the concentration or inclination to read lines and lines of text on their computer screens. The *Jewel Quest* series of games, however, provides a novella's worth of prose for any player interested in reading through it.

The vast majority of casual games use a hybrid of comics, voice-overs, and some dynamic text or subtle character animation to achieve an immersive story that is also cost-effective.

What Skills are Required?

Generally speaking, game design documents must be written by the game designer – someone who understands game mechanics and how to compose and balance an interactive entertainment experience Likewise, technical documents are written by a lead programmer or technical lead – someone with the knowledge to research and pick the best environment and tools to achieve the desired game. But other game writing –the tutorial, marketing, ambient pieces and item descriptions– can benefit from a professional writer who can add flair, voice, and consistency to all text.

Story writing, especially, can benefit from a talented and experienced creative writer. For comics or cut-scenes, writers who have worked on films or comics are generally more successful at plotting out a visual story than novelists or short story writers. Good writers can come up with pleasing yet original plots, tie in themes the player cares about, craft nuanced and lovable characters, and ultimately know which key moments to show the player. That said, many casual games sell just fine even though the stories suffer from stock characters, cliché plots, and trite, flat, and sometimes poorly localized dialog.

There are many game developers of the opinion that "Hollywood writers" have trouble actually writing for games since they lack a keen understanding of the pacing, mechanics, interactions, and feedback between the game and the player. Ultimately, the game must come first. A good story will not support a poor game experience. The better a writer understands the game mechanic and the mindset of the casual gamer (i.e. someone who may have never played a computer game before at all), the more successful they will be.

References

One of the best places to visit to learn more about writing in games is the International Game Developer's Association's Game Writers' Special Interest Group: http://www.igda.org/writing/.

I also recommend reading Vincent Carrella's article on stories in casual games, named "Who Needs Stories," on *Gamezebo* at http://www.gamezebo.com/features/who_needs_stories.html.

Characters and Narrative

Kenny Dinkin, VP & Creative Director, PlayFirst

Introduction

Any discourse on story and character (and by extension, narrative and metaphor) in casual games should be prefaced by a brief acknowledgement of the challenges our larger industry faces in brokering the thus-far awkward marriage between interactive entertainment (including console or "core" video games) and compelling narrative (including story telling and character development).

There are numerous books and courses available on storytelling, character development, and approaches to narrative structure. Many of these focus on writing for film, television and fiction. There are some on comic book writing, and even a few for games - but next to none on casual games.

When folks do discuss storytelling's dance with video game design, inevitably they bemoan the lackluster job we, as game designers, have done (to date) of seamlessly integrating story and interactive play. But the common wisdom is that, as a relatively new medium, video games are still getting their sea legs when it comes to sophisticated approaches to story telling, defining a compelling character, or, more famously, of moving a player to tears.

The question is, where do Casual Games fit into this larger polemic? Do we operate under the same rules and are we wading through the same challenges as core game designers? Or, are the idiosyncrasies of casual games and their non-hard-core-gamer audience going to liberate the casual game designer and give him or her a uniquely advantageous position at the cutting edge of elegantly interpolating story and interactivity?

Does a Casual Game Even Need a Story?

Historically, not all successful casual games have needed story and character. After all, isn't gameplay everything? Who cares about story? Why add characters? Why add story? It costs more, right? And it's hard!

Sure, a game has to have good gameplay or you're sunk. But here are some reasons it may just be worth the effort.

1. **Artistic merit.** If video game making is an artistic medium, we should be able to use it for all kinds of self expression. Story and character are tools for entertaining, for touching people's hearts, for making an emotional impact beyond the mechanics of the game, a high score, a game's interactivity, or its puzzle.

2. **The value of character IP**. Additionally, as our industry matures, the opportunity to build character IP has an obvious financial upside. *Lara Croft, Tomb Raider.* Nuff said…

3. **IP and repeat purchase**. Additionally, casual players are proven loyalists. Once bitten by the match-3, hidden object, or time management bug, players often return to the well for repeated drinks. Characters and story provide a much needed identity marker that lets players know that 'this' hidden object series feels like an old friend, where 'that' one feels like a generic hanger-on that keeps showing up to the party uninvited. Both Jill from *Cake Mania* and Flo from the *Diner Dash* series enjoy wide recognition across the casual games space – beloved characters help those games get noticed and sell.

4. **Good Narrative = Crack**. From Charles Dickens' Victorian masterpieces, to today's *Sopranos* or *Lost*, serialized fiction is infamous for sucking in its audience and keeping them coming back to find out what happens next. For Casual Games especially, where a free trial often stands as an obstacle to a purchase, the use of story might just be the holy grail of conversion as it can be used to keep users to keep playing - especially stories with compelling characters in cliffhanger situations.

5. **Don't take our word for it! Just look at the top tens!** Over the last few years as casual games have moved from gem-swapping and marble-popping to games about erstwhile detectives and spunky restaurateurs, it has become almost impossible to find a hit casual game that doesn't include at least an attempt at story and character integration. From fairy godmothers to hapless grandmothers, lost islanders to bankrupt chocolate-makers, and mysterious dreamers to ambitious wedding planners, the characters we see in hit casual games underscore the ways in which casual game makers have taken up the banner of storytelling and character development over the last few years.

OK, but are we any good at it? How do we rise to the level of storytelling quality seen in other entertainment media like television and film and move away from an approach where the stories and characters remain at best a poorly integrated afterthought?

Picking the right theme

A rich game metaphor provides back-story, defines the play environment, adds a compelling motive to the player's game goals, and gives the user a deeper feeling of immersion into the experience.

The story goes that as core video games first began to explore narrative themes, the game-making community chose themes that appealed to..(guess who?) -- game makers! That's right,

technologists! Unfortunately, technologists aren't always the best story tellers. Why do most game stories fall short? Too often developers let the guy with the biggest DVD collection take over and assume he knows what he's talking about. Thus the over-saturation of spaceships, robots, archeological tomb hunters and dragons that blast, shoot, swing or roar their way through the game players' imaginative landscape.

Not surprisingly, given the heavy representation of women and moms downloading and playing, casual games have taken a noticeable and refreshing detour from the formulas put forth by the traditional core gamer market. Although casual games' roots might be in ancient archeological lost cities and space themed gems, over the last few years we've seen some brave experiments emerge that test the waters on broader narrative themes and more everyday characters. We've seen blockbuster games like *Mystery Case Files* and *Diner Dash* borrow from the popular arts - like prime time television - and spawn robust categories with a kind of expected formula for story and character.

Rules for creating a compelling story

[It's worth noting that a good deal of the following may be subjective. Not all stories work by the same rules or benefit from the same approaches. This section, therefore, may prove more subjective than, for example, the section on publishing or distribution models.]

As a game designer there are a host of rules to follow or break as you see fit when telling a story in a casual game. What's so different about casual games? The main difference is the audience. Whereas in a core game, the audience may forgive bad dialogue, poor character development or no story at all in exchange for super cool graphics and hi-tech themes, the audience for casual games is made up of many non-hard-core gamers whose bar for entertainment quality is set not by other games and not by spectacle special effects-laden films, but rather by compelling storytelling.

If your audience is a Middle American soccer mom, it's worth noting that, as a rule, this demographic is not necessarily moved by spectacle in TV or Film either. Here are some oft-cited oft-maligned rules of thumb for story telling in casual game making;

1. **Immersion**. Create the illusion that the player is in the story world. Take care not to shatter that illusion.
    a. **Keep the technology invisible**. Don't use the word "click", and don't mention the mouse. Don't refer to the arrow keys. Try hard not to remind players they are on a computer. Instead, immerse the user in the narrative world.
    b. **Don't break the fourth wall**. Try to avoid breaking the fourth wall (the wall between the characters on stage and the audience – thus avoid lines like "Hello there player!")

2. **Respect the player's imagination**. You don't need to tell the user every detail. They will enjoy the interaction more if you let them participate in how the story emerges.

    a. **Allow for closure**. Visual theorists call it "closure" when an artist lets a viewer fill in the gaps of a broken circle or on what happens between panels of a comic book. As a story teller, you don't need to tell every detail of your whole story. Allow the user to fill in the blanks with his or her imagination.

    b. **Start as deep in as possible**. Start the story as deep into the narrative as you can, allowing the player to fill in the blanks.

3. **Waste not, want not.** Although production values are on the rise, small file sizes and small budgets are still typically the goal with casual games. So as a development studio, unless you've got a lot of help from a publisher or a big war chest, you usually can't afford extensively animated cut scenes or tons of casted and recorded character dialogue. However, big budgets and big file sizes don't always mean good story telling.

    a. **Less is more.** Brutally edit your dialogue. Write a script for scene, then cut it in half – then take a breath and cut it in half again. It's cheaper and it's likely that your story will be more interesting if less is revealed. Most players don't want to read. If your game has a comic book page, can the player get the gist of the story just by looking at the artwork and not reading any text?

    b. **Naturalism.** Save time in writing and casting. Go for naturalism in your casting, dialogue writing and directing. People are used to standards set by television and film. No one wants to listen to an overacted set of affected lines read in a deep hoarse throaty manner, no matter how evil it makes your character sound.

    c. **Action is Key.**

        i. **Animation is expensive**. Can you use comic strips instead of animated cut scenes? If you're going to animate make sure it's interesting – ask yourself if it's really worth animating? The *Diner Dash* and *Cake Mania* series have recently migrated from static comic panels to more robustly animated cartoons for their cut scenes.

        ii. **Use tricks.** In some cases, simple director/cinematography techniques like camera panning or zooming can make a big impact. In addition, particle effects, interactive prompts, and

meta-games can all be used for narrative impact without breaking the bank.

iii. **Content in the context of action.** Never tell when you can show. Avoid talking heads with lots of exposition. If you need the characters to convey to the player some information, can you convey it within a dialogue as the players are scaling a wall or climbing a tree?

d. Rely on Audio. Audio is typically cheaper than animation as a tool for storytelling. Sometimes music, voice and audio sound effects can set a mood tell the story. For example, more and more casual games use Voice Over to help define a character and immerse a player in the narrative world.

4. **A story is different from a list.** If you're going to tell a story in your game, keep in mind that a good story is not just, "first this happened, then that happened, next a third cool thing happened." Here are some ways to avoid a boring list-like story;

   a. Foreshadow. A good story has narrative structure and offers thoughtful foreshadowing during early stages of the narrative to set up expectations.

   b. **Use a "Third act twist".** A good story then plays with or twists those expectations (usually in the "third act" or final act of the game).

   c. **Put obstacles in your hero's path and make them overcome them!** A good story requires the hero to reach deep inside and create clever solutions that *only* he/she could create.

5. **Seamless integration.** This is maybe the hardest part. Can you weave interactivity and story around each other without making the story feel contrived or tacked on as an afterthought? Playing the game should feel like you're making the story unfold further. Can the story change depending on the player's choices? Here are some tactics for pulling this off:

   a. **Get the player involved in the story.** Can the player's actions actually unlock story? (For example, finding the bottle that washes up on shore to reveal the message within)

   b. **Use Meta Structure.** Can story unlock and be revealed as levels are won? In *Chocolatier*, players reveal more and more of the family saga as they build their chocolate empire. In *Dream Chronicles*, the mystery and storyline unfolds as the player decodes her way through a fantastic landscape of challenging puzzles. In *Nanny Mania,* the player literally

unlocks characters (in this case members of the growing family) as they play.

6. **Revise! Revise! Revise!** No one gets the story right in the first draft. Believe it or not, getting the story right can take as much time and iteration as mechanics, graphics, or sound. Great writers often claim to be lousy writers, but exceptional revisers. Same goes for game stories, but of course, that time needs to be integrated into the schedule.

Defining Characters

Here are some starting points;

1. **Do you know who your character is? Creating a Rich Backstory.** Truly knowing who your character is will make it much easier to write natural dialogue and compelling stories. Take the time to define your characters' back story, their likes and dislikes, family history, strengths and flaws - even their pet peeves, quirks, and catch phrases. If you do this right, you will know much more about your character than you ever will be able to tell in a small file game, but it will make the dialogue flow freely if you can really channel your character and see into their inner world.

2. **Do you care about your character? A lot?** If you don't care about your character then don't expect the player to care either!

3. **Draw on what you know.** Don't just add a character because you think you need one. Draw on your own experiences and your own world to create more believable characters that people will care about and understand.

    a. **Is your character someone with whom players can identify?**

    b. **Is your character aspirational?** Someone players might aspire to be?

    c. **Consider an ensemble cast.** Take a look at Gamelab's *Miss Management* for a valiant attempt at ensemble story telling.

4. **Work with your artist.** The character artwork should tell you as much as possible about that character (while avoiding stereotypes).

5. **Test!!!!** What we think is appealing may not be appealing to our audience. Draw out multiple versions of your characters and run them by potential players. TEST!!

Casual Genres and Story Telling

1. HOGS and narrative. Hidden Object Games have proven to be particularly rife for story integration. From wacky cartoon families like *Big City Adventure* and *The Scruffs*, to more serious dramas like *Mortimer Beckett* or *The NightShift Code*, the notion of finding a hidden object that is an important part of the narrative offers an elegant way for game designers to wrestle with

story integration. Oberon's *Dream Day Wedding* franchise showcases how HOGS have proven to be a particularly viable game genre for robust story integration, and Big Fish Games' *Mystery Case Files* series offers players a familiar tongue-in-cheek detective story with varying narrative themes from game to game.

HOGs have also proven a ripe environment for weaving in licensed entertainment properties. Of note are titles launched off of popular paperback novel franchises like *James Patterson's Women's Murder Club, Agatha Christie's Death on the Nile*, and even popular movies like *Righteous Kill.*

2. Time Management Games and Narrative. A few story-based franchises have emerged from the time management genre and are worth noting here. Dinertown, is PlayFirst's story world where Flo from *Diner Dash* lives alongside all her the DinerToon Character pals. Dinertown is replete with a robust cast of characters that have spun off over ten time management games ranging from four *Diner Dash* sequels and ten expansion restaurants to *Wedding Dash*, *Cooking Dash* and even *Parking Dash* – each starring its own DinerTown character. Similarly, *Cake Mania 3* from Sandlot Games chronicles the ongoing adventures of Jill, and Realore's Jane (from *Jane's Hotel* fame)has moved from hotel management to real estate and back to hotel management. There are many more.

3. Adventure Games and Narrative. Adventure games traditionally demand the greatest attention to detail around story integration and were largely absent from the casual games landscape until 2007 when both *Dream Chronicles* and *Azada* released to enormous success. Since then a number of adventure games have appeared, usually showcasing mysterious (and often gorgeous) graphics and cinematic soundtracks. This new breed of casual adventure game aims to immerse the player in the details of the story world as they wander their way through a series of puzzles and mini games.

Please – Be Original!

In closing, one can't conduct a discourse on story and character in casual games without mentioning the industry's oversaturation of the same type of vanilla-personality characters and storylines. We have an army of young women starting their own businesses, or taking over grandma's business, trying to make it big. Is this good for the industry? Is it good for the developer/publisher?

As one game designer recently put it: "If we've got Cookie Monster, why do we need Muffin Monster?" It's tempting to just play it safe and emulate what the audience has already embraced. It's hard to be original, especially in a formulaic medium. How do you make a story unique when the structure often demands a similar arc—like moving from location to location, upgrading your venue, etc? The efforts of going out on a limb may prove well worth it, as common wisdom dictates that a developer will make more money with a fresh original IP that hits a bull's eye in an area of the market that is underserved.

To this writer, it is disappointing to see such lack of daring, when one of the key advantages to 'casual' over 'core' game development is that - despite the fact that budgets are climbing - it's not *completely* cost-prohibitive to take a chance in casual development.

It's worth noting that more complex and mature narratives are still nearly non-existent in the casual marketplace. Yes, we've begun to broach the Murder Mystery airplane novelette, and the 1970's situation comedy, but surely there are women out there watching shows like *The Wire, Six Feet Under* and *Entourage*? We are only now beginning to see casual titles that even approach this level of daring.

So where can we find new sources of inspiration in the sea of narrative sameness? There are great stories everywhere: Newspapers, History Books, Nature Shows, Fables, The Bible, Comic Books, etc. We can also explore advanced story-telling techniques: non-linear timelines, anti-heroes, multiple protagonists. Mostly, these will break down in the rigid structure of a game, but maybe some small piece will take hold and lead to something interesting.

Lastly, it may pay to keep an eye on the core game space. Games like *Portal* and *Bioshock,* which offer advanced story telling techniques, disorienting story twists and even unreliable narrators, may not be right for the casual audience but they may still offer inspiration and illumination as we make our way through the darkness of niche and formula to the bright light of mass market success.

QA & Beta Testing

Jim Stern, VP of Product Development, iWin

So, you've got a great game that's in the final stages of development and you want to make sure that you give it the best chance to succeed. You go through your check list and think to yourself, "I've really done it this time. I've created the best game and it's going to make me millions! I have a great design, developed the code myself, integrated art and sound, played it a thousand times over and I don't have a single bug left to squash. Even my Mom likes the game. I'm done, right?"

Wrong. Does the game continue to function normally if the player receives an IM while the game is running? Will your average 'non-gamer' already have all of the game's required dll's? Does the game crash or come to a complete standstill if it is left running overnight? What percentage of players will drop out of the game after the first two or three levels, and why? These are just a few of the questions that need to be answered through appropriate QA and Beta Testing techniques before any game is released to the public.

Organizational Structure

Your organization should be set up flexibly so that you can scale as the company grows. In a startup environment with a production team of up to 7 or 8 people, you can typically budget one QA tester to test your game. Early on, it's best to keep your overhead down by hiring contractors rather than employing full-time testers. As you start building simultaneous production groups, plan on establishing a full-time QA team - again using outside contractors to accommodate peak testing times. Depending on how you structure the rest of your organization, the QA team should typically report to the head of production or development.

With 3 to 4 full-time QA testers, make sure you have identified a QA Lead who has the ability to set standards for your specific testing needs; such as creating test plans, properly managing bug databases, and hiring additional people. As the team continues to grow, it will be important to have a QA Manager who will direct and set expectations across the entire team, though each QA tester should have dotted line responsibilities to the Producer on an individual game.

QA Cycles

Timing is important when assigning a QA tester to a game. If they are assigned too early, the developer may go ballistic with the barrage of known bugs reported against a test build. If they are assigned too late, the testing may be spotty, with gaps created by a tester who's not adequately familiar with the intricate details of the game.

The best time to assign a QA tester to a game is shortly before the game reaches Alpha. For the sake of discussion, assume that Alpha means "feature complete" – meaning that all aspects of the design are implemented and you can play through the entire game, though it may be very buggy and still contain placeholder art and sound. The testers should fully absorb the Game Design Document and review the current build of the game to familiarize themselves with the game play, scope, and potential risks. Plan on budgeting 2-3 weeks for the testers to understand the game, and develop a Test Plan prior to the game being submitted to Alpha. Once submitted, it's fair game. Depending on the size and stability of the game, plan on spending 4-8 person-weeks testing the game. QA should be intimately involved in reporting, tracking, and regressing bugs, prioritizing and identifying those that are showstoppers before the game is released into the Beta phase of development. QA should also be involved in all milestone reviews from this point forward, presenting a list of all open bugs broken out by severity (i.e., critical, major, minor, feature enhancement).

Once the game has reached Beta (for the sake of discussion, assume that Beta is feature AND content complete), you should plan on spending an additional 4-8 person-weeks of testing. QA should continue managing the bug database and be involved in any regular meetings concerning the game. Ideally the code should be frozen before the game is submitted to Beta, but we all know we don't live in an ideal world. Any feature updates, level changes, and even minor improvements need to be updated in the Game Design Document and reported directly to the

QA analyst so they can verify the changes have been made correctly and do not have a negative impact on the rest of the game.

When you're ready to declare the game Gold Master, again make sure QA is involved with the final signoff, identifying all open bugs and those that must be fixed before shipping the game.

Here are some of the common pitfalls you should avoid:

- Time wasn't budgeted upfront to write a complete Test Plan
- QA doesn't have sufficient testing time before signing off on a milestone
- Production team makes changes to the game without informing QA
- Bugs are posted without delineating severity or priority
- Deciding not to hire a tester because you think the developers and producer can test it sufficiently
- QA tests that focus only on playing the game from start to finish without trying to break it, purposely losing levels, or testing the impact of external applications

Best Practices

Below are some guidelines that will help make the testing process run more smoothly:

- Create a strong Test Plan. If your Game Design Document is current and complete, a Test Plan should be very easy to generate. Don't just go through the motions with the Test Plan - the producer and game designer should work together and identify the biggest areas of concern, and they also must sign off on the Test Plan.

- Create cheats to access all parts of the game. These cheats can also be used to set parameters (i.e., score, lives, time) that will help test edge case scenarios that are hard to access by playing the game sequentially.

- Create a checklist that clearly identifies different parts of the game that must pass testing whenever a new build is released (whether due to a bug fix or build for a new distributor).

- Put together a comprehensive list of files that must be included with every build to ensure that no files or directories are missing, mislabeled, or misplaced.

- Test all aspects of the game (i.e., spelling, art glitches, sound files, transition screens, EULA/ReadMe files, minimum machine requirements, full screen/windows, different operating systems and hardware configurations)

- Distinguish between Game Play Testing and Application Testing. Game Play Testing should focus on all aspects of the game, including levels, power-ups, and standard rules. Application Testing focuses on areas not required to go through the game (i.e., getting

unexpected IM messages, switching from windows to full screen, rapidly clicking on buttons, running the game overnight to test for memory leaks and generally trying to crash the game). Both are equally important.

- Don't skimp on testing. It will only hurt you in the long run. Many portals are now testing games before launching them. If they are buggy, this will delay the launch. Other portals just make sure the game launches, yet you may be barraged with a high volume of customer complaints if you release your game before it's ready, potentially having the game removed indefinitely until a patch is made available.

Bug Tracking

Tracking and regressing bugs are just as important as finding the bug itself. If you don't report it accurately or regress the fix, you may as well ship the game without testing it at all. Below are some key points related to bug tracking that you should evaluate when setting up your QA team:

- There are many databases that exist that allow you to track your bugs efficiently (i.e., Bugzilla, Jira, QuickBase). Whatever you choose, make sure the system allows for categorization by severity and priority, assigning owners, automatically notifying key people with updates, complete descriptions, and attachments.
- All known issues from Alpha onward should be tracked and addressed appropriately
- All bugs should be assigned an owner at all times.
- All bugs should have clear descriptions of the problem, the expected results, and the specific steps for reproducing the bug. Screen shots and any relevant debug files should be attached to illustrate the issue.
- Save game states so you can reproduce a bug easily and quickly.
- Use the bug database to track Feature Enhancements as well. This will help with the design phase of the sequel if the game is successful enough to warrant another version.

When to Outsource

As mentioned earlier, QA should be outsourced when you don't have enough projects to keep a tester employed full time. However, there are other instances where you may want to rely on outside sources to help with your testing:

- **Configuration testing -** If you don't have a QA lab that is equipped with all the different target platforms (including operating system, hardware specs, sound cards, DirectX versions, etc.), you should consider outsourcing to a testing facility that can run tests across all relevant platforms. They should identify not only whether the game fails to

run, but if it doesn't perform optimally or provide the expected results on a specific machine. Remember to have the game tested on low-end as well as high-end machines, as results will vary.

- **Games ported to other platforms** - If your primary focus is not on a single platform, make sure you have an experienced (and preferably certified) QA team that can pass the required testing certifications for the additional platforms (i.e., console or handheld device). Mobile development, for example, requires testing across hundreds of handsets, which typically is not financially feasible for most developers that don't specialize in that platform.

- **Accommodate ebbs and flows in testing cycles** - Even under the best of planning, schedules may change overtime requiring an individual to be on multiple projects simultaneously. If this happens during the final stages of getting a game to Gold Master, this may be too taxing for the tester. In this case, you will want to have some additional resources that can help on an as-needed basis.

- **Match up time zones -** If your development team is in a different time zone than your QA team, you may want to outsource QA to synch up the times to promote more real-time communication in identifying and regressing bugs quickly. Sometimes the time difference can work to your advantage to do full regression testing while the developer is offline, but other times you will need immediate responses.

When you do use outside resources to augment your testing, remember to keep the following considerations in mind:

- Assign an internal lead QA tester who will be the main contact for any questions

- Provide detailed Test Plans (or require that upfront as the first deliverable)

- Set up a budget (stating how much overage is acceptable without prewritten authorization)

- Define expectations upfront (i.e., Game vs. Application Testing, hours to spend testing the game, method for reporting bugs, access for latest game builds)

- Decide on domestic vs. international testing. While overseas testing may be less costly, it may also cause time delays or not be effective in identifying bugs with your native language. The contract should clearly outline the expectations and communication should be frequent.

Beta Testing

So your Aunt Edna loves the game. She may be the discerning critic in your family, but she may not be the best gauge as to how well your game will fare in the general marketplace. What would happen if no one could get past level 2 because it was too hard or had a bug that prevented the untrained person from progressing to the next level? Is it really worth waiting until the game hits one of the major portals to find this out?

Give your game the best chance to succeed and consider running it through focus groups or beta testers before releasing it to the general audience. Here are some steps to keep in mind:

- **Focus Groups**
  - Typically done in small groups (3-10 people) with concentrated effort spent on reviewing how an individual reacts to the game play - often including videotaping and follow-up questionnaires to analyze the results.
  - Timing is dependent on needs
    - Timing should be early enough to validate the game is fun or after Beta when the features are in and the rules are self explanatory
  - Internal vs. Outsourcing
    - Costly to do externally, but you can generally get more reliable and unbiased results
  - Steps to running a successful focus test
    - Recruit people (pre-screen for availability, demographics, interest in games)
    - Testing should be no more than 30-60 minutes for each session
    - The test administrator should watch in silence and take notes as the tester plays the game, paying close attention to:
      - How intuitive the game is to play
      - Whether the tester is enjoying the game
      - Areas where the tester is confused or having trouble
      - Verbal feedback from the tester
    - Allow time to ask the tester questions about their experience, including any questions targeted to address potential concerns about specific game features
    - Don't forget day of event planning (parking, greeting visitors, setting up computers, providing snacks, video camera, questionnaires, cash for participation)
    - Follow up is key (analyze results, provide feedback to product team, keep database of testers for future needs)
  - Plan on running internal company "mashes". Some of your most vocal players may be the people sitting right next to you. Host an internal review of the game, using contests and food as incentives to get people to participate. This

will not only help identify bugs, but also get people excited about the impending launch. Have a contest for the highest score or the most severe bug found, or even scatter trivia throughout the game to make it more fun.

- **Beta Tests**
  - Typically done in large groups, and thus allows for a much greater statistical significance of feedback. A good Beta Test involves a few hundred participants.
  - Generally involves pre-qualified players of games who are interested in previewing games and providing feedback.
  - Steps to Running a Successful Beta Test;
    - The game should essentially be ready for release, with the ability to make necessary changes based on the test results.
    - Recruit participants through newsletters, mailing lists, or publicized beta programs if you have access to a large number of gamers (i.e., if you run a portal). For smaller development houses, coordinate directly with the publisher to solicit feedback from beta testers.
    - Most beta testers are motivated by the opportunity of previewing games before they are released. For additional incentives, consider offering coupons for your games, sending a free copy when the game is released, or raffling off a coveted item (such as a Wii console).
    - Consider embedding a level tracker to validate where the game is too easy or too hard. The tracking mechanism should identify length of time spent in each level, level reached during the first hour of game play, and maximum level reached.
    - Create a survey to solicit subjective feedback as well
      - Limit the survey to no more than 8-10 questions so that it is not overly cumbersome or time-consuming
      - Approximately half of the survey questions should be quantifiable so that you can review the results in aggregate (i.e., On a scale from 1-10, where 1 is the least interested and 10 is the most interested, how would you rank your interest in the storyline?)
      - Allow some open-ended questions that will allow for feedback on what the testers liked and didn't like, giving them the opportunity to provide feedback on issues you might not have otherwise realized were important to them
  - Some publishers or distributors who have an existing install base of players can help gather feedback for your beta test. However, you should clearly communicate the game is in Beta testing and that the players agree to fill out a questionnaire upon completing the game.

Life Cycle of a Casual Game

Andy Megowan, Creative Director, iWin

The life cycle of a casual game ideally looks a lot like the career of a Hollywood star. Every star's rise to fame is different, but the entertainment industry has many well-established stops along the way. Your star casual game may not necessarily hit every single stage, and terms and expectations change at each studio, in each culture, and with each distributor. A casual game may merely touch on a stage for a few minutes, or for as long as a year.

Let's call our hypothetical game—or actress— *Suzy Starlet*.

Pre-Production

Who is Suzy Starlet? Why is this young performer even here? Giving Suzy a chance at the spotlight will take lots of planning and effort. Image counts for a lot when making that good first impression. Suzy must be attractive, with a look that is both fresh and familiar, in order to get the attention of people bombarded with other hopefuls every day. And there must be something engaging, after that first impression, to leave audiences wanting more.

Start with the pitch.

In general terms, what is the nature of the game, and why must it be made? Is it a response to market pressures? Is it a bold new innovation? Is it another chapter in an engaging story? Identify one or more big ideas. These ideas will act as guiding concepts as the details get filled in, and as the hooks that will help others envision the game before there is anything to see.

Make plans.

Plans help everyone grasp the nature and the scope of what the game will become. Create a central repository for ideas, images, plans (and contingency plans!). From this wealth of data, apply disciplined reasoning and thought to extract and organize some key information about what's coming. This will be your strategy for making the game a reality. And in the absence of a product to show, the plans for getting the game done are all that stakeholders can see before committing to invest in the creation of a game. This plan is also an insurance policy that demonstrates awareness of the scope and the risks.

Some more common forms of documentation fall into these categories;

- **What needs to be done?** In addition to elaborating on the Pitch, *Game Design Documents* detail the mechanics of how things work and relate to each other, stories, characters, dialogue, environments, and stylistic decisions such as look, feel, and art direction. This documentation should also demonstrate an awareness of similar or competitive products and how this particular game will differentiate itself.

- **How will it work?** Technical Design Documents are blueprints for how the game code must be constructed. Identify the target platform and hardware specifications, the tools that are needed, file formats, coding specifications, and anything else that allows engineers to see the whole and all of the parts.
- **How on Earth will this get done?** Write down management plans and the scope of work involved. Identify the key players, their roles, and their strengths. Put together a schedule that identifies dependencies, priorities, and how much time is needed (or available). Determine how much it will cost to create this game.

Production

It takes months of hard work to prepare Suzy to meet the world, and more work just to generate interest in Suzy's eventual debut. Suzy is more than an individual now; she is also a network of support people all doing their part to make Suzy appealing, and get her in front of as many potential fans as possible. Her team works month after month to refine what Suzy is. There's a whole lot of polish, poise and cosmetics that can be brought to bear, so the challenge is to still let Suzy's unique personality and genuine charms shine through, to differentiate her from the swarm of other hopefuls.

Getting Ready

Bring together the production team. If there are legal issues involved such as patents, licenses or intellectual property, get those squared away as soon as possible. Distribute the docs to everyone. In some cases, the documentation is iron-clad, while in others it's a point of departure. Some teams favor 'live' documentation that chronicles and adjusts to changes.

Prove that it works (or doesn't work)

Be practical. If there is any uncertainty that the game will be fun, or appealing, or successful, make those determinations first. Build something rough that proves (or disproves) the validity of the game. Catch problems and solve them as early as possible. Mock up visuals, and try out prototypes. Determine what's appealing as pure mechanics, and what relies upon presentation for its strength.

Hitting the Alpha Milestone

Definitions may vary, but for people tracking the progress of a game in broad milestones, the first major one is frequently called an "Alpha" - a build where all of the mechanics of the game are all in place, and the game can be played through from beginning to end. Content need not be anywhere near final, although it is very useful to have at least one portion looking the way that it will in the finished product. An Alpha should also be complete enough so that testing and quality assurance makes sense.

Hitting the Beta Milestone

The next major milestone is when the game is complete, but not yet flawless – typically called a "Beta". All features, content and code is in. Dedicated testing to uncover and eliminate hardware, performance, balance and other issues should begin. Work begins in earnest outside

of development for the marketing and distribution. If the game is going to be released in North America, begin the Entertainment Software Ratings Board (ESRB) submission process. Prepare marketing materials that show off the games unique style and environment. Allow limited previews to the press and to test groups to fine tune the game mechanics, pacing, and presentation.

Looking ahead

During the final days as the product nears release, lay the groundwork for what lies beyond. Prepare the game for globalization by making the game as easy as possible to translate into other languages. Look at what hasn't been done and what can be done, and agree to set it aside for expansion packs or sequels. Making the decisions about what to leave for future products will help control the scope and features in the current product.

Limited Release

Suzy's big day comes and she's seen by people everywhere. Maybe not as many people see Suzy as marketing would like, but enough people see her in action to gasp, "Ooh! This is wonderful! Give us more Suzy!" They tell more people, who also want to see Suzy. And a star is born.

There are necessary evils.

Now the life of a casual game leaves the hands of developers and producers. Business people secure distribution, copyrights and trademarks if they are not already secured. Marketing people deploy press releases, screenshots, links to sites that carry the game and other promotional materials.

The root of all evil

The motivation for a distributor to distribute a game is to get money to change hands. As of this writing, the most prevalent means of making this happen is to distribute a game for free with a timed lock that cripples or shuts the game down after the player has seen enough to determine whether to purchase the game. At this time, the debate about the evils of Digital Rights Management (DRM) and piracy is raging, and no single solution is emerging as the winner.

But there's good news, too.

Casual games, almost by definition, are released first online and are easily downloaded by potential customers everywhere. Many companies will fund development in exchange for control of distribution. Portals, for instance, often fund development in exchange for an exclusive distribution deal that can range from a week to perpetuity. If that's the case, then the people who funded the development are stakeholders in the publicity and marketing, and will do everything they can to maximize coverage. The developer is responsible for creating the product, and the distributor is responsible for collecting customers and exposing them to the product.

The three-way conversation

With the release of the game, the developer or distributor opens a dialogue with the customers and players. Someone will take charge of creating a common forum for discussion about the game. If the developers and distributors don't seize this, then savvy customers will. Offer a place for customer support, customer relations, discussions, and other forms of community that will emerge as a byproduct of the game's release. People passionate about the game will gather here and become a valuable resource both to other customers and to the developers.

Wide Release

Suzy's work is quickly translated to foreign languages to increase her worldwide exposure, and the money and adulations are rolling in. Ambition increases with the accolades, which in turn leads to more opportunities for Suzy to be enjoyed by audiences in new ways. She shows up on different media, and becomes a spokesperson, used to help other starlets make it big.

New life in new forms

If the game was a commercial success or if stakeholders believe that the game will enjoy commercial success in other forms, then the game is now ported to different hardware platforms and formats. The distributor or developer may appoint a development team to rebuild the game for such diverse hardware as PCs, mobile devices, consoles, and handheld gaming devices. The game can have its language- and culture- specific assets translated to different languages for release in other countries. If the game was a Windows or Mac executable, then an abbreviated version of the game is often developed in Flash to easily run in a browser, acting both as an interactive advertisement for the full game and an advertising revenue-generating version.

Another round of promotion

As exclusive distribution winds down and the game hits considerably wider distribution, the game often experiences a new surge of interest as several different distributors take an interest in showing the game to their customers. It is here that most games hit their peak sales, as they are seen by the largest number of potential customers.

Extended Life of the Product

The spotlight can only hit so many celebrities at once, and new ones are always being created. Suzy's career is far from over, though. The attention and demand are diminished, but Suzy is in good company with other former celebrities, putting in more mundane and accessible appearances. The portion of the public that's immune to buzz and fame, or who simply came to know her a little later than normal, may still find places in their hearts for Suzy, and her popularity continues to quietly spread.

The Long Tail

Unlike hardcore games with their 1 to 3-month sales window, casual games currently have a sales tail of 7-12 months after initial release, depending upon the initial commercial success. As

of the beginning of 2008, the casual games market is saturated with hundreds of games featuring remarkably similar content and mechanics. If a consumer enjoyed one casual game, the odds are highly in favor of that consumer eventually trying all of the similar ones. New opportunities, such as advertising placed in download PC games, offer additional opportunities to extend the revenue-generating window of your title.

I'm not dead yet

While it is no longer the game's heyday, with sales through the roof, any game with merit will still trickle into the hands of people who enjoy it. Some games that were initially distributed online will make their way to the much more expensive retail channels as boxed products. For various seasons and promotions, many games will be offered at discounts, or as part of multi-game bundles.

As Suzy's career slows to a more relaxing pace, there is a choice to be made. Will Suzy be reinvented ad presented to the world once more? Will she renewed, but retain those aspects that people fell in love with when they first met her? Or does Suzy slide gracefully into retirement? After all, there are other stars, eager for their own chance to shine.

Localization

Jim Stern, VP of Product Development, iWin

Why should I localize my casual game? Aren't most players used to seeing the game in English? Believe it or not, there is a very significant market for localized games. In fact, localized games currently can account to an additional 25-40% of your sales, with the numbers constantly increasing as the market extends to other countries. A majority of the increased revenue is being generated by European distribution, though the localized reach for translations in Asian and Latin countries is quickly picking up steam as well.

While some folks may tolerate playing a game in English, they are much more likely to buy the game if it is in their native language. If designed initially with localization in mind, the game can be translated fairly quickly and cheaply.

Here are a few hints that will make the process more seamless:

- Pad space in the game for languages with longer word translations, such as German (50% more). Remember this is true not only for story text, but for button text as well.

- Put text in separate text files (i.e., cfg or xml) so that a translator does not need to access source code or compile the game in order to localize.

- All images with text should be identified upfront with the corresponding psd layered files for easy generation. Use a spreadsheet to identify source art and final images that appear in the game.
- Provide cheats to access all parts of game with text. QA should have a checklist of all pages to review when localized versions are provided.
- What to do with VO? – You can either translate the voiceovers into the different languages, or you can provide subtitles that you translate instead. Keep in mind that some people play with the volume turned off, so it may be more effective (and cheaper) to focus on subtitles.
- Remember to account for special characters (i.e., umlauts and accents) that need to be supported in the font you use. Character-based languages (such as Japanese, Korean, and Chinese) require UNICODE support.
- Use an order-independent system for any sentences or text that is concatenated. If your concatenation relies upon first plugging in a verb and then a noun, but a Japanese sentence would read noun-verb, you lose.
- Remember that a supporting flash game, and any other supporting materials, will need translation as well
- Keep in mind that localization specialists typically charge per word, along with a management overhead expense.

Languages you should consider translating include:

- EFIGS (English, French, Italian, German, Spanish)
- Dutch and Swedish (which are becoming more popular)
- Character-based languages, such as Japanese, Chinese, and Korean. However, keep in mind that Asian markets treat games as services, not products, so games that rely upon DRM will not make money, while games that generate revenue through their 'service' aspects will.

Testing considerations:

- Have the original testing team run through checklists to verify that nothing broke in the localization process.
- Unless you are an expert in the localized language, make sure the localizers have a qualified independent testing team to verify the translations (or hire a separate company to do it)
- Keep a special eye out for:

- Commas vs. periods (especially in numeric representation). For example, US 'billion' (1,000,000,000) vs. UK 'billion' (1.000.000.000.000).
- Apostrophes and quotes (some foreign fonts don't support them)
- Accents and umlauts
- Text appearing correctly (i.e., characters do not get truncated, text does not run outside of the intended space)
- Word order
- Summary pages (i.e., map and high score screens)
- EULA and Readme files
- HIPSoft's 'X-Test'. All Hipsoft games feature "x-test" mode, in which all strings read in from a text file are replaced with the letter 'X'. When the game is run, everything should be an 'X". Anything that is still in English, they know they need to globalize.

Other Things to Consider when Localizing;

- Trademarks are typically US-only. You need to apply separately for other countries.
- Different countries have their own versions of ESRB ratings. Remember to apply for them individually as needed. Some of them include:
  - Pan European Game Information (PEGI)
  - Unterhaltungssoftware Selbskontrolle (USK) – Germany – www.usk.de
  - Entertainment and Leisure Software Publishers Association (ELSPA) – British – www.elspa.com
  - Computer Entertainment Rating Organization (CERO) – Japanese – www.cero.gr.jp

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Intellectual Property

Eric Lamendola, GM, Slingo Inc. and Tom Buscaglia, TheGameAttorney.com

IMPORTANT – Absolutely nothing in this section is a replacement for professional legal counsel. This whitepaper is here to help bring certain concepts to your attention; a competent intellectual property attorney should be contacted whenever dealing with IP rights and protection. Most of the concepts discussed herein are based on United States Intellectual Property laws and trade behavior. Intellectual Property rights differ between all countries, however most offer protection for Copyrights, Trademarks, Patents and other IP rights.

Definition

The term "intellectual property rights" denotes the specific legal rights which authors, inventors and other IP holders may hold and exercise, and not the intellectual work itself (http://en.wikipedia.org/wiki/Intellectual_property). This legal definition carries several implications when it comes to the creative and collective works within games –

throughout this article, the term IP will refer to the tangible product that is created by the author, which may include any or all of the following (this list is not intended to be complete or exclusive):

- Game designs, concepts, ideas and mock-ups thereof
- Graphical designs, mockups, renderings, drawings and concept art
- Client-end source code (any language), pseudo-code, logic builds, flow charts, concepts and mock-ups
- Server source code, communication protocols, run-time environments and logic builds
- Completed works independent of the platform they were designed for
- Essentially any of the creative work that goes into the design and development of a game, whether or not the game is ever completed or released

The Importance of IP

Intellectual Property is the cornerstone of all game development. From conception through completion, there is a creative process that stems from one or many people in order to develop a game. Everything that goes into that process, from everyone involved, is the IP of either the individual, team, or the company that has hired them to do the work. This IP, whether as a singular concept or in the collective sense, is the tangible asset that is created.

The IP that is created during the development process can be bought, sold, licensed, traded, upgraded, and can have a tangible fiscal value to a company. Some companies exist almost entirely on the basis of licensing their IP. In fact, some of the earliest game companies are still licensing their original game IP from over 20 years ago (see: Atari, Activision, Namco, etc.)

Relevance to Game Companies

The IP that is created during the game design and development process becomes an asset to the person or entity that owns it. There are some inherent rights that are granted during the creative process, while others may have to be sought or purchased. These rights allow entities or game companies to sell or license their IP to generate revenue.

Some game companies have put significant capital expenditures behind the development and licensing of their IP. These companies have extensive portfolios of intellectual property and continue to both create and acquire more due to the nature of

the IP business. For example, Hasbro has licensed many of their games into multiple channels - Monopoly™ being one of the most widely used. Monopoly is not only played as a board game, but is also found as a computer game, a slot machine, an instant lottery ticket, and throughout several other media.

Development of solid IP is also the first step in creating a brand. Brands are developed over time and are expanded through gaining consumer trust, the release of additional products within the trademark, and ultimately by creating unique brand equity. Not all brands are met with wide acclaim, but the successful brands, their trademarks, and the brand equity they develop, are all based on solid IP.

Key Steps in Dealing with IP

There are 3 main steps when it comes to dealing with Intellectual Property;

1. **Creating IP** – The actual creation and generation of IP
2. **Protecting IP** – Ensuring that the original owner maintains rights to the IP and that others cannot infringe upon those rights
3. **Utilization of IP** – The actual sale, licensing and use of the IP once it has been created and protected

1. CREATING IP

Overview

The creation of IP is actually easier than it sounds. Any time a pen is put to paper, a line of code is written, or a note of music is put into a loop, some level of IP has been created.

Not all IP-related ideas are completely original either. In fact, many great works of IP are a combination of other ideas, or expand upon ideas that have already been created. Generally speaking, the closer you are in the food chain to an original idea, the easier it is to create brand extensions based on the IP you have created.

Categories of IP

When it comes to the originality of game ideas, there are the following categories to consider - each with their own strengths and weaknesses;

1. **Completely original ideas** - Furthest to the left on the idea spectrum

   These are the ideas that are completely original and nobody has ever done before. These types of games are usually the hardest to create due to the sheer volumes of influence of other types of games. Completely original games

usually feature completely new game mechanics, new story lines and concepts and are not like any game that has come before it. They will usually either pave the way for a new genre of games or fade away into obscurity as players reject the concept. While the expression of the idea in the game is subject to the protections of IP, in most cases the idea itself is not.

Many genre-defining games are credited as completely original ideas, when in reality they are combinations or derivatives of other ideas. There is a significant difference between being 'first of its kind' and genre-defining. Being 'first of its kind' awards certain kinds of IP rights (see: Protection of IP), while being genre-defining generally leads to more notoriety and high sales volume (see: Utilization of IP). For example, *Puzz Loop* is generally regarded as the 'first of its kind' marble-popper game, while *Zuma* is generally regarded as the genre-definer.

2. **Combination of Ideas** – Using existing IP to create new IP

   This level of IP is born of 2 or more existing ideas. Utilizing the best features from other works or IP, or "cream-skimming", allows developers the flexibility to analyze what has worked best in the past and to take these ideas and combine them into a new idea. These are usually games that can be described as "It's Game A meets Game B".

   Combining Ideas allows developers the flexibility of using their game design talent without having to worry about whether or not players will rebel against the format. This is chiefly because the elements of the new IP will have characteristics of the games that preceded it, and thus will be familiar to the players.

   What separates this from a Derivative IP is that Combination IP generally creates new IP in and of itself.

3. **Derivative Ideas** - IP that comes directly from other IP with some innovation

   This can be used to describe IP that is akin to "standing on the shoulders of giants". Most sequels can also be described as derivative ideas. The premise here is to take what another developer did and make it better, or take some original IP you already have and make a new game out of it.

   Usually, these types of games are old IP with a new twist - some kind of major modification that can clearly identify it as different from the previous IP. For instance, if you took a game like Tetris and inverted it so the gravity moved

upwards. *Welltris* is a great example, as it took the Tetris concept and made it with 4 "walls" instead of one.

Developers need to be very careful here if they do not innovate with their own IP, as they run the risk of cloning a previous game (see: Clones). The distinguishing characteristic that separates a derivative idea from a clone is that there is at least 1 major functional change to how the game is played that separates it from the previous IP.

4. **Clones** - Derivatives of old IP without innovation

This is one of the more nefarious areas of game development. Clones can be described as non-original games, or games that are derivatives of older IP without any innovation. They rely on utilizing the work of others almost exclusively with minimal or no changes.

Cloning is generally frowned upon in the Casual Games industry, however as of the date of this article there has been minimal legal action by companies in order to protect their IP from clones. Since the number of recognized "play actions" in the casual game space numbers less than 50 (*source: Game-Sales-Charts.com*), and hundreds of casual games are released each year, most games are either Derivatives or Clones of other games.

The cloning debate has one side which believes that the only way for the game industry to expand is to create better games based on older concepts. The other side believes that developers who put the time, money and effort into developing games should be protected, and that Portals should not carry games that are clones. Whichever side you are favor, one thing is for certain - cloning IP can have major legal repercussions if a developer is not careful and infringes on the rights of other IP holders.

2. PROTECTING IP

Overview

Protecting IP is not a difficult proposition. Copyrights, for example, are afforded as soon as pen is put to paper, while others must be sought. It is important that if you plan on dealing with IP rights that you consult an IP attorney or professional. Protecting your IP can be a costly affair, but if you have spent the time and investment in creating IP, then you need to decide if it is worth the time and money to protect it.

Depending on what segment of the games industry you are making a game for, the need to protect IP can vary greatly. For instance, developing a Flash-based web game requires almost no protection and more than likely will be cloned or stolen. On the

other hand, developing IP for the casino market requires the game to carry a patent more often than not.

It is also important to remember that protection in the US does not necessarily afford any protection internationally. International IP protection is significantly more difficult to obtain and much more costly. You will need to evaluate where you plan on taking your product and if it makes sense to protect your IP overseas.

In this article, the methods for protecting the following types of IP will be discussed:

- Trademarks
- Copyrights
- Patents
- Non-Disclosure Agreements (Trade Secrets)
- Licensing Agreements
- Ephemeral Protections (Being First to Market & Branding)

Trademarks

A Trademark is used to protect words, names, symbols, sounds, or colors that distinguish goods and services from those manufactured or sold by others, and to indicate the source of the goods. Trademarks, unlike patents, can be renewed forever as long as they are being used in commerce. (http://www.uspto.gov/main/glossary/index.html)

The 2 most common symbols that are used to identify a trademark to the public are ™ or ®. The ™ can be used any time someone wants to alert the public to a claim, regardless of whether or not an application has been filed at the USPTO (The United States Patent and Trademark Office). The ® for "registered trademark" can only be used once the USPTO actually issues the registration for that trademark. Once a registration is received, the USPTO requires maintenance fees every 10 years along with proof that the mark is still in use. Any major changes to the mark will require a new registration to be filed.

In the games industry, a Trademark is generally used to identify a specific Developer, Publisher, Middleware provider or Game. The Trademark is generally the most unique and memorable identifier for a product outside of the game itself.

Trademarks can also be filed for other elements within the game, such as a character spokesperson, (see: Super Mario, Mickey Mouse) or a distinct element or logo which is identifiable to a particular developer or game.

A Trademark is one of the main tools to start establishing brand identity for a developer or a game. Companies who have spent time developing a brand are usually more prone to protect it legally. Therefore, you always want to ensure that the name or trademark you are looking to file is not already in use. The USPTO offers a search tool in which you can check the database of registered Trademarks to see if the mark is already in use. The database for searching can be found here: (http://tess2.uspto.gov/bin/gate.exe?f=tess&state=ombj7.1.1)

The process for filing a Trademark can be found here (http://www.uspto.gov/web/trademarks/workflow/start.htm)

Copyrights

Copyright – symbolized "©" – is a legal concept, enacted by most governments, giving the creator of an original work exclusive rights to it, usually for a limited time. Generally, it is "the right to copy", but also gives the copyright holder the right to be credited for the work, to determine who may adapt the work to other forms, who may perform the work, who may financially benefit from it, and other, related rights. It is an intellectual property form (unlike the patent, the trademark, and the trade secret) applicable to any expressible form of an idea or information that is substantive and discrete.

(http://en.wikipedia.org/wiki/Copyright)

There are also stringent laws around Copyrights. The **Digital Millennium Copyright Act** (**DMCA**) is a United States copyright law which criminalizes production and dissemination of technology, devices, or services that are used to circumvent measures that control access to copyrighted works (commonly known as Digital Rights Management or DRM) and criminalizes the act of circumventing an access control - even when there is no infringement of copyright itself. It also heightens the penalties for copyright infringement on the Internet (http://en.wikipedia.org/wiki/DMCA). Since many of the games that are developed in the casual games space are disseminated through the internet, there is already protection afforded through copyright law and the DMCA. Copyright terms vary, however the average length of a copyright is the life of the author plus 50 to 70 years

In addition, it is important to understand the unique issues regarding the conveyance of copyrights - specifically, for employees or contractors;

"In order to sell a game, the developer has to own it. That means that the ownership of each and every element of the game has to be conveyed to the developer. The content of the game is governed by copyright law. And the ownership of the copyright vests in the person who created it at the time it is conveyed into a tangible form. Moreover, ownership of this type of Intellectual Property cannot be accomplished by a verbal agreement. It must be in writing. The only exception to this rule is for full time employees who are being paid to create content.

Work done by employees is presumed to be "work for hire" that is owned by the employer. Contributors and independent contractors retain all ownership rights to their work unless it is conveyed by a written agreement, sometimes referred to as a "work for hire" agreement, which effectively transfers ownership of the work to someone else; in our case, to the developer. Of course, to be safe everyone who contributes, including the owner of the company and all of the employees, should sign a written agreement conveying their ownership rights to the company."

- Excerpt from the "GameDevKit' © (*www.gamedevkit.com*) Thomas Buscaglia, The Game Attorney

Patents

A Patent usually refers to a right granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof. The additional qualification *utility patents* is used in countries such as the United States to distinguish them from other types of patents (http://en.wikipedia.org/wiki/Patent). A utility patent must be filed within 1 year of disclosure of the idea.

When it comes to IP protection that is available and issued by a government body, this is usually the most comprehensive amount of protection that you can get. The idea behind getting a patent for a game allows you to protect an original work. However, it should be noted that patent protection in the US does not necessarily cross over to international territories – so international patents may need to be filed in each country you want to have protection.

Keep in mind, however, that there are significant costs associated with getting a patent. Provisional patents are much less expensive than utility patents, but will still cost a

certain amount of legal time. A comprehensive prior arts search (to search for existing patents or public ideas) can cost a significant amount of money based on the depth and quality of the search. There are also filing fees for patents, which are somewhat modest, but the bulk of the expense for a patent comes from the cost of attorneys and the process for getting a patent approved. A developer's legal counsel may end up hashing out details with claims examiners at the patent office for months or more likely, years, which can equate to huge legal bills.

The "hidden" cost to patents is that even once a patent is received on an invention, there are legal costs associated with protecting the patent and the costs of potentially suing others who infringe on a patent. After a significant investment in the patent process, it is not uncommon to see companies invest the time and money necessary to protect their patent.

The entire process can take over 3 years before you see a patent get issued (in some cases if the inventor is over 65 years of age you can get "special consideration" to get a patent reviewed in 18 months). The life of a patent is 20 years from the date that the invention was submitted to the USPTO.

On the positive side, patents can also be a developer's best asset. Some developers and inventors have built entire fortunes on their patents. Earnest Moody, for example, has filed over 50 patents for "methods" of how to play various types of casino style games (mostly poker related). Moody has built a small empire licensing his patents to IGT and other major developers of video poker and slot products. Patents themselves can be purchased, sold, assigned and licensed as part of any business transaction. Some manufacturers of slot products will only license patented ideas.

It should also be noted that there is significant debate over the value of game patents, and whether or not they have the potential to stifle the growth of the game industry. However, they are a part of the IP landscape and no matter what you think of them, a smart developer will take them into account in his or her IP strategy.

Non Disclosure Agreements

In a world where there is no such thing as a "shared secret", 2 companies can protect their intellectual property or "trade secret" by building IP protection into their agreements. A legally binding contract between two companies that is legally enforceable can (in some cases) provide more IP protection than patents or copyrights.

Non-Disclosure Agreements (NDAs), by nature, stipulate some generalities in what materials companies will keep confidential. Many of these materials, as they are spelled out in the NDA, pertain to the intellectual property that the parties will be sharing. The

NDA will specifically spell out what information is confidential, how confidential information should be treated, and how the parties are to deal with confidential information in the event that business between the parties is terminated. No matter what kind of NDA is signed, there should also be some Term as to how long information should be kept confidential.

It is important to note that an NDA does not necessarily avoid competition on ideas. In fact, some larger companies and publishers may not sign an NDA if it contains a non-compete clause which would prevent them from working on a similar idea in the near future. This is very common with publishers who work with multiple developers.

Licensing Agreements

As for any binding Agreement, the licensing agreement is where 2 parties can now dictate terms as to how intellectual property will be treated. Intellectual property rights are infinitely divisible. In an extreme example, someone could license someone a game for use on a Tuesday, only in July, only in the State of Texas, only for Linux, and only when the sun is shining. This allows the creator or licensor of the IP to dictate the terms in how the IP is being used.

This is very helpful to remember when discussing platforms for games and how derivative works will be treated. For instance, if you are engaging in a licensing deal for IP for use as a downloadable game with a publisher, it doesn't make sense to extend them the rights for mobile phones if the publisher isn't going to exploit those rights. A good rule of thumb is to not "lock up" rights when it comes to a licensing agreement, and to be sure that any party that is trying to license your IP has the necessary experience and business relationships within the media or platforms they seek to obtain rights to.

It should be noted that licensing agreements need to be treated carefully. Several agreements surrounding similar IP can start to overlap and some rights grants confusion may occur. Developers should use competent IP attorneys when drafting and reviewing agreements to ensure that terms are adequately spelled out. You may be put into a position where the focus of the agreement is on the economics and timelines for development, but some of the key deal points when it comes to an agreement about IP are the IP rights grants and how the IP will be used. A competent IP attorney should be able to tell you if the agreement is a "bad deal" or grants more rights than are necessary in order to make the deal functional.

Ephemeral Protections

The final methods of protecting IP aren't legal protection, but actually a group of methods that you can use to "stake a claim" when it comes to your IP. The first method is being first to market with an original IP. If you can release a product quickly you can possibly become a 'genre-definer,' setting the stage that your IP is the primary IP in that genre and that everyone else is a copycat or cloner.

Being on the bleeding edge and being a pioneer in the marketplace comes with its share of risks, but the payoff can be big if you are attempting to position your IP as a dominant force in the market place. This is also referred to sometimes as developing in a vacuum. When nobody else is developing a game quite like the IP that you are developing, you have a chance to establish yourself as a market leader just by being first, and in turn create great brand value for your studio. Be wary as sometimes the developer who is second can overtake who was first (see Facebook / MySpace).

This leads to the second model of non-legal protection, which is branding. Effective branding can also protect from imitators by establishing consumer confidence with your brand. Google may not have invented the search engine, but through their effective branding and becoming a modern colloquialism, they have dominated the marketplace and made it hard for imitators to absorb market share.

3. UTILIZATION OF IP

Once you have created some IP and have taken the necessary steps to protect that IP, you now have some choices as to what to do with their IP.

Sell the IP

Intellectual property, once again, is an asset to any company or developer. As an asset of a company, it starts to appreciate in value. Some businesses are built on the sole concept of holding a portfolio of quality IP (see Hasbro).

This IP can be sold by itself or as part of a merger or acquisition. Either way, as part of the transaction, the IP should be assigned a value as it has now become a tangible asset of the developer.

You should NEVER treat IP as valueless.

License the IP

If you are not ready to sell your IP, you may have the option of licensing your IP to a variety of channels. Depending on the IP, you may be in a position to license a game, a game concept, a game engine, the brand of a game, or any of the other IP that was created as part of the development process. For example, even game audio as a Ring Tone can be licensed.

Licensing, versus outright sale, is also a good way to create recurring long-term revenue off of a single IP. Since the rights are infinitely divisible, you can license the same IP over multiple channels in multiple territories for whatever deal terms you can negotiate. Suddenly, the value of the IP increases as the same content can be licensed over and over.

Some common licensing options for IP include:

- As a Game
  - Online / Downloads / Mobile / Coin-Op / Console / Handheld
- As a Trademark / Brand
  - Apparel / Candy / << Insert Anything you can Logo >>
- As a Gaming Device
  - Slot Machines / Table Games
- As an Engine for Derivative Works
  - One game creates many
- Overseas
  - Foreign markets – "Its new to them"

Licensing options are endless where sales are final, however that doesn't mean that a sale of IP will yield less revenue than a license. The most important thing to consider is the best interest of both parties, and how each will derive value from the transaction.

Technology Issues

Ken Tabor, Lead Programmer, The Method

Graphics and Game Engines

When a game development group takes the time to break down a game's design into its various components, milestones, and tasks to create a proper schedule, it will often show just how hard games are to make. It rarely matters what type of game it is because at the end of the day, developing software is a very unpredictable matter with a very unpredictable schedule.

Choosing an engine is one decision that can help mitigate a variable schedule and bring in the end date for an over-tasked team. Taking on a library that has proven its worth by successfully

creating games similar to one's own helps reduce unknowns, and good tools give programmers a head-start on building the needed technology. A good engine allows designers and artists to create highly usable content as quickly and easily as possible. Furthermore, if the tools are robust and offer sufficient features, the game could be built with less people than otherwise needed – helpful if the project budget or acquiring talent are challenges.

In this section we take a look at various game engines to see what features they offer the typical casual game. Development teams may be inclined to use one of these if there is a reasonable overlap in features offered and requirements demanded. Each section provides a chart to educate you how each engine is best used or suited for a given role to help you make informed decisions.

Engines Breakdown Table

Name	2D Graphics	3D Graphics	Animation	Particles	Sound	Physics	Networking	Target Platform	Programming Language
Blade 3D	X	X	X	X	X	X		XP, Vista, 360	C++. C#
Blitz 3D	X	X			X			Win	C, C++, C#, Basic
C4 Engine	X	X	X	X	X	X	X	Win, Mac	C++
Director/ Flash	X		X		X		X	Win, Mac, Web	Actionscript
Facebook SDK	X		X		X		X	Web	C++, Java, Python, PHP, Ruby
Game Editor	X		X		X	X		Win, Win Mobile, Unix	C-like Custom
Game Maker	X		X		X		X	Win	GML (Custom), PHP
Panda 3D	X	X	X	X	X	X	X	Win, Linux	C++
Playground	X	X	X	X	X			Win, Mac, Web	C++
SDL	X	X			X			Win, Mac, Unix	C, C++, many others
Torque	X	X	X	X	X	X	X	Win, Mac, Unix, Wii, 360	C++
Unity	X	X	X			X	X	MacX, XP, Vista	n/a

Name	Scripting	Pricing	Target Users	URL
Blade 3D	C#	$15-$99/mo.	Prog, Art, Des	http://www.blade3d.com/
Blitz 3D	No	$100	Prog	http://www.blitzbasic.com/
C4 Engine	Visual, Custom	$350	Prog, Des	http://www.terathon.com/c4engine
Director/ Flash	n/a	$999	Des, Art, Prog	http://www.adobe.com/products/di
Facebook SDK	PHP, CSS, Custom	Free	Prog	http://developers.facebook.com/
Game Editor	C-like Custom	$95	Des, Art	http://game-editor.com/
Game Maker	CML (Custom), PHP	Free/$20	Des	http://www.yoyogames.com/make
Panda 3D	Python	Free	Prog	http://panda3d.org/
Playground	Lue	Free	Prog, Art	https://developer.playfirst.com/
SDL	No	Open Source	Prog	http://www.libsdl.org
Torque	Custom	$100 - $1495	Prog, Des	http://www.garagegames.com/

Data Compression Libraries

Achieving the smallest delivery size as possible for a game's installation package will increase completed downloads to potential customers.

Fundamentally the development process should include a way to automatically compress data files as part of the conversion pipeline from relatively large source files into efficient run-time formats. Such data files would clearly include artwork, uncompressed audio, and any general data file.

On the run-time side, the game's file input routines need to process the compressed data files through the decompression SDK APIs, producing the flattened version of the exported data that the game expects. Because the uncompressed data is stored in RAM, the game must create routines that can handle effectively memory-mapped files (as opposed to disc resident ones.) There is a plethora of information easily found on the Internet regarding such strategies.

The following compression libraries can serve as examples for you to evaluate as you decide on the best solution for your needs.

Name	URL
Zlib	http://www.zlib.net/
LZMA SDK "Z Zip"	http://www.7-zip.org/
RAR	http://www.rarlab.com/

DirectX SDK vs. O/S Versions

Choosing to support Microsoft Windows is an easy decision for most developers – the most obvious reason being the large install base. That said, DirectX, the Microsoft game SDK, has many versions and supporting all of them is not the easiest challenge, and may not be the best use of limited resources. Many developers decide to link against an older version of the DirectX SDK in order to maximize the largest potential selection of players because so many people have PCs with older operating versions of XP, and even Windows 2000 systems.

This brief overview shows a list of what versions of the DirectX SDK shipped on each particular flavor of Microsoft Windows. Decide which version of that O/S that you want to support and find the SDK version on the Microsoft MSDN website to build your application against.

Find this DirectX SDK Version	To Support this O/S Version
DirectX 6.1	Windows 98 SE
DirectX 7.0	Windows 2000
DirectX 7.1	Windows Me
DirectX 8.0	Windows 2000, last for Windows 95
DirectX 8.1	Last for Win
DirectX 9	Windows XP
DirectX 9.0c	Windows XP SP2
DirectX 10.0	Windows Vista
DirectX 10.1	Windows Vista SP1

Reference: http://en.wikipedia.org/wiki/DirectX

Try and Buy Downloadable Games

Section Editor: Dan Prigg, Director of Programming and Publishing, RealGames

What Is a Try and Buy Downloadable Game?

By Andrew Lum, CEO, Fugazo

Try and Buy Downloadable Games have been the meat and potatoes of the North American casual game market for a number of years. Developers create a stand-alone executable file in native Windows or Mac code. The file contains a complete (typically single-player) casual game. Users download the file from the internet and are free to sample the game and decide if they want to purchase it. Typically this means that they will be able to play the game for 60 minutes. Digital Rights Management software ensures that users are forced to either abandon or purchase the game (usually for $20) once the trial has expired. This type of game is widely distributed by internet portals; many developers also offer their games for download from their own site.

This has been the dominant distribution channel for casual games for a number of years. Some hardcore games have also begun to focus on digital downloads for distribution through channels like Steam and Greenhouse. This section does not deal with those hardcore games.

Inoffensive Themes

In the console and core PC space it's not uncommon to find games centered on violent themes such as zombies (Resident Evil) or gang crime (Grand Theft Auto). In contrast, downloadable games often involve themes of exploration (Jewel Quest), entrepreneurship (Diner Dash), or intrigue (Mystery Case Files). This is not to say that all console games have offensive material but to point out that downloadable games rarely if ever have offensive themes.

Simple Controls

The large majority of people who play downloadable games are not familiar with using the keys W,A,S,D to control movement. Most downloadable games are played using only the mouse and many games only use the left mouse button. In 2007, all of the Top 10 Downloadable games used mouse controls.

Low System Requirements

It's hard to believe that anyone is still running Windows 98 or Windows 2000, but many downloadable games are still supporting these operating systems. Most downloadable games are strictly 2D affairs that only require DirectX 7. In fact, the PopCap Framework still runs perfectly using Direct X7. Almost all downloadable games also will run on PCs with less than 256 MB of RAM.

This means that virtually 100% of all PC owners can play downloadable games on their computer. In contrast, BioShock, a recently released core PC game, requires at least 1 GB of system RAM.

What are the common genres in downloadable games?

The Top 3 most common genres are Match 3, Time Management, and Hidden Object. In 2001 PopCap created Bejeweled the first Hit downloadable game and also started the genre we now as Match 3. In 2004 Diner Dash (developed by GameLab, published by Playfirst) became the first Hit Time Management game though Betty's Beer Bar came out before it. Hidden Object Games are relatively new to the Downloadable Scene. Mystery Case Files created by Big Fish Games was not released until 2005. Hidden Object Games are currently the most popular genre.

How does one buy a downloadable game?

Downloadable games are available on a large number of portals. Real Arcade, Big Fish Games, Yahoo!, and MSN are some of the largest portals where downloadable games are purchased. Typically, downloadable games employ a Try Before you Buy Model. In most cases the game is fully playable for a 60 minute trial. Upon the trial expiration the player must buy the game if they want to continue playing. The user pays the portal directly (and most of them have accounts and clubs set up for repeat payments) and the portal pays a royalty to the developer and/or publisher.

What is the average budget for a downloadable game?

In 2004 it would be safe to answer that most Downloadable games were developed for under $100,000. As the downloadable game industry matures the cost of development has gone up. The average development cost for most games is well over $100,000. Larger publishers are creating downloadable games with record budgets. In a 2007 speech at Casual Connect, Dave Roberts, Popcap's CEO, stated that Peggle had a development budget in excess of $1,000,000.

How big are downloadable games?

In 2004, most downloadable games were under 10 MB and very few games went over 25 MB. The size of games has gone up for two reasons. First, more households are adopting high speed internet allowing developers to build bigger games. Secondly, as production values go up for downloadable games file size have naturally increased to support higher resolution games and a larger number of assets. Big Fish Games' latest hit, Mystery Case Files: Madame Fate is actually over 100 MB.

How big is the average development team?

Similar to file size the average downloadable games team has increased in number over the past few years. If you look at Zuma released in December 2003, you'll see the team was extremely small: 1 Game Designer, 1 Level Designer, 1 Programmer, and 1 artist. So in 2003, PopCap was able to deliver a #1 Downloadable Game with a team of 4. In contrast, Go-Go Gourmet was released by Oberon Media in 2008 with: 2 Game Designers, 1 Programmer, 4 Artists, and 1 Level Designer. Their team was 8 employees.

How much do downloadable games cost?

Traditionally, the cost to purchase a Downloadable Game was $20. However, the average price of a downloadable game has dropped substantially as many Portals are offering discount prices through Game Clubs and Monthly Subscriptions. Players can pay $9.99 a month to join Real Arcade's Game Pass program where they get 1 free game a month and pay $9.99 for all other games. On Big Fish Games, players can join the Game Club where they pay only $6.99 per game! As a result the average price point for a Downloadable Game is now somewhere between $10 and $15.

Advertising Revenue

As the downloadable games market matures, new ways of monetizing the consumer have emerged. In-game ads placed between levels allow the player to play for money than 60 minutes while the publisher and developer can still generate revenue. In-game ads are typically 15 or 30 second streaming commercials that play every 12-15 minutes between levels. Some of the first adopters of in-game ads include Super Collapse 3 and Cake Mania.

"According to the results of a survey of 1,500 gamers by RealNetworks, nearly 90% said they would prefer to watch video ads before and during natural breaks in casual games rather than pay to play. In addition, 34% said they would take further action and click on the in-game ads to learn more about the advertised product or service." – HollywoodReporter.com

Still very few Downloadable games support in-game ads. Of the 500+ games on Real Arcade about 40 of them support in-game ads. Some sites such as NeoEdge Network's MostFun.com offer unlimited play on all their games through in-game ads. However, time will tell how successful in-game ads will be in generated revenue for developers and publishers.

The Future of downloadable games

Despite increasing development costs and a decreasing average price point, downloadable games are still a viable and growing business. The Casual Games Market Report 2007 estimates that downloadable games have a 20% year over year growth. It's up to us as publishers and developers to make this estimate a reality.

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Art History of Downloadable Games

By Andrew Lum, CEO, Fugazo

Since 2001 there has been well over one thousand downloadable titles released. This article singles out a few of the downloadable games from 2001-2007 that have pushed the industry forward.

2001

Bejeweled
Developer: PopCap

URL: <fill in URL>

The Bejeweled Series, developed by PopCap, is still and will always likely remain the #1 Best Selling Casual Game Franchise. Bejeweled and Bejeweled 2 have collectively sold more than 10 million units across numerous platforms, and have been downloaded more than 300 million times in the past six years. The simple gameplay of swapping gems to match 3 similarly colored objects has evolved into a whole genre of downloadable games. Additionally, thanks to some advice from Astraware (a Handheld Game Publisher), PopCap priced Bejeweled at $20 setting the price point for downloadable games.

Collapse
Developer: GameHouse

URL: <fill in URL>

The premise behind Collapse, developed by GameHouse, is deceptively simple. Players click on adjacent clusters of 3 or more identically colored blocks, removing blocks and causing the stack to collapse. Every few seconds, a new row of blocks slides into view from the bottom and pushes the blocks upwards. When the board fills to the top the game is over. Far from being mindless, strategic clicking allows players to clear more blocks from the screen simultaneously. Collapse has spawned numerous sequels and been released on numerous platforms including PC, Gameboy Advance, Mobile, PSP, and the Nintendo DS.

2002

Scrabble
Developer: Funkitron
URL: <fill in URL>

When Scrabble the downloadable game was released in 2002 it was not really innovative. Official licensed versions of Scrabble date back to 1989. However, with its solid gameplay and strong production values Scrabble sold very well and paved the way for many other big brands to join the downloadable game space. Today, there are popular downloadable games based around Yahtzee, Monopoly, Jeopardy, and more.

2003

Zuma
Developer: PopCap

URL: <fill in URL>

Zuma, developed by PopCap, was an intrinsically simple and addicting game. The player controls a frog that shoots colored balls at a chain of moving balls. Match 3 or more colored balls in the chain to remove them from the screen. If the chain of moving balls reaches the skull then the player loses a life. Zuma not only inspired a multitude of clones but a whole sub-genre to 'Match 3' known as 'Bubble Popper'. Zuma went on to become the #1 Selling Game for Real Arcade in 2004.

Tradewinds
Developer: Sandlot Games

URL: <fill in URL>

Tradewinds, developed by Sandlot Games, was one of the first downloadable strategy games. In Tradewinds, you assumed the role of a merchant or pirate and collected money by selling goods at the local market or by battling other fleets of ships. Unlike most casual games of 2003 Tradewinds had a persistent world where you could continue to improve your fleet of ships and increase your wealth. The visuals for Tradewinds were also beautifully illustrated. The Tradewinds Franchise has gone on to produce several sequels and Sandlot Games has announced that a Casual MMO is in the works.

2004

Jewel Quest
Developer: iWin

URL: <fill in URL>

Jewel Quest, developed by iWin marks a turning point in the casual games industry. It was one of the first games to successfully innovate on an existing casual game dynamic. Jewel Quest's basic formula of matching objects mirrored Bejeweled but the key difference was in the objective of the game. By matching 3 or more objects the spaces behind them would turn gold. Turning all of the spaces on the board gold was the objective of each level. This added a 2nd level of strategy that had not yet been seen in a match 3 game. Jewel Quest has gone on to ship more than 4 million units across a multitude of platforms.

Fish Tycoon
Developer: Last Day of Work

URL: <fill in URL>

Fish Tycoon was developer Last Day of Work's first PC title and was arguably the first successful simulation game for the downloadable space. In Fish Tycoon the player runs their own virtual fish tank. The object of the game is to keep your fish store financially profitable by raising, breeding, and selling fish. With over 400 unique fish and its real time clock gameplay Fish Tycoon set the stage for the developer's later titles such as the Virtual Villager series.

2005

Diner Dash
Developer: GameLab

URL: <fill in URL>

Diner Dash, developed by GameLab, was actually released in Dec 2004, but was introduced to most gamers in 2005. In Diner Dash the player controls Flo a former white collar worker turn into restaurant entrepreneur and waitress. The gameplay was about tackling all the perils of a restaurant by oneself. As Flo you would seat the customers, take orders, deliver food, deliver checks, and bus the tables. There was no wrong moves in Diner Dash instead the strategy was in deciding what tasks to do first. Diner Dash set new ground in downloadable games and create the genre now known as 'Time Management'. The Diner Dash games series has been downloaded over 200 million times on personal computers.

Luxor
Developer: MumboJumbo

URL: <fill in URL>

After a multitude of Zuma clones, Luxor came out and breathed new life into the Marble Popper sub-genre. In Zuma, the ball shooting frog is set at a fixed position. The player controls where to shoot the ball but does not control where the ball comes from. In Luxor the player controls a paddle that can move freely across the bottom of the screen. The player then shoots balls upward at the chain of moving balls. With the new freedom of movement Luxor also added the catching of falling powerups similar to Breakout games. Luxor has been downloaded over 40 Million Times.

2006

Mystery Case Files: Huntsville
Developer: Big Fish Games

URL: <fill in URL>

The downloadable game space would be very different today if not for Mystery Case Files. In Mystery Case Files the player had to find a variety of objects in a cluttered environment in order to solve a murder. The title sold fantastically well and created the genre Hidden Object. Hidden Object games are the most popular genre on nearly every downloadable game portal currently. Mystery Case Files has had 3 sequels. The first three titles in the series had amassed over 1.2 million sales.

Cake Mania
Developer: Sandlot Games

URL: <fill in URL>

While Cake Mania was not among the first time management games, Cake Mania offered one two key differences to the time management games of 2006. First, rather than simply chaining together actions, in Cake Mania the player had to assemble of cakes by recognizing the unique orders of the customers. Secondly, Cake Mania introduced a mandatory shopping element to the game. Players would save up their money between rounds and then choose what equipment to upgrade in their bakery. These unique gameplay elements along with a strong visual style made Cake Mania the Top Selling Game on Real Arcade in 2006.

2007
Build-a-lot
Developer: HipSoft

URL: <fill in URL>

In a sea of Hidden Object and Time Management Games, Hipsoft released Build-a-lot. Build-a-lot took the basics rules of real estate and rental investment and incorporated them into a game that at a glance might be considered Time Management. However, in truth Build-a-lot was inspired by Warcraft II. The team at Hipsoft asked the question, “What if there was an RTS without the fighting?" According to Game-Sales-Charts, Build-a-lot is the #6 best selling downloadable game of 2007 despite being released halfway through 2007.

Conclusion

You’ll notice that for 2007 I only listed 1 downloadable game that pushed the industry forward. While there have been many fun and successful downloadable games developed in 2007 the large majority of them were sequels or iterative designs on established genres.

I make note of this in a plea for developers to take more risks. Here’s to hoping that in 2008 we see several new genres emerge.

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The Audience and Market for Downloadable Games

By Andrew Lum, CEO, Fugazo

The Audience of Downloadable Games

In any consumer business it's important to know your target audience. In the case of Downloadable Games it's important to identify not only what the target audience wants but also what they don't want. This article will familiarize you with some of the attributes that Downloadable Game consumers share.

The non-gamer

The large majority of the downloadable game audience falls into the category of non-gamer. There are 3 distinctive characteristics that separate the gamer from the non gamer.

1. Does not play 'core' (Playstation, Nintendo, Xbox) games
2. Is not familiar with movement controls using W,A,S,D
3. Does not consider themselves to be a gamer

Essentially, all assumptions one would make about a gamer are things that the non-gamer would not appreciate. Violent themes, complex controls, and volumetric hair are definitely in appropriate for non-gamers.

Who Pays and Who Plays?

When you look at the Downloadable Games audience by gender it's fairly even. The Casual Games Market Report 2007 states that 51% of Casual Game Consumers are Female and 49% of Casual Games Consumers are Male. However, the breakdown of actual paying customers is significantly different. 74% of Paying Casual Games Customers are Female as opposed to 26% which are male. Similar trends can be seen with age. The Casual Games Market Report 2007 finds that 62% of Casual Game Consumers are over 35. However, 72% of Paying Casual Game Customers are over 35. Ultimately, while people of all ages and genders play casual games most purchases come from females over the age of 35.

The Market for Downloadable Games

A few years ago most Downloadable Game Portals would release a few new games every week. In 2008, the large majority of Portals release a game a day. That's 365 games a year. 366 games in 2008 as this is a leap year. You would think that with this many games your chances of getting your game released would be very high. However, many Downloadable Games submitted to Portals are rejected. In an average month iWin rejects about 40-50% of the games submitted to them.

For those games that do get accepted, there is still a very significant amount of money to be made in the category. According to the Casual Games Associations 2006 Market report,

Clone$ and the Market

Clones are unavoidable in any entertainment medium. Ocean's Eleven was a remake. Dreamwork's computer animated movie Antz and Pixar's computer animated movie A Bug's Life both aired in 1998. It's inevitable that most successful games will end up being cloned.

In 2003 PopCap released Zuma, the first Downloadable Marble Popper Game. Currently, on Big Fish Games there are 25 Marble Popper games that share the basic gameplay mechanic of Zuma.

In late 2004 Playfirst released Diner Dash. There are currently 65 Time Management games on Big Fish Games that share the basic gameplay mechanics of Diner Dash.

In November 2005, Big Fish Games released Mystery Case Files the first Downloadable Hidden Object Game. There are currently 58 Hidden Object Games available on Big Fish Games. While hidden object games are definitely the most popular genre right now this may change in the near future.

Thankfully, while clones exist, genre innovative games tend to stick around longer. In 2008 on Big Fish Games, Zuma is still #5 for Marble Popper Games. Diner Dash Hometown Hero, the latest in the franchise is #8 for Time Management Games and Mystery Case Files: Madame Fate is #7 for Hidden Object Games.

Business Models

Prior to the dot-com bubble of 2000, casual games were primarily ad-sponsored. "Try and Buy" became a necessity as advertising revenue dried up. Under this model, consumers may download and play a trial version of a game. Trials are limited in some way, most commonly by time, but trials may also be limited by features, by number of plays allowed, or by some other mechanism.

Spectacular hits like PopCap's Bejeweled proved that "Try and Buy" was a user-friendly and well received method to sell casual games. To date, "Try and Buy" continues to be very successful, generating remarkable revenues for hit titles.

"Try and Buy" requires high volume to see desired profits. The conversion rates for these games are low; 1% is considered good. "Try and Buy" games cost between $5 to $30 dollars, with $19.99 being the most typical price point. Recently, publishers have focused on delivering higher quality titles, instead of higher quantity, to increase the conversion rates. Regardless, the industry still expects low conversion rates. Many publishers are also monetizing the the 95-99% that don't convert by using advertising sponsored sessions, portal subscriptions, virtual currency, and micro-transactions.

Try and Buy

The vast majority of revenue from downloadable games comes from standard try-and-buy transactions.

The player downloads the game via a web browser to the PC. Download footprints vary wildly from 5MB to 120MB. Once the player installs the game, Digital Rights Management (DRM) software handles the game's trial period.

The DRM software is typically responsible for handling the "up-sell" moment. The up-sell is when the game encourages the player to purchase the full version in order to continue playing. When the player wants to purchase the game, the DRM accepts the user's payment information and handing the transaction off to a back-end payment processing system. (DRM is also responsible for enforcing trial criteria.)

In some variants of this model, the player may continue playing the feature limited version indefinitely, in others the player must sit through increasingly annoying "nag screens" encouraging the user to upsell. Other games opt, instead, to maintain full functionality after the trial period by embedding advertising.

Providing the DRM is generally the responsibility of the retailer or the distributor; the

publisher generally hands off an unlocked version of the game to be wrapped along with marketing collateral to help in building the up-sell screen
Under this model, revenue from game sales by the retailer are generally shared with partners "upstream" with pre-determined royalty rates or revenue shares. A typical developer revenue share is anything from 20%-50%.

Free Web Trial

A common variant on the "try and buy" model is to offer a free web version of the game which can be played within a web browser. Web games can generally by played over and over again, however they are typically very limited compared to the "deluxe" versions, with fewer features, less content, lower quality sounds & graphics, etc.

A good web game is designed to encourage the user to download the deluxe version. Many users (especially those with slow dial-up modems) will not download a game without first trying the web-game version, though others will only ever play the web games and will never download deluxe versions for a variety of reasons. Some users are simply not allowed to download & install software on their computer (e.g., office workers). Others have been told "never download software on the Internet" and are fearful. Still others simply don't want to "clutter up" their computers with lots of random software.

In addition being an important source of sales, ad revenue from downloadable game web demos is beginning to become a significant revenue stream for a number of portals. Because most of these games are built to simply to drive traffic to the full downloadable game, they don't monetize as well as ad-focused games of similar quality. On the other hand, because the casual game development community has been focused on building downloadable, the demo versions of these games are the sole vehicle for consumers that want free access to these products and can drive many millions of advertising impressions.

Advertising Sponsored Downloads

Companies may use interstitial advertising during free trial periods in downloadable titles. Typically, the advertising is displayed around the gameplay in between levels so it doesn't disrupt gameplay. Advertising is targeted to the game player demographics.

While development agreements vary between publishers, developers can expect royalties from advertising revenue. Tightly integrated advertising will generate a higher revenue share. Sometimes advertising is interwoven into the gameplay itself, with characters wearing brand related gear. This approach can backfire, however, if the product placement isn't elegantly integrated, in exchange for an up-front payment from the advertiser. For instance, planets emblazoned with the Pepsi logo will continually distract a player in a space shooter game. This is a poor experience for a player.

Publishers can also use ads to extend the game's trial period. This monetizes players who are not ready to purchase the game, and provides another up-sell after further play.

Micro-transactions

Micro-transaction enables players to buy additional game content or customization features for a very low price. This model has flourished for years in the Asian and European markets, mainly with free MMOs. Now, players can perform micro-transactions for downloadable titles in the US.

In PlayFirst's *Diner Dash 4: Hometown Hero*, the player can purchase new level packs, characters and diner themes. These purchases generate new depth and player engagement without requiring extensive new features or gameplay. Over 40% of the revenue generated from Diner Dash 4 on PlayFirst.com is from items selling for $5.99 or less

Subscriptions

Distributors typically report that only a small percentage of their customers buy more than one game under a single transaction with the "try and buy" model. Subscriptions are one way to try and earn more revenue per consumer by creating an ongoing revenue stream.

There are several types of subscription models in wide-spread use:

"All you can eat"

The consumer pays a fixed amount per month in return for unlimited play of all games in the program. The user must maintain the subscription in order to continue playing games; when the subscription ends the player's access to the games also ends. Models for sharing revenue with developers/publishers whose titles are offered within subscriptions varies between vendors, subscription type, and platform. Common ones are based on game starts/plays (i.e. If a player played nine games of game A, and one of game B, ninety-percent (90%) of the share allocated to developers would go to game A's developer); or game time (i.e. nine hours logged playing Game A vs. one-hour playing Game B would result in the same split as the previous example).

"Book of the month"

The consumer pays a fixed amount each month in return for getting one (or more) games free. Additional games can generally be purchased at a discount. VIP membership. Typically consumers pay around $10/month for subscriptions of this type. Developers are paid royalties based on the actual purchase price of each unit sold.

Pay-for-play / Ad Sponsored hybrid

WildTangent announced a new business model for games sold through their 'WildTangent Games Network' (WGN). This new model is an online version of the classic arcade where you insert coins into the machine for each game play. The WildCoins is a 'pay for play' model that is adapted to the existing try and buy model. End users get their first two game sessions for free (the trial period), then they have a choice to spend $20 and convert to a full purchase, or spend about $.25 for the next game play, and the next, and the next. Another interesting component of this new business model is that advertisers can buy the WildCoins and sponsor a game session that is then free for the players.

The combination of free play, sponsored play, $.25 cent play and full purchase creates a payment structure that has yielded much higher revenues per game. WildTangent has seen significant growth through this model. They are capturing new value through payment flexibility. This approach requires a new DRM to support session based rights. Numbers here would be good.

Pay Per Minute

DoubleTrump has recently started offering a pay-per-minute service. Consumers enjoy a 60 minute free trial then pay $0.01 for each additional minute they play a downloadable game up to a maximum of $20.00. Once the consumer has reached the $20 threshold, they own the game just as though they had purchased it outright.

This monetization method has not yet gained wide adoption due to developers' concerns about lower monetization levels, but DoubleTrump asserts that they have seen significantly better revenues from this model on their test site than from the same games offered with traditional try-and-buy terms.

Design Principles

By Mike Wabschall, <fill in title>, Foundation 9 Entertainment

Downloadable titles adhere to the common design principles for all casual games. The games should be easy to learn, provide immediate rewards and communicate incentives clearly.

Basic design principles for casual games:

- Provide simple, meaningful actions for the player
- Reward the player frequently
- Provide rules that are easy to learn
- Guide the player with a clear and consistent user interface
- Let depth and complexity emerge from the player's basic actions rather than requiring the player to master a large and complex set of actions
- Increase game difficulty to parallel the player's skill development
- Design for your target audience

These design principles apply to almost all casual games. To design effectively for the downloadable space, you must pay attention to a variety of other design issues detailed below.

Key Design Elements of Downloadable Games

It is one thing to entertain the player enough to keep him or her interested in playing the free version. It is much harder to get the player so involved in the game that they are willing to pay to continue or upgrade to the "premium version".

Even then the job is not done. The premium version must deliver a good value to the player. To accomplish this, the game must have depth, show player progress, and keep the content seemingly fresh for many hours of play.

Expand the optional depth

Optional depth, sometimes called "Z-Axis of Gameplay" or "Secondary Strategy", is an element of gameplay which is not part of the core gameplay in the game, but it adds depth to the gameplay by having the player be able to choose different paths to the end goal, or make the user have more than one goal in the game

For example, in Diner Dash, players may match customer colors with open colored seats to earn additional points. Since points are the end goal in the game, these bonus points enable the player to reach the goal quicker through strategic play. However, the player can succeed in much of the game while ignoring this mechanic altogether. And the presence of this mechanic allows the user to make strategic choices about whether to delay certain actions (under intense time pressure) to pursue the bonus.

Consider Optional Breadth

Consider developing optional game modes and rule sets to broaden the ways the player can experience your core game. Although having a variety of game modes is no substitute for providing a great core gameplay experience, providing additional ways to enjoy your game can extend the game's lifetime once the player feels done with the main game mode.

Provide structure and incentives through a meta-Game

Most games have a very simple set or rules that define the core play mechanic. Included in that core play mechanic is the definition of a win scenario for the "level". Beyond that, most games have some type of "meta game" that a player progress though each time a "level" is completed.

Having a clear way of tracking and displaying long term progress in the game can be crucial to keeping the player engaged and wanting more than just what is offered in the free trial version. Most games should have an end game scenario or a way to "beat the game." This should extend way beyond a single game session.

The game should show the player a long term goal, and then track though progress towards that goal visually. Progress should be carried over from one game session to the next rather than making the player restart from the beginning each session. Downloadable games should save player progress.

Where possible, the player's progress through the metagame should impact the way they play the core game. This can come in the form of players choosing upgrades or power ups that they will use in the game or in the form of the game unconditionally adding incrementally gameplay elements. This variation and deepening of game mechanics is critical to keeping the game feeling fresh and the player feeling engaged.

Make your case for the up-sell

Developers must offer a compelling play experience that customers feel is significantly richer than the free web game demo equivalents. Since players will frequently experience the game via an online version first, and then download and install the game on their PC, there must be significant motivation for a customer to proceed to the downloadable version. Customers are typically motivated by one or more of the following reasons:

i Deepening Gameplay Over Time

During the trial period, the gameplay convinces the player that one will want to continue to play this game over and over. Developers want to ensure the customer isn't questioning, "It was fun for an hour, but will it get any better if I purchase the full game or is it just going to be more of the same?" This is typically accomplished by showing a consistent pace at which new mechanics are introduced as well as showing the player how much of the game they have yet to complete.

ii Higher Quality Experience

Premium content offline play is usually full-screen and advertising-free, typically with enhanced graphics and sound.

Consider the trial-limiting mechanism

The trial version must be carefully designed to motivate players to purchase. It's a difficult balancing act to make the free trial version compelling enough to motivate the customer to buy the game without giving away so much gameplay in the free trial that the player has had their fill. Developers usually limit the player's access to premium game content with one of the following methods.

i. Content Limiting

The game may include the first X number of levels (or the first mission pack) in the free trial version and require a purchase to play additional levels. Typically a player can re-play these demo levels indefinitely.

Content limited is especially hard to do well in some kind of games such as action games. These playable games make it difficult for the designer to decide how many levels to give away.

Including too many levels in the trial version can leave little reason for the player to buy the full version since the trial is satisfying, but not including enough levels in the demo to give the player an experience of what makes the game fun, can damage purchase potential.

ii. Feature Limiting

A common way to differentiate the trial version from the full version is to lock out some features in the trial version. The player must purchase the full version to unlock these special features, such as: Internet high score posting, level editors, expansion packs, or special content such as power-ups or alternate game play modes.

By allowing the player full access to many levels, the player can fully appreciate what makes the game fun, but those few locked out features can motivate the player motivation to the purchase.

iii. Time Limiting

Most large distributors prefer that all their games are limited to a specific amount of play time during the trial period. After sixty minutes of play, the game becomes unusable unless the player purchases the full version. This can be a very effective way to give the customer a full-featured trial play of the game. Players are allowed to experience every feature and play every level they can reach during the trial period.

This gives the player a realistic sample of what the purchased game will be like and allows the game designers to show off his best levels to convince the player to buy, without worrying about giving those levels away permanently; the player will only be allowed to play the levels for a short amount of time.

The vast majority of downloadable trials are time limited, so it is very important to optimize the trial experience with this model in mind.

Production

By Naomi Clark, Independent Producer/Designer

Production considerations for casual games share much in common with production for larger titles, but at a smaller scale. Where large-scale games must cope with the organizational requirements of multiple teams, sometimes numbering over a hundred staff members involved directly in the production of a game, casual games generally have only one team of between three and seven staff—in some cases, even fewer! On the other hand, the constraints of time and money for casual games are correspondingly scaled down, often meaning that there's not as much room to experiment, iterate, or test. Here are some important production lessons that apply to casual games.

1. Know Your Audience

One of the most fundamental principles in game design and production is to understand who you're designing for. The audience for downloadable casual games for PC and Mac platforms is quite distinct from the audience for

hardcore console games, but even within these broad categories, there are many ways to slice and target an audience.

Why was the particular theme and gameplay of your game chosen? Are you trying to appeal to fans of a certain sub-genre, like time management, word games, or hidden object games? What do you know about this audience? Whether you're trying to create a solid "core enthusiasts" game that aims to be an exemplar for a particular sub-genre, or heading into previously unexplored territory, it's worth asking who you think the product will appeal to, and why.

2. Identify and Communicate With Your Stakeholders

Most game producers know that they need to keep their projects' primary stakeholders in the loop—everyone from studio heads to investors or publishers that want to see results—while at the same time maintaining enough distance for the team to get their work done without an overabundance of feedback, course adjustments, and other interference. Although they're smaller in scale, casual games often have just as many types of stakeholders as larger projects do. In addition to investors, publishers, and studio management, casual game developers must take into the particular ways that casual games are distributed.

- **Portals and Distributors** are sometimes overlooked until late in development, but are perhaps the most important stakeholders for casual games. Unless you're planning on doing all the distribution for a casual game yourself, it's necessary to get buy-in from the people who control access to the retail channel, whether a large casual game portal or a company that creates boxed products. Portals and distributors are much less likely than publishers or investors to want to see your unfinished, buggy game—but when you get close to a working beta that's ready to be shown around, it's time to get the portals involved.
- **Community Fans** are a completely different kind of stakeholder, and an excellent resource for casual game developers that can tap into them. Although community relations often play a larger role in games targeted at a narrow group of hardcore enthusiasts, more and more casual game publishers and developers have grown dedicated communities of fans who are eager to provide feedback on games. Although these fans are invaluable in that they're actual consumers of casual games, it's worth keeping in mind that they may not be representative of the "average user."

3. Structure Your Process

There are many different development methodologies out there, from the traditional "waterfall" approach in which each phase of production is completely finished before the next one begins, to more adaptive and flexible "agile" methodologies such as Scrum or Extreme Programming. Casual games, because of their small size and need to adapt quickly to a changing marketplace, can be good candidates for agile methods, especially with an experienced team of developers.

At the same time, some versions of agile software development tend towards a more open-ended development lifecycle where goals and even deadlines are subject to change. On projects with very tight schedule constraints, a more conventional approach where planning is done up-front and then executed may be more suitable. Some casual game developers have adapted their own hybrids that combine waterfall-style "design up front" approaches with agile methods, often embedding agile inside a more traditional gated structure.

4. Don't Neglect the User Interface

While focusing on the large and often exciting unknowns in a project, it's important not to neglect seemingly mundane details. Although it may seem like menu screens, pause buttons, and volume options are all "solved

problems," due to the fact that many or most casual games share certain overarching structures in common, it can take a surprising amount of time to build, skin, and test a user interface, even when building on top of a development platform that offers a lot of basic functionality.

It's important to devote some time to hammering out these issues, both for interface design and wiring it all up in code, so that your project doesn't end up right before a major milestone with a bunch of incomplete screens. Poor or neglected interface design can kill an otherwise excellent game and cause many players to quit before the hour of their trial download is even completed!

5. Reuse and Recycle

Your game doesn't have to run on a 3D engine with a physics simulation to benefit from reusable technology! More and more casual game development teams are taking advantage of middleware or reusable game engines, either developed in-house or licensed by other software companies (Mind Control Software's Orbital platform is an excellent example for casual games). Especially for the small scale of most casual games, it's vital to avoid reinventing the wheel unnecessarily. If your team has developed a solution to a particular problem on a previous project, determine whether it can be adapted for use on your current one.

Secondary game modes are another great example of casual games getting as much "bang for the buck" as possible. They've almost become mandatory for some game genres, and are worth investigating for almost any casual game. With a few tweaks to how the fundamentals of your game works—removing timers, changing the goal or win conditions of your game—can result in a game that uses 90% of the same assets but feels very different. Secondary game modes can involve more changes and create more new requirements than anticipated, however, so careful planning and scoping is a necessity.

6. Test with Users as Much as Possible

With short development lifecycles and frequent re-use of tried-and-true game mechanics, casual games often neglect user testing, which is an unfortunate explanation for numerous "shoveled onto a portal as fast as possible" disappointments. Any game, even one that doesn't innovate significantly, can benefit from playtesting and direct feedback from users.

Playtesting at early stages can be especially frightening for casual game developers, since casual gamers are less tolerant of interface problems, bugs, and frustration than say, a seasoned PC gamer who's used to having to update graphics card drivers. Nevertheless, testing early and often is still invaluable. Early playtests may be marred by a play-hampering bugs or missing features, which can "pollute" a playtester's sense of fun. Of course, if you wait until a later stage of development to start playtesting, there's usual not enough time in the short lifecycle of a casual game's development to make significant changes, even if they're highly warranted.

If your team has a clear picture of what can and can't be tested, what assumptions need questioning and what parts of the experience they believe are working correctly, a playtest can help validate those assumptions, or raise red flags. Casual game are unlikely to have the budget or schedule to conduct carefully controlled playtests with multiple observers and recording of player actions and facial expressions, but even one or two testers observed by one game designer can make a significant difference for a project—as long as the game designer can refrain from interrupting the player to explain how the game works!

7. Don't Forget the Final Prep!

At the end of a casual game development lifecycle, there are a slew of new tasks that must be completed before the game can launch on portals or be boxed for distribution in retail channels. Many first-time casual game producers and developers are caught unawares by these last-minute necessities, which can usually be anticipated and started ahead of time. While programmers are going through the final throes of debugging their work and delivering series of release candidates to the QA team, the rest of the team should make sure that written and graphical assets are prepared for marketing and distribution purposes.

In the case of games being boxed for retail, the deadlines for creating physical materials like boxes, manuals (a rarity in the casual game world) and storage media tend to be written in stone and anticipated in schedules. Casual games, on the other hand, often find their first and most critical release on multiple casual game portals. Thanks to digital distribution, the process of final preparation can be much simple and quicker. By the same token, it's easier to forget that these needs must be accounted for, resulting in an unnecessary delay before the launch of a game.

Every game portal has guidelines for how games must be packaged for delivery, which always include marketing copy, system requirements, and web-ready graphics at multiple sizes. Sometimes this process is handled by publishers, but the best (and often only) source of creative materials related to the game is ultimately the development team. Accordingly, it's vital not to let key team members vanish from the project too early! If the development team has adequate communication with the business side of decision-making about which portals will be distributing the game, it's usually possible to anticipate what kinds of assets will be needed.

For the growing number of casual game developers who distribute their own games instead of or in addition to working with other distribution partners, it's also necessary to consider Digital Rights Management (DRM) solutions and leave adequate time for building, testing, and visually customizing the e-commerce portions of the user experience. Again, it's critical not to leave this process for the last minute, because some DRM wrappers have been known to interfere with game code, sometimes resulting in major problems.

Key Players

By Mike Wabschall, <get title>, Foundation 9 Entertainment

Many of the key players in the downloadable space extend into other business such as Browser-Based games and derivative products.

Alawar Entertainment

http://www.alawar.com/

> Alawar develops, publishes and distributes casual games online and by CD-ROM manufacturing. Since 1999, Alawar has published over 150 titles. They are the biggest casual games provider in Eastern Europe. They distribute their titles on their portal site and through their game box technology.

Big Fish Games

http://www.bigfishgames.com

> Big Fish Games Studios develops and publishes the industry's leading brands for computers, mobile devices and consoles. Its portfolio of hit games includes Mystery Case Files®, Hidden Expedition™, Azada™ and

Fairway Solitaire™. Their portal offers an expansive catalogue of games. Their motto is “A New Game Every Day!™”.

Electronic Arts Casual Entertainment

http://www.pogo.com

Pogo.com™ is the stickiest site on the Web (according to Media Metrix) and is a brand of Electronic Arts™, the world’s leading developer and publisher of PC and console video games. This games destination provides players with a wide variety of free online puzzle, word, casino, classic card and board games.

Enkord

http://www.enkord.com

As a developer/publisher, Enkord has created original casual games for its portal and distributed them through distributor partnerships with groups like RealNetworks and Big Fish Games. Enkord focuses on casual games targeted to males with genres like action, arcade, shooter and strategy games.

Gamelab

http://www.gamelab.com/

Founded in 2000, Gamelab has developed single player and multiplayer online games. They created the smash hit Diner Dash. Recently, they released Jojo’s Fashion Show..

Gogii Games

http://gogiigames.com/

Gogii Games is casual games Publisher/developer working with developers and IP owners to help develop, distribute and license its IP or product to retail, online and alternative channels worldwide.

HipSoft

http://www.hipsoft.com/

HipSoft is the developer (and self-publisher) of the highly successful Build-A-Lot series of downloadable games. They also created the FlipWords, Puzzle Express, and Trivia Machine games.

IT Territory Casual

http://www.it-territory.ru/

Founded in 2004, IT Territory is a developer and publisher of browser-based massively multiplayer online games. Along with being Russia's number one publisher, IT Territory has developed the leading distribution network in Russia and Eastern Europe.

iWin

http://www.iwin.com

iWin, Inc is an online developer, publisher and distributor of casual games for the mass market. iWin.com is one of the leading casual game portals, reaching millions of visitors every month from all over the world who play games together as part of the iWin community. iWin, Inc provides downloadable games, multiplayer games, and web-based games.

Large Animal Games

http://www.largeanimal.com/

Large Animal Games develops original titles such as Lego Bricktopia and Saints and Sinner's Bowling. They distribute their games and others on their portal site.

Microsoft® Casual Games

http://www.microsoftcasualgames.com

Microsoft® Casual Games now offers more than 400 games via MSN® Games, Windows Live Messenger Games, Microsoft Windows® Games, Xbox LIVE® Arcade and soon mobile games, providing the ultimate playing experience to more than 125 million casual gamers per month and allowing players from around the world to compete, collaborate and socialize — anywhere, anytime.

MumboJumbo LLC

http://www.mumbojumbo.com

MumboJumbo is a worldwide publisher, developer and mass marketer of premium casual games for PCs and game consoles.. MumboJumbo games are downloadable at its website as well as key game portals operated by RealNetworks™, Microsoft, Yahoo! and Big Fish, or purchased at retail through mass merchants, computer retailers and specialty outlets.

MTV Networks

http://www.shockwave.com

http://www.addictinggames.com

MTV Networks operates two major portal sites focusing on casual games: Shockwave.com and AddictingGames.com. MTV Networks develops and publishes over 300 interactive properties worldwide, including online, broadband, wireless and interactive television services.

Oberon Media

http://corp.oberon-media.com/

Oberon Media provides DRM services. The Oberon Game Center platform is used widely throughout the casual game industry. The platform combines casual-game content, merchandizing and features to fulfill each partner's specific needs.

PlayFirst, Inc.

http://www.playfirst.com

PlayFirst is a full-service publisher of casual games with a strong focus on the downloadable game market. PlayFirst funds and distributes titles created by their internal studios and by independent third-party developers. They are best known for the Diner Dash product line, but have also had hits with the Chocolatier and Dream Chronicles brands.

PopCap

http://www.popcap.com

Started in 2000, PopCap has developed many award-winning casual games for PC. They also develop titles for mobile and console platforms. They've created the PopCap Games Framework, a free engine, which developers can use to create games.

RealNetworks, Inc.

http://www.realarcade.com

RealNetworks, Inc delivers a wide array of casual games through its portal, RealArcade. Recently, RealNetworks, Inc. acquired Trymedia, an established pioneer of casual game syndication.

Reflexive Entertainment

http://www.reflexive.com/

Reflexive develops and publishes casual games for PC. They are working on a new title for XBOX 360. In addition to developing games, Reflexive runs a casual games portal.

Spill Group

http://www.spillgroup.com/

Located in Europe and Asia, the Spill Group manages numerous, worldwide game portals. They are a leader in distribution and marketing. They develop original titles through their Asian studios.

Yummy Interactive

http://www.yummy.net/

Yummy Interactive Inc. provides technology solutions for secure digital delivery of games and applications via Internet. Yummy provides a complete, customized turnkey solution to broadband service providers, consumer portals, retailers, and software publishers to deliver and manage Games on Demand services via the Internet.

Advergames

Section Editor: Brian Robbins, Executive Producer, Fuel Industries

Overview

By Brian Robbins, Executive Producer, Fuel Industries

Advergames are games which are built around a brand or product. The primary distinction of an advergame from other types of ad-supported games, is that with an advergame the full experience is built to embody the brand or messaging for the supported product. Advergames can range in size and complexity from very small web-based games, to full scale console experiences. Typically advergames are funded by brands as a marketing activity and there is rarely any direct revenue targets associated with the final product.

Many smaller advergames are repurposed from previous games and game engines, while larger experiences are often custom built to meet the campaign requirements. Branding within the game may be very small and almost unnoticeable, or it may dominate the visuals of the full experience.

The success of an advergame is typically measured in terms of the number of users (reach), the number of plays (frequency), and the length of time played (engagement). These games are almost always available for free, and may be distributed on brand websites, gaming portals, or custom websites created for the campaign.

The biggest advergames, are a part of an larger media campaign that will often cross multiple media platforms, including TV, Radio, Outdoor Media and more. In these campaigns the advergame may be the cornerstone used to drive the messaging, or it may be one piece that helps to reach a particular audience.

Art History

By Jessica Grundy, <fill in title and employer>

The concept of Advergaming has existed for nearly as long as the game industry itself. The earliest Advergame is likely *Datsun 280 Zzzap*[1] an arcade game released in 1976 promoting the Datsun 280 Z. Other early examples include *Tooth Protectors* created in 1982 for Johnson & Johnson, *Chase the Chuckwagon* created in 1982 for Ralston-Purina and *Pepsi Invaders*, created in 1983 for Coca-Cola Company sales executives[2]

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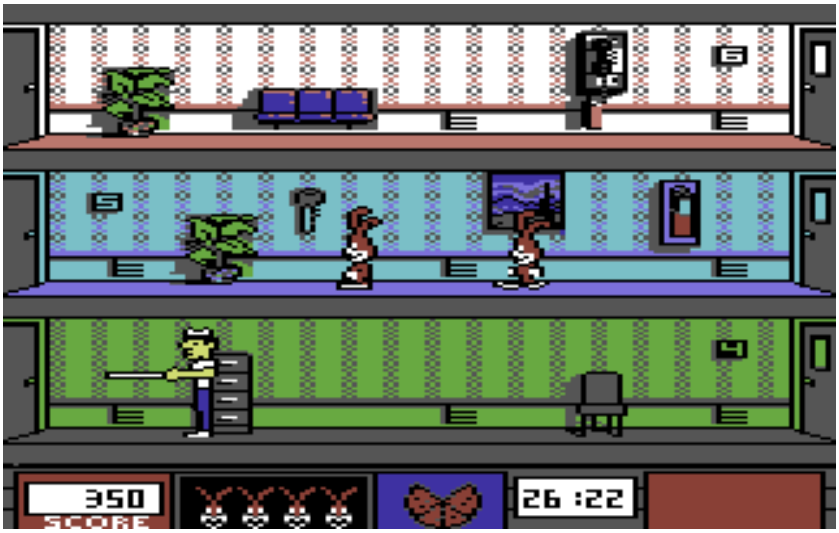
[1] http://kotaku.com/gaming/advergames/early-advergames-part-ii-322391.php

[2] http://en.wikipedia.org/wiki/Pepsi_Invaders

Pepsi Invaders - 1983[1]

By the late 1980's production quality on advergames had increased, and more advanced games were being released. In 1989 BlueSky Software developed *Avoid the Noid* published by ShareData and created to promote Domino's Pizza. Players assumed the role of the Noid, prominently featured in the Domino's advertising messages at the time:



Avoid the Noid - 1989[2]

In 1993 Treasure Co Ltd. Created *McDonalds Treasure Land Adventure* for the Sega Genesis.

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[1] http://en.wikipedia.org/wiki/Image:Pepsiinvaders.JPG

[2] http://www.mobygames.com/game/c64/avoid-the-noid/screenshots

McDonalds Treasure Land Adventure[1]

In the mid-1990's with the burgeoning Internet, and prevalence of Shockwave and other plugin technologies, brands began to move their advergames online. One of the first examples of this was LifeSavers (now Wrigley's) Candystand, which launched in 1997.

Candystand.com circa 1997[2]

The overall production quality on advergames continues to increase every year. Today, many advergames have larger budgets than casual games, and are reaching a level of complexity and polish equal to or greater than other parts of the game industry. These games may incorporate video, pre-rendered 3D graphics, or even Xbox 360 console games such as *Sneak King*, *Pocketbike Racer* and *Big Bumpin'* developed by Blitz Games for Burger King in 2006.

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[1] http://www.gamefabrique.com/mcdonalds-treasure-land-adventure.html

[2] http://candystandblog.blogspot.com/2007/07/trip-down-candystand-memory-lane.html

Big Bumpin' - 2006[1]

Stewie Live - 2005[2]

[1] http://www.dignews.com/review.php?story_id=20444

[2] http://www.stewielive.com/

Get the Glass - 2007[1]

The Market and Audience

By Jónas Björgvin Antonsson, <fill in title>, Gogogic Games

The audience for advergames varies depending on the brand behind the game, and what that brand is trying to accomplish. Some games may be created to reach a very broad group, including people who normally would not play games, while others may target a very niche audience. The target player changes with every project, and when considering the realm of all advergaming, truly reaches into every demographic.

The primary distribution mechanism is through websites, and the most successful projects are distributed "virally." That is they derive a significant amount of their traffic via word of mouth, e-mails to friends, blog and social network posts, etc. According to a Jupiter Media Metrix survey, 86% of internet users passed viral messages onto another person while 49% passed them on to more than three people. However it should be noted that not all of these viral messages were advergames, as that term also includes videos and other pieces of entertainment.

According to a recent eMarketer report[2] roughly $207 million was spent on advergame development in 2007, or 41% of what marketers laid out on video game advertising of various forms that year. That same report also predicts that various video game advertisement forms will lure marketers to increase their spending between 90-130% by 2012. That could result in the advergame sector reaching $500 million annually before 2012.

Business Models

By Deepak Abbot, CEO, Zapak.com

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[1] http://www.gettheglass.com/

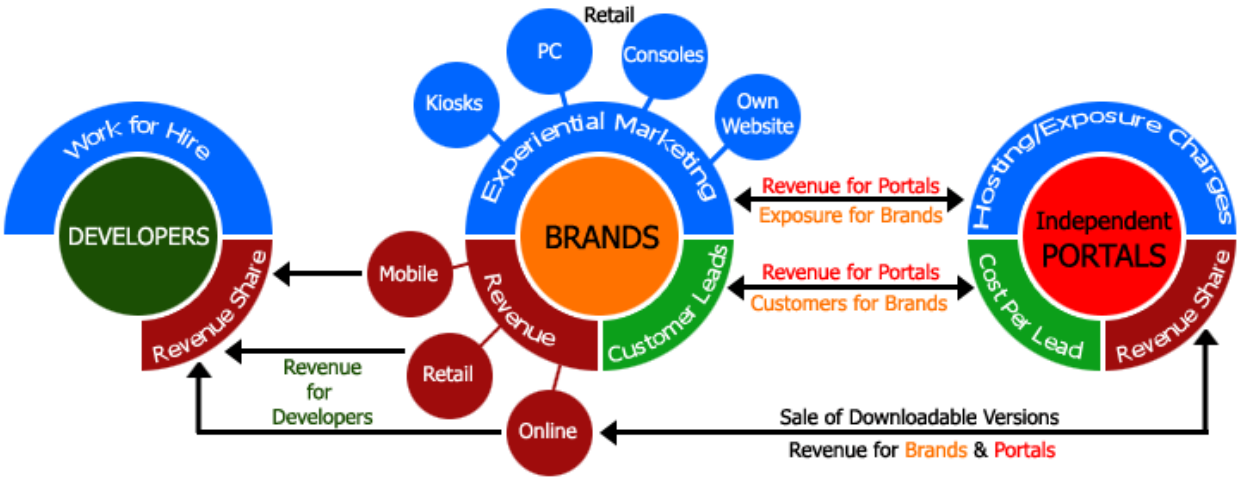
[2] http://www.emarketer.com/Reports/All/Emarketer_2000485.aspx?src=report1_home

Advergames theoretically are categorized into above the line (ATL) & below the line (BTL). ATL Advergame would include games like *Volvo Drive for Life* (Xbox, 2005) which are intended to make customers aware of specific products and features. Burger King games can be categorized under BTL which promote a brand but do not give specific information about products.

Advergame is a big business with over US$16.4 billion spent on advertising in 2006-07[1]. Some of this money is surely being invested in Advergames.

The Advergame industry alone is expected to generate $312.2 million by 2009, up from $83.6 million in 2004, according to Boston research firm Yankee Group. With in-game advertising expected to generate $732 million in 2009, we are looking at a billion dollar market in 2009.

Here is very high level diagrammatic representation of the various models each party would consider in Advergames:



Brands are the centerpiece of the entire business model who identify the need of Advergame & then conceptualize the game play based on their brand requirements. Games are generally outsourced to independent developers who would work closely with brand managers to create a game. Once the game is ready then its final destination is based on the platform for which it is created. In case of console or PC game, it heads for retail market whereas a web game goes onto either corporate website of the brand or independent portals for quick & large exposure.

Typical Business Objectives

Above process highlights the various business objectives for each party in the value chain which is summarized below:

Brands

- Earn Revenue from retail or mobile salesExperiential Marketing to build brand equity among future customers
- Generate Leads for product sales

[1] IAB UK, PwC, IAB PwC, ABVS, Future Exploration Network

Independent Portals or Carrier (incase of Mobile)

- Earn revenues by generating leads (Cost per Lead)
- Earn revenue from selling downloadable version of the games by keeping a share of sale price.
- Billing brands for hosting & promoting the game using banners, mailers etc.

Developers

- Earn revenues by picking up "Work on Hire" basis
- Revenue Share from sale of Advergames (retail or downloadable)
- Brand's Perspective in Detail

Direct Response Advergames

Advergames are generally not created for earning direct revenues but Burger King established that model successfully in 2006 making over $12million in revenues. Successful brands with strong intellectual properties can venture into this quite easily.

Another objective for brands is to generate direct leads. This would eventually mean more customers for the brand which leads to revenue indirectly. This is applicable on games hosted on independent portals as technology integration allows portals to pass the player's details to brands. Example for this model can be seen on Zapak.com (http://www.zapak.com/whisper.zpk) which created an Advergame for P&G for the whole purpose of generating leads from girls interested in using Whisper sanitary napkins.

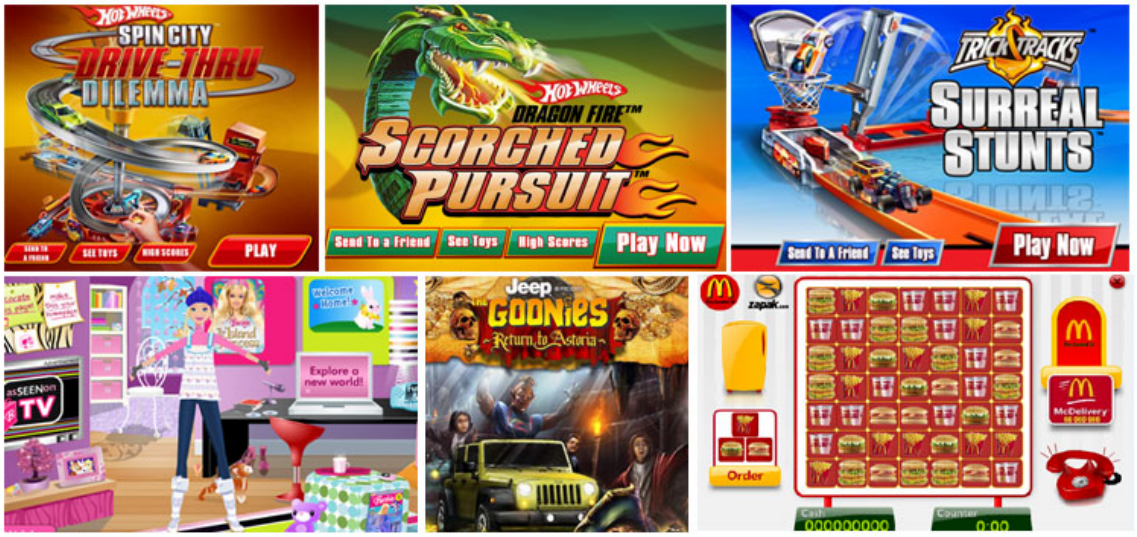
Miniclip.com also created a game for Churchill Insurance (http://www.miniclip.com/games/challenge-churchill/en) for the purpose of diverting traffic to Churchill Insurance's website where users could know more about their policies. As shown in the business model diagram above, this helps both Portals & Brands to either earn revenues or drive customers.

Experiential Advergames

Many advergames focus on experiential marketing rather than direct response. These "associative advergames" support brand awareness by associating the product with a specific lifestyle. The associative game helps in placing the product top of mind for the consumer.

Having described the above two models for Advergames, it's the experiential marketing which leads the pack when it comes to creating an Advergame strategy. Companies crave users' attention and leave no stone unturned on their way to make the user aware of their products. This leads to the creation of what is called demonstrative advergames which are created to allow the users to experience the product virtually and – hopfully – leads to desires to own the product. Some of the best example of these would be games from Hot Wheels based on their products Drive-Thru, Dragon Fire & Trick Tracks. These games are not only fun to for kids play but generate a strong urge to own these physical products. Mattel adopted the same approach for Barbie when it created a games portal (http://barbie.everythinggirl.com) hosting many games directly promoting various Barbie products.

Even Disney's Virtual Magic Kingdom (http://vmk.disney.go.com) can be part of experiential marketing as it takes the kids on the tour of Disneyland which will definitely excite them to go therein person and experience all the thrills in reality.



Portals' Business Objectives

Advergames provide great benefits to brandholders, but but also provide a good business model for portals too. Portals like Miniclip.com, Zapak.com and Candystand.com are profitably hosting some of the most interactive web advergames available today. Candystand.com launched in 1997 by Life Savers (now owned by Wrigley's) attract 5 million unique users per month. Wrigley has been using this not just as a platform to showcase its product but also to create new business as customer acquisition-focused portal.

India based Zapak.com hosts over 30 advergames for leading brands like Intel, Logitech, McDonalds, P&G, HP, Gillette, Coca Cola, Cadbury's, Unilever & more. These games are played by over 4 million unique users every month making it one of the biggest web based game portals in the world.

There is a dual benefit for portals here – one is that they get content for their ever growing community and secondly they charge premium from brands who would like to expose their brands to millions of users.

Portals have two other revenue streams besides charging brands for hosting their games. Portals charge brands for each lead they create when users interact with the games. Portals generally have lot of details about each of its users and they can pass on the information to brands when users play those games (subject to the terms of the portal's privacy policy). Brands can then use that database for its various business objectives.

More revenues could come for portals from sale of downloadable advergames which are generally sold on the basis of revenue share. This model is relatively unproven for non-media brands, but has seen heavy success with existing media licenses (e.g. Nickolodeon and Cartoon network properties).

Game Developer's Business Model

Developers have always adopted very simple business models to keep their focus on their core strengths – being creative and developing good games.

Although developers play the most crucial role of giving birth to the games, most of them are generally don't receive prominent credits and don't have strong revenue upside. There are a few exceptions to this rule – mostly established advergame developers like Skyworks and Fuel Industries who have been in this business for a long time and have created stunning games for lot of leading brands.

Advergame developers generally adopt a work for hire business model where they are paid once for their efforts and all the rights are retained by companies commissioning such games. The development cost of an advergame can start from US$1,000 & can go up to US$1 million for complex games.

A few developers are able to secure revenue share deal with the consumer goods companies that commission their advergames. Revenue share deals are generally done by a small number of prominent brands to ensure that the final product quality is not compromised. These deals are mostly done on downloadable try-and-buy advergames. Since the developer's revenue is directly proportional to sales of game, the developer has a strong business interest in creating games which can become big hits in retail or online marketplace.

Advergame Specific Design Principles

By Jónas Björgvin Antonsson, <fill in title>, Gogogic Games

Almost every advergame is built for a client who basically sees the game as a vehicle for a brand or a specific marketing message. From the client's perspective, it is more about the advertisement than the game. This means that the client needs to be convinced that game mechanics, over-all game design and the final result are all in line with what the game has to achieve as a marketing tool, rather than as a game. The result is an addition of design specific demands that result from the extra focus of building both at the same time - a great game and great advertisement.

Budget Constraints

Advergames usually have a fixed budget, before they go into production. In many cases the client will even set a budget before anything can be conceptualized or designed. In other words, the marketing campaign already has a budget set and a planned advergame has to fall into that budget.

This clearly affects design in a very direct way because the production of the game has to be both profitable for the client and profitable to the company. The budget can affect the size of a game, the platform, and the assets that have to be created, along with everything else. Having a fixed budget before having a concept is, thus, a particularly clear constraint when it comes to design.

Conceptual Constraints

A client's identity can come into play when an advergame is being designed. The identity usually affects the underlying concept of the game, where the most obvious example would be that if the client is a car maker, then the advergame should probably be built around cars – as a racing game, for example. Thus, the identity of the client has direct impact on design.

This also holds true when an advergame is built around a specific product or an event. In most cases the underlying element being promoted has to come through when the game is played. That means that the game design has to center around whatever is at the center of attention from the clients perspective.

Goal Oriented Constraints

As stated earlier, when a client solicits someone to build an advergame, he is looking at the project from a marketing perspective, where the goal is simply and purely to introduce a specific message to an audience that might be more receptive to games, compared to other media, or where the interaction that the player has with a game can be used to reach a specific goal like getting more people to sign up for newsletters or notifications that can be targeted and tailored to the advergame audience.

Basically, this sometimes means that the client doesn't care as much for specific game mechanics as he cares for how the game represents its underlying marketing objectives or the image that the client wants to convey.

The client can, for example, have issues with how a game falls in place with an overall corporate image, an already established brand, pre-selected color schemes and layout – all this without really focusing on any specific game elements.

It can be tempting for a developer to focus on the game mechanics while letting the advertiser goals take a back seat, but this can often lead to critical design conflicts.

How does this affect design?

Since the goal of creating an advergame includes building a great game and great advertisement, the over-all impact is binary focus which affects design in a fundamental way. It introduces additional constraints and raises complex issues, both in regard to core game mechanics and in regard to what can be made, how it can be made, how it should look and to whom it should be introduced.

It is mandatory to start with well defined goals for the game – both as a marketing asset and as a game that should be fun and entertaining. It is also very important to remember that if a game fails at being great as a game, it will also fail as advertisement. A game could even do damage to a brand image if handled incorrectly – for instance, if it portrays an image of what is ultimately being sold, which is completely out of line with reality.

It is also important to remember that an advergame that succeeds as a game but fails as advertisement – which happens if the original goals of the client aren't met – should be considered a failure, rather than a success. Such a game is not likely to facilitate return business or new clients. A company that builds advergames for a living needs both.

Production & Development Issues

By Jeff Murray, Executive Producer, Fuel Industries

Introduction

Advergaming is growing and changing at an incredible rate. As bandwidth and technology improves the production times get longer, the graphical quality gets better and the games get more complex. Advergaming is evolving, yet some fundamental aspects continue to challenge the production process. In this section, we will explore those aspects and investigate the ways in which advergame production differs from the development of casual games and traditional retail titles. We will explore the growing number of distribution models and how what kinds of restrictions or benefits may be found in each. Following on, we will evaluate evolving design and production processes that may be helpful in this particular area, taking into account the numerous restrictions and constraints found in its former section.

Budgetary

Advergames typically have a fixed budget that is significantly smaller than retail game production. That said, the scope and technology demands of advergaming is growing; with budgets growing to match. Modern online marketing may involve embedded video, extremely high quality artwork, stereo sound and - in some cases - full 3d graphics to keep pace with changing expectations of the market. Larger scale elements such as the latter represent new challenges due to the increase in workload to produce them. With more substantial budgets some payments may be

possible upon achievement of milestones, although it may often be the case that the developer is required to wait until project completion for payment, therefore increasing the risk for entry-level studios.

Production costs of advergame projects continue to rise, although not in a comparable fashion to similar media such as download titles. It is certainly a struggle for such a budget to produce the kinds of content that a modern audience expects and in many cases, studios are able to produce advergames using existing game engines, which makes it harder for start-up studios, who lack existing game engines, to compete.

As a side note; We must try to control expectations of clients (both 'internal' clients and external) through good communication right from the start of the project until completion. It is vital to ensure, for example, that your client is not expecting a AAA title to fit into a $70,000 budget and remain within a 50 megabyte download limit!

Clients and client focus

When working with a brand, it is of the utmost importance to represent the brand effectively and with respect. Advergames need to be designed around the brand and relevant to the target audience. When advergaming first came about it was commonplace to see a sliding puzzle with a company logo in it - thankfully, advergaming has moved on. When designing an advergame, the brand should be at the center of the game universe in everything from the overall theme to the movements of game avatars. Portraying a brand in every manner possible to 'touch nerves' with viewers is the number one priority, not haphazardly throwing company logos into existing content and hoping for the best.

Whereas retail titles have publishers, when dealing with advergaming it is almost certainly going to involve a client whether that is an advertising agency a brand owner. Due to the nature of the business, there is a tendency for clients to focus more on the aesthetics of the game rather than the actual game experience. It is important to try and give the client a good understanding of the technology at an early stage so as to set client expectations to a realistic level.

The emphasis is almost always on delivery in advergames, rather than a return. In retail, if a title reaches completion and it is found to be buggy or there are gameplay issues, production may continue for several months until the title is deemed good enough for launch. More often than not, clients will be launching an advergame in conjunction with other media buys such as television or radio advertising or product labeling. This means increased pressure to deliver right first time, on time. Quality must be monitored throughout the project carefully and a final, well tested and polished build delivered for its completion date.

During the development processes, a client will often demand or be required to sign off on graphics and audio. This can often impact development as larger clients may take days or even weeks to return approval. Having a clear timeline and a clear milestone set up is beneficial to both parties in this situation and it is not uncommon to set out deadlines on client approval to keep things on track.

Distribution models

There are several distribution models available for advergaming, each one with its own pros and cons

Downloadable casual games for purchase

- Less file size restriction (although most download products are kept to less than 200mb).
- Brand becomes integrated into users system, albeit in a trivial manner such as Window's Start Menu.
- Increased wait time before gameplay.

- Additional monetization

Free downloadable games available from an advertisers website

- Less file size restriction (although most download products are kept to less than 200mb).
- Brand becomes integrated into users system, albeit in a trivial manner such as Window's Start Menu.
- Increased wait time before gameplay.

Console-based promotional games distributed through retail outlets

One of the biggest console-based advergames was a promotion by Burger King whereby customers could purchase a boxed title in-store at a reduced price in conjunction with a meal purchase. The main advantage of this model:

- Lack of file size restriction (other than the CD / DVD, which is significantly larger than other distribution methods).
- Known target platforms - a lack of compatibility issues.
- A boxed product bringing advergaming 'into the physical world'.

Browser-based games

The server-client structure makes it a lot easier to accumulate user data and demographics. For example, in a game where customizable characters are made available to the players we can capture the popularity of each character, the characters sex, hair color etc. to give a better understanding of an audiences preferences.

- A visitor is exposed to the brand and is more likely to look further around the site and learn about the products being advertised.
- Sweepstakes and competitions. Again, the advantage of having the game on a server means that there are less issues involved in securing content to allow for sweepstakes or high score competitions.
- E-mail 'send to a friend' means that visitors can quickly and easily pass on the game to their friends or family.
- Since all you need to run these games is a browser, visitors can play the games at home, at work, or from public or shared computers without the need for installation or registration.
- Compatibility issues (cross-platform or variation of hardware)
- Users may need to install a browser plug-in.
- Limitations in technology choice.
- Huge limitations in file size.

File size

Reducing file sizes can lead to a loss of graphical quality, loss of audio quality and less polish. It is often difficult to meet client expectations and, at least to some degree, internal expectations such as those of a graphic design or 3d department. Reducing texture sizes or downsizing non-transparent images from 32 bit color depth to 16 bit can help a lot - when carried out with care, the quality loss can be minimal.

Audio is another challenge. Producing audio for browser-based content can be a heart-wrenching experience for the musician as a 32 megabyte file gets compressed to a 1 megabyte file that sounds as though it was recorded in a tube.

Such a focus presents interesting conflicts, especially where the browser-based or download models are required and such limitations as file size, target user machine specs and bandwidth limitations have to be factored in.

Technology choice

Plug-in penetration rates are often seen as a key factor to the technology choice, since all advertisers want their content to be visible to as many potential consumers as possible. One of the most popular choices for 2d browser-based games is Adobe Flash. The latest version is said to be installed on around 838 million systems, equating to around 98.8% of 'Mature Markets'[1] The same player census shows that 3d technology, on the other hand, has a significantly smaller penetration rate, with the most popular choice for 3d browser-based content, Adobe Shockwave, cited around 59.3% penetration.

One method to improve adoption is to provide clear indications as to the quality of content the user is going to get once they have downloaded the plug-in. The actual plug-in installation process will also be a factor here, since a one-click installation will always trump 5 clicks to refuse irrelevant additional content.

It is expected, if not demanded, that browser-based games run on both PC and Macintosh systems. This can lead to extended testing periods as problems may be encountered on one platform that are not apparent on the other.

It is more difficult to debug browser-based content due to browser security restrictions. There may be times when the browser just shuts down with no explanation, whereas the product ran fine in the IDE. Whilst there are minimal debugging tools available, sometimes they may prove to be ineffective.

Exploring technologies available for downloadable titles is beyond the scope of this document, as technologies range from hobbyist coder languages such as Blitz3d or the Torque Game Engine to AAA engines such as those seen in larger retail titles.

Game design and demographic

Since advertising is such an 'immediate' medium, getting the users in to the game as quickly as possible is paramount. Whilst hardcore gamers would be willing to download gigabytes to play, the same cannot be said for the majority of casual game players; even more so when the content takes the form of an advertisement for a specific product.

In many cases, a client will already know who their target audience is. RFPs (Request For Proposal) often state exact requirements for target audience focus including (but not limited to) sex, age, hobbies, interests and income types. This data is often very helpful during the initial planning stages, however reducing pigeonholing or stereotyping of audiences is perhaps more of an art than a science. Needless to say, it is of the utmost important to bear in mind who is going to be playing the game and why they are going to be playing it. This understanding should permeate the game's design – from the core mechanics and delivery format to the cultural references and lifestyles represented. Failing to consider these issues will make it very difficult to attract the target audience and deliver the advertiser's message properly.

It is also worth noting that most advergames' short development schedules make it difficult to invest in experimental or unknown gameplay due to the long pre-production and playtesting cycles required. (Of course, where developers can get the time and budget for this it's great, but it's often unrealistic in the advergaming world.) This means that most advergames will stick to established genres and mechanics with much of the innovation focused on finding interesting ways to integrate the advertiser's brand and message.

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[1] http://www.adobe.com/products/player_census/shockwaveplayer/

Development techniques and methodologies

Despite the advances in advergaming and the growth of project sizes, there are still a number of smaller projects that can be managed by smaller development teams. Frequently, smaller games may be programmed by a single programmer working alongside scaled-down design teams. This can be both a blessing and a curse, as the burnout rate for single developers is high. On the plus side, these smaller projects are shorter by nature and a developers may maintain a high level of interest longer than with a longer development cycle.

Due to the timelines and nature of change in advergame development, it can be challenging to find the most efficient production method. Agile project management methodology is gaining favor in the game industry; many development teams favor it because of its flexibility and ability to adapt effectively to specification changes that are typical of game development. .

Prototyping

Unlike other production methods, it is difficult if not impossible to budget for prototyping. Without prototyping, one of the biggest problems is the numbers of revisions that clients may come back with. If it were possible to produce a prototype of, for example, the user interface before actual production-time, a client is able to experience functionality first-hand. When budgets often do not allow for this kind of model and a studio must be prepared for a number of changes in functionality along the way which can often cost more than the original pre-production would have.

QA and play testing

QA has to take place during production as early as possible. This may take the form of having several people play test the game or of a more formal process. Testing at an early stage can save a lot of trouble at the end of development. Test case plans should be drawn up to establish focus on particular areas of the game, such as areas that are particularly prone to bugs. Care must be taken not to focus too much on one particular area and testing should include as many general/global tests cases as possible. One particular format for a test case plan might be:

Test no.1

Description: Rollover the button.

Expected result: The rollover should show the button in a rolled over state.

Actual result: The button did not change.

Test no.2

Description: Rollover the button.

Expected result: The rollover sound should occur.

Actual result: The sound appeared.

Cases should be drawn up for every item. Once a test case plan is complete, it can be passed on to testers to run through and will ensure solid functionality. In the case of quick and dirty advergaming development, it can be

difficult to put together a full and robust test plan, but the final product quality (and customer satisfaction) will benefit significantly from a strong QA process.

Cross-platform / Cross-branding

There are many opportunities for advergaming to stretch across different types of media. For example, a TV commercial may advertise a website which further advertises a TV show and further mobile downloads. All opportunities to expand a brand across different media should be exploited, such as mobile downloads being unlocked for completing levels in an advergame offering such bonuses as wallpapers or ringtones.

Funding Models

By Jonathan Bankard, <fill in title and company>

Funding for the creation of an advergame typically trickles down from a consumer brand's marketing budget. Their purpose in funding an advergame is to build awareness - eyeballs that see the game - and to engage the customer – people remember things better through interaction. Some example brand marketers are Coca-cola and Toyota. The brand marketer will most commonly fund an advergame for a particular product during its launch to build awareness. A good example of this tactic is the Yaris game for XBLA. Another strategy is to create advergames to build the overall brand, rather than target a specific product. Examples for that include the Burger King Xbox360 games and millsberry.com for General Mills.

Once the marketer chooses to fund a game, the route the money takes varies by company preference. It can flow directly from the brand marketer to the developer, from an ad agency to the developer, or through an ad agency then a portal and finally to the developer. In the end, money lands in the lap of a developer. An important distinction that exists in advergaming is that the developer receives a fixed amount of money for delivering the game.

Since advergames are provided to customers free of charge, developers must build their profit in to the contractual fees charged for development. There is no monetization of the end-user here except through the increased purchase of retail goods. Since it is difficult to isolate what effect any part of the marketing plan had on sales, development contracts stick to a fixed-fee structure. None of the retail sales are shared with the game developer so proper planning is necessary to be sure that developing the game is a wise and profitable endeavor versus alternative plans.

Budgets range everywhere from below $1,000 to over $750,000, with an average of about $20,000. A brand new game will bring in a richer contract than a new skin to an existing title, or a game made using an existing engine. Similarly, the sales cycle for larger projects grows quickly as well with top-tier projects potentially taking more than a year to sign. Bigger brands are more willing to devote larger budgets to games since it is a drop in the bucket for their budget, but they have much more stringent legal agreements.

Developers are generally approached because of their past experience in this field, which boils down to delivering on time, in budget, and attracting the necessary eyeballs. Game design is not as important in these games because the brand marketer is paying for eyeballs and not an award winning game design.

Key Players

By Deepak Abbot, CEO, Zapak.com

Key Players in Advergame can be clubbed under two heads – Developers & Platforms

Developers

- Blockdot (www.blockdot.com)
- Skyworks (www.skyworks.com)
- Arkadium (www.arkadium.com)
- Three Melons (www.threemelons.com)
- Silent Bay (www.silentbaystudios.com)
- Fuel Industries (www.fuelindustries.com)
- 3rd Sense (www.3rdsense.com)
- Label Interactive (www.labelinterctive.com)
- Blit Interactive (www.blitinteractive.com)
- Splashworks (www.splashworks.com)
- Gamebrander (www.gamebrander.com)
- Skive (www.skive.co.uk)

Platforms (Portals & Websites)

- Miniclip.com
- Zapak.com
- Addicitnggames.com
- Shockwave.com
- Candystand.com
- HotWheels.com
- Barbie (Barbie.everythinggirl.com)
- Jeep.com

Ad Supported Web Games

Section Editor: Michelle Lee, <get title and company>

Advertisting and Games

Interactive games have been used for advertising for over 30 years, dating back to the mid-1970's when some arcade games began to be sponsored by advertisers. Advertising in home video game consoles began in the 1980's, when companies began inserting branding into Atari VCS games.

The use of interactive games for advertising continues to grow in importance in both casual games and in the broader games industry. Today, hundreds of major companies use games to advertise an extremely wide range of products from cars to financial services to toys, food, apparel, communication services, and much more. Companies utilizing games for advertising include Ford, General Motors, Chrysler, BMW, Toyota, Kraft, Nabisco, Campbell Soup, Post, Pepsi, and Nike to name only a few.

There is great potential for growth in the use of interactive games for advertising. According to a June 2008 report[1] from market analyst firm IDC, worldwide Internet advertising will total $65 Billion in 2008, accounting for approximately 10% of all advertising. IDC projects an annual growth rate of 15-20% over the next four years, resulting in 2011 worldwide Internet advertising of $106 billion, with $45 Billion of that in the U.S.

A significant amount of money is already being spent on advertising in and around games. In February 2008, interactive media analyst firm eMarketer estimated[2] 2007 revenue from advertising in games in the U.S. totaled more than $500 million and projects growth to more than $1.0 Billion in 2012.

Advertising in games has been endorsed by the Interactive Advertising Bureau (IAB), the largest industry association "dedicated to helping online, Interactive broadcasting, email wireless and Interactive television media companies increase their revenues." IAB members account for 86% of all interactive advertising sold in the U.S. (See http://www.iab.net/about/index.asp)

The IAB's Games Committee has been functioning for more than 5 years "to articulate the value of gaming as an advertising platform". The committee currently has more than 75 members, with representatives from many major media and game companies, including CBS, ESPN, Walt Disney, Sony, FOX Interactive (News Corp), Akamai, Google, Yahoo!, Microsoft, Electronic Arts, and many more. The immediate objectives of this group are to "develop industry definitions, standards, and guidelines and educate key industry stakeholders on the value of advertising in games." (See http://www.iab.net/comm/games_comm.asp)

Prior to the advent of the Internet, advertising in games was limited to static, unchanging advertising placements in games that were dedicated to a single advertiser's products. Generally referred to as Advergaming, this approach is similar to the early days of radio and television when a program was frequently entirely sponsored by a single advertiser. Unchanging advertising in games is also referred to as Static Advertising.

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[1] http://idc.com/getdoc.jsp?containerId=prUS21304208

[2] http://www.emarketer.com/Reports/All/Emarketer_2000485.aspx?src=report1_home

A more recently introduced approach to using games for advertising is Dynamic Advertising, which allows an advertising network to insert a variety of different advertisements in and around games, utilizing the Internet and mobile network connections to deliver the ads in real time. This approach is similar to advertising predominantly in use on the Internet and in commercial television and radio, where the content (game, webpage or program) is not dedicated to one sponsor and the advertisements can be changed at will.

Advertising can be used in any genre of games and on virtually any delivery platform; game console, PC, handheld game, and mobile phone. However, as part of the Casual Games SIG White Paper, this section will focus on casual games for PC's, downloaded from or played on the Internet. It will address the two distinctly different approaches currently used by games to deliver advertising; Dynamic Advertising and custom-developed Advergames, which is also sometimes referred to as Static Advertising.

Overview of Ad Supported Web Games

by Alan Miller

Dynamic Advertising is a rapidly growing method of using games for advertising and promotion. This approach allows an advertising network to insert a variety of different advertisements into and around games, utilizing Internet and mobile network connections to deliver the ads in real time. This approach is similar to traditional Internet advertising and also similar to commercial television and radio, where the advertisements are not dedicated to any single sponsor and the advertisements can be changed at will.

There are two primary approaches to Dynamic Advertising; around-game and in-game. Around-game advertising refers to dynamically placed advertising that appears around game windows or is delivered as pre-game (pre-roll) or post-game advertising. This has been in use for several years by numerous Internet game portals. These ads have generally been provided by traditional Internet ad serving networks and are identical to other online ads provided by those networks.

In-game advertising is a more recent method of utilizing games in which advertising networks insert advertising messages into the game itself. Several in-game ad networks have been established over the last few years to provide advertising in this manner. They include Massive (acquired by Microsoft), AdscapeMedia (acquired by Google), IGN (acquired by News Corp), Double Fusion, IGA Worldwide, and others.

An even more recent innovation is the emergence of companies such as Mochi Media and NextEdge who provide more fully integrated services, which in addition to being an ad network, also include game development and game distribution tools and services.

Regardless of the source of the advertising, the general consensus in the industry is that Dynamic Advertising can and will co-exist in games that also contain Static Advertising and primary sponsorships, much like many televised sports events that have primary sponsorships and still carry 30-second commercials.

Display Advertising versus Direct Response Advertising

Game related advertising is generally either Display advertising, whose primary purpose is to create consumer brand awareness or increase consumer brand preference with no interaction on the part of the consumer, or Direct Response advertising, which explicitly solicits an immediate action by the consumer, such as "Buy now!"

In Display advertising, the money paid by advertisers to an ad network for the service of placing their ads is based on the number of consumer impressions multiplied by the basic rates that advertisers are willing to pay for making those impressions on the audience. This is usually expressed as Cost Per Thousand impressions or CPM. This is in contrast to "Direct Response" advertising, which only generates revenue when the consumer performs some explicit action. The basic rate advertisers are willing to pay for Direct Response advertising is referred to as Cost Per Click (CPC) or Cost Per Action (CPA), in both cases per thousand events.

Current CPM rates for Display advertising range from $0.50 to $20.00 or more. Generally, the ad network retains 20% to 40% of the total ad revenue.

Dynamic around-game ads are a combination of both of these types of advertising and reflect the general trends of Internet advertising. In contrast, virtually all dynamic in-game advertising is Display advertising and no immediate consumer action is solicited. However, as the industry evolves, Direct Response advertising might become more important for in-game advertising, which will necessitate serious consideration of how consumer advertising interaction is integrated into the game experience.

Consumer Acceptance and Contextual Relevance

It goes without saying that in order for a game to be a successful advertising vehicle, it must be entertaining. However, additional objectives must be achieved in order for a game to be a success at advertising. A game must also:

- Attract an audience
- Deliver an advertising message to the audience in a way that doesn't alienate the audience
- Provide various audience and game-play measurement metrics back to the ad network
- And ultimately change consumer awareness or cause the actions that the advertiser desires

Advertising in- and around-games will only be viable if it is done in a manner that does not alienate a significant portion of the potential audience.

A comparable situation regarding advertising exists in the television, radio, and movie industries. Movie ticket purchasers will usually tolerate some degree of commercial product placement in the actual entertainment experience. However, those ads must have some degree of relevance to the movie and blatant advertising for products is not tolerated. In contrast, commercial television and radio delivers blatant commercial messages every few minutes, but they are segregated from the entertainment content.

Around-game advertising is more akin to commercial television and radio. The ads do not directly impinge on the game experience and the contextual relevance or the blatant nature of the advertising is of little concern.

In-game advertising is more similar to the movie industry and the contextual relevance of advertising is of much greater importance. In several genres of non-casual games, such as sports and racing, in-game advertising frequently adds to the realism of the experience, since advertising is usually a significant factor in the real-world experience. For example, consider advertising banners around sports stadiums and brand logos on race cars.

However, that is frequently not the case with casual games. An interesting design challenge in casual games is to find a way for advertising to be acceptable to game players and at the same time to be an effective vehicle for advertisers.

Effectiveness Measurement and Metrics

Advertisers want proof of the effectiveness of their advertising expenditures. Common metrics include:

- Audience size
- Audience composition (demographic and psychographic)
- Frequency and duration of play sessions
- Aggregate amount of advertising impressions and average duration of ad impressions
- Ad recall rates
- Changes in game players brand awareness and preferences
- And ultimately changes in consumer behavior, such as making a purchase

Providing this information to advertisers is usually not the responsibility of the game developer or game publisher. However, technology frequently must be incorporated into games to allow measurement and reporting of some of these game play-specific metrics back to the ad network. Game developers should be generally aware of the importance of these metrics to advertisers, which are used as the basis for calculating how much advertising revenue an advertiser is willing to pay for their messages to be in or around a game.

Although industry standard ad formats and metrics are already available for most around-game advertising, dynamic in-game advertising is still in the early stages of development and standards are still evolving. For example, the industry is only now approaching agreement on the definition of what an "impression" consists of for in-game ads. And the evolution of generally accepted "standard ad units" for in-game advertising has far to go.

Governmental Regulation and Voluntary Industry Regulation

Many legal issues pertaining to advertising and privacy issues must be considered when using games for advertising. These issues are specialized and frequently complex and they are in a state of significant flux. Failure to comply can lead to regulatory fines, civil lawsuits and even criminal prosecution. For example, in 2007, Mrs. Fields Cookies paid civil penalties of $100,000 and Hershey paid civil penalties of $85,000 for violations of The Children's Online Privacy and Protection Act (COPPA).

Although the burden to ensure compliance with these legal issues appears to fall primarily on ad networks, Internet game portals and game publishers, it is still a good idea for game developers to be aware of these issues.

Some examples of governmental regulation include,

- The Children's Online Privacy and Protection Act (COPPA)
- State, Federal, and International Online Privacy Legislation
- General advertising law
- Contest and Sweepstakes Law
- Online Gambling Laws
- European Union Tobacco Advertising Directive

In additional to governmental regulation, several industries have adopted voluntary advertising regulations. Although without carrying the penalty of law, these regulations are generally in force and game developers, publishers, Internet portals, and advertisers should be aware of them.

Some examples of voluntary industry regulation include,

- Council of Better Business Bureaus' Children's Advertising Review Unit (CARU) (for kids under 12)
- Distilled Spirits Council of the United States (DISCUS) Code of Responsible Practices

Market and Audience for Ad-Supported Web Games

By Alan Miller, <get title and company>

In February 2008, interactive media analyst firm eMarketer issued their *Video Game Advertising* report[1], which describes the category as an "exciting, fast-moving, multi-channel and exploding new advertising medium." eMarketer estimated that 2007 game-related advertising in the U.S. totaled $502 million. Of that amount, $207 million was spent on dedicated Advergames (see section above). The remaining $295 million was spent on "static ads, dynamic ads, product placements, game portal display ads, and sponsored sessions in console-based, PC-based, and Web-based games." eMarketer projects that each of these two areas will more than double over the next five years and that annual game-related ad spending in the U.S. will exceed $1 billion in 2012.

Another analyst firm, Interpret LLC, which specializes in game-related advertising measurement, stated in their March 2008 *Casual Gaming & Advertising 2007 Review*[2] that projections for 2010 U.S. spending for in- and around-game advertising are in the range of $400 - $700 million.

Many individuals involved with dynamic advertising in games believe that eventually, like television, any audience can be of interest and value to advertisers. Some advertisers want to reach a broad general audience. Some advertisers want to reach very narrowly defined audiences. Generally speaking, more specifically defined audiences command higher prices in terms of Cost Per Thousand impressions (CPM).

Despite the potential for broad target audiences, at this point in the early stage of dynamic advertising, two audiences are primarily being addressed; the casual games audience, mostly with around-game dynamic advertising on major Internet game portals, and, secondly, the hardcore male gamer audience, mostly with in-game advertising in console and PC sports and driving games. This White Paper focuses on the casual game audience.

According to Interpret LLC, the casual game audience is an attractive target for advertisers. "As Matt Story, Director at Denuo Play put it 'We view games as a highly targeted medium. The great thing about games is the targeting based on platform and type of game. The ability to reach your consumer via a targeted message is attractive to our clients.'

According to Interpret LLC's research, "Casual games reach a unique audience, especially when focusing on those that actively play. They are highly motivated when it comes to finding information on products they're interested in. The ability to engage them in a relevant media vehicle, where they spend an average of 4 hours a week, can enforce a brand message or further their knowledge of brands. Active casual gamers are 22% more likely than the general population to seek out information about new products, but are also 36% more likely to switch brands just for the sake of change. These characteristics make them a potential envoy for launching brands, and open to switching away to a competitive brand.

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[1] http://www.emarketer.com/Reports/All/Emarketer_2000485.aspx?src=report1_home

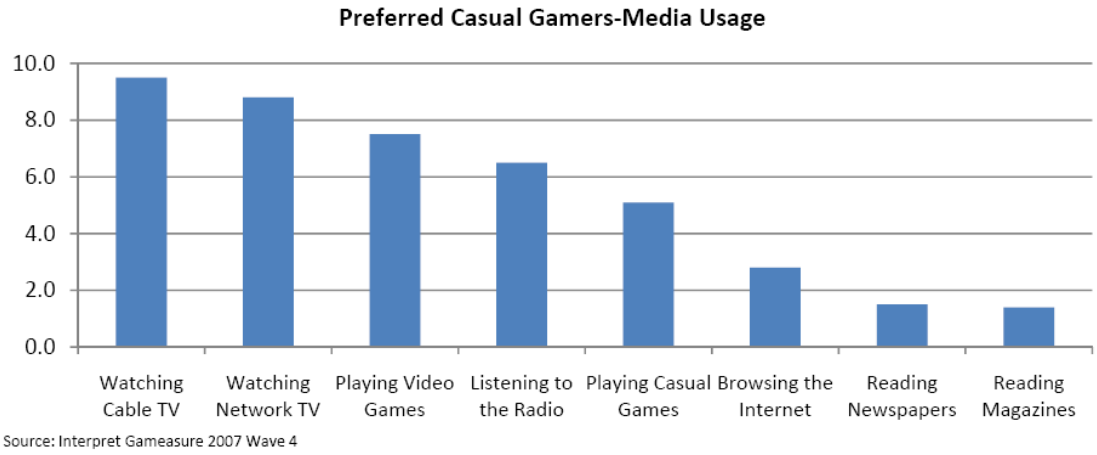
[2] http://www.interpretllc.com/Interpret_PDF/Interpret_Casual_Gaming_White_Paper.pdf

"In an average week casual gamers make 2.7 online purchases, slightly more than the general population (2.4 per week). Considering their likeliness to try new brands and willingness to seek out information about new products, they are a key target audience to advertisers. But it's the size of the casual gaming audience that may be most appealing.

"In 2007 casual games reached over 145 million people aged 12-65, and of those over 71 million play casual games 1 or more hours per week. Additionally, casual games are not the only games that appeal to this audience, with 58% of them having played other non-casual games either on a PC, console, or handheld gaming system."

"The size of the casual gaming audience encourages some advertising investment, but in today's market 'size matters not.' Engagement has become a key evaluation metric to advertisers, and some of the allure with casual gamers generates from their growing engagement with games. For those that prefer the genre, the average time spent per week playing casual games increased 28% (4.0 hours to 5.1 hours) from 3Q'07 to 4Q'07. Time spent with casual games already surpasses magazines, newspapers, and other activities on the Internet.

"At the same time this audience is also becoming harder to reach through mainstream media. As of 4Q'07 27% of casual gamers typically watch their favorite shows recorded with a DVR. Additionally casual gamers, and in particular active casual gamers, are more likely to use new media when compared to the general population.



Interpret LLC has also conducted research on the reaction of the casual game audience to advertising. They conclude, "At the same time advertising has been welcomed by casual gamers. The strong majority of casual gamers, 85%, would prefer free ad-supported games over paying for downloads. In a media world where audiences are becoming harder to reach, and consumers are gaining more control over the ads they come in contact with, casual games deliver a sought out, ad-supported product to an engaged and active consumer."

As interactive entertainment continues to garner an ever larger portion of consumers' media time, and the use of games for advertising grows and evolves, it appears inevitable that virtually all audiences will become viable and attractive targets for advertisers.

Business Models for Ad-Supported Web Games

By Alok Kerjiwal, <get title and company>

The ad supported online games business has the following revenue streams available to it today:

1. The emergence of high quality ad networks that help monetize traffic on websites

A significant number of online advertising networks today are available for portal owners to place simple advertising code on their websites that automatically serve the best available advertisements that are relevant to the audience visiting that website. This results in a constant source of revenue for the operator of the website. Simultaneously becoming popular are the monster networks of networks (or an network that manage many other networks) whose business it is to better the advertising yield to the publisher by intelligently choosing the correct advertising network to deliver ads basis specific page requests. How do these networks manage the same? Their algorithms understand country specific and genre specific performance of various ad networks and route the best ads to a website on the basis of that websites target audience and geo location.

a) Specialist advertising networks for ad supported games only

New advertising networks that specialize only to help monetize in-game advertising are also giving a good support to the growth of ad supported games. These networks work very closely with brand advertisers and their agencies are able to deliver relevant advertisements into games that best suit the gamer. Given that many brands targeting young audiences find gaming to be one of the ideals platform for communication, and with ad units in-game resulting superior results, these ad networks are able to significantly improve the yields to individual game developers and specially those who may not have their own game portals.

b) Flat license fees or sponsorship for games

The larger portals that operate ad supported games typically pay put lump sum license fees to game developers for hosting their games on their site. These portals in turn generate revenue by advertising revenues on their portals and via in-game advertising. By paying out a fixed license fees, it's a quasi way of sharing advertising revenue with individual game developers in a far more structured and manageable manner.

c) Social Media Gaming Opportunities

Large Social Media websites have open API's that allow game developers to create game applications and widgets for these social networking sites (SNS). The game developers can leverage their creativity of their games and snyc them with the large consumer traffic available on these SNS sites to create advertising revenue for themselves by placing ad units on these gaming applications that consumers install on their pages and typically send to their friends to invite them to play and challenge. The SNS website owners benefit by high quality apps and content constantly being added to their platforms, while the game developers monetize their creativity without investing in platform creation or traffic aggregation

Snap Shot of how ad supported games have evolved

Past	Present	Immediate Future
Direct efforts by the game developer required to sell advertising	Advertising Networks take over the job	Network of Networks dominate and improve yields by very superior targeting
No Game Advertising Network available	In Game advertising Networks specialists in operation	In Game advertising networks get specialized basis target audiences and geo locations
Social Media Networks non	Social Media websites offer traffic and platform - game	Social Media websites create very effective in-network

existent	developers free to operate their games and monetize	advertising opportunities that the game developer just signs up with

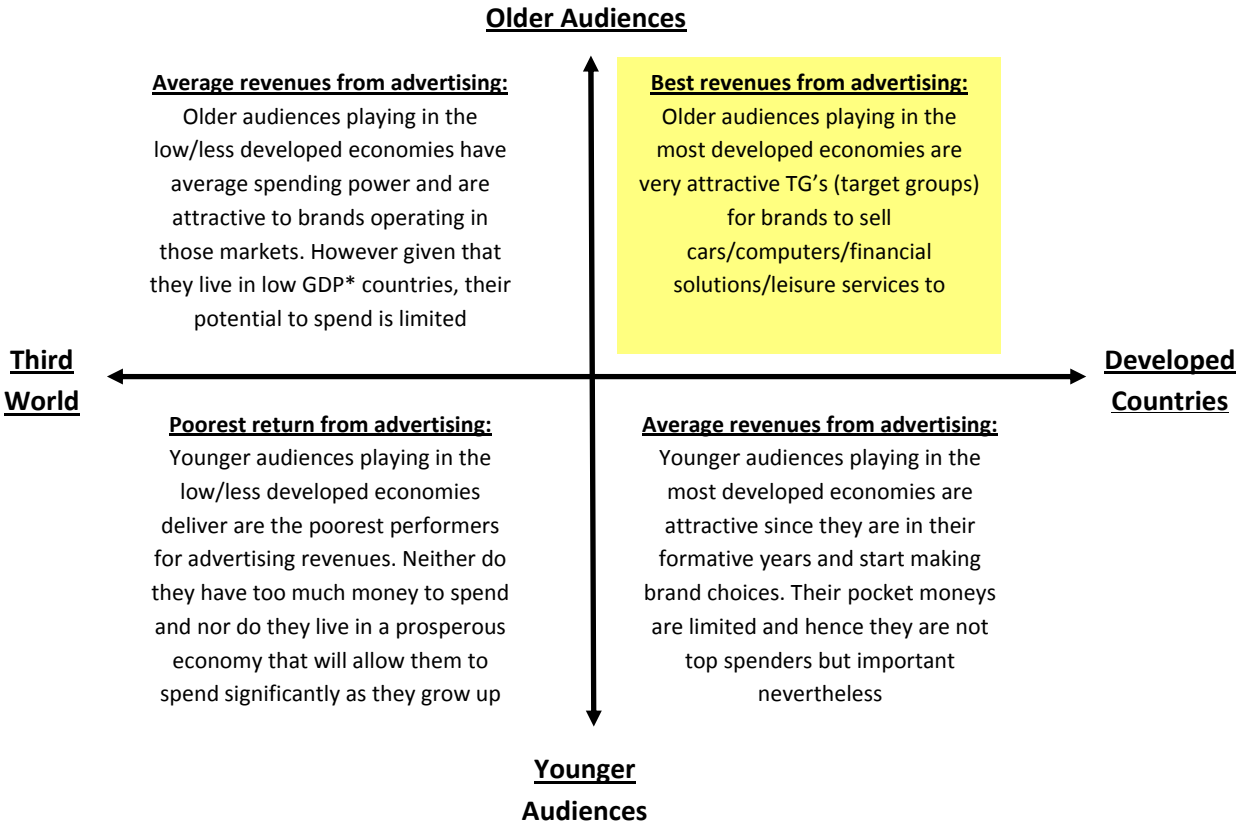
Where is the money and who gets what?

Background:

As brands move their advertising to the online space in search for interactive engagement with their specific audiences, online games and the environment they are hosted in become valuable advertising platforms.

Who and where do the best advertising values lie?

In the context of online advertising the following matrix would be a simple template to consider when calculating potential revenue streams

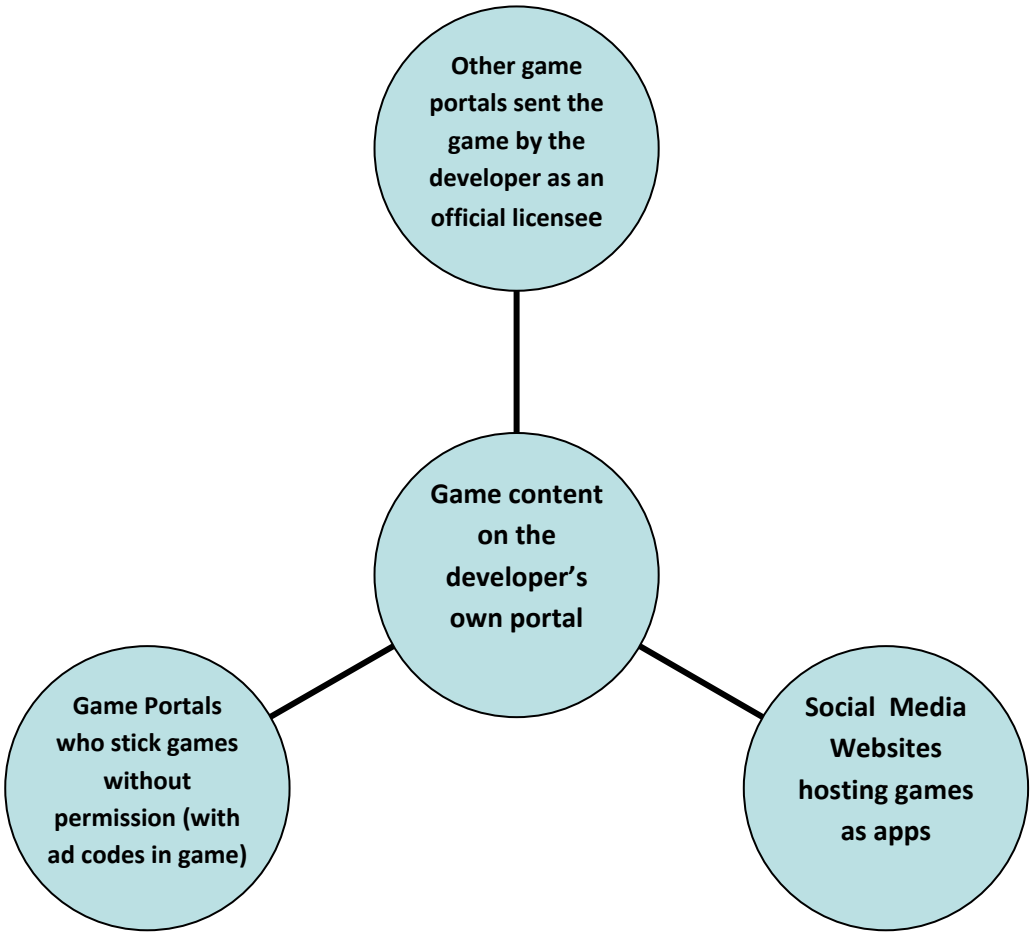


* GDP – Gross domestic product – a simple measure of a country's wealth

Where can games be distributed to generate revenues?

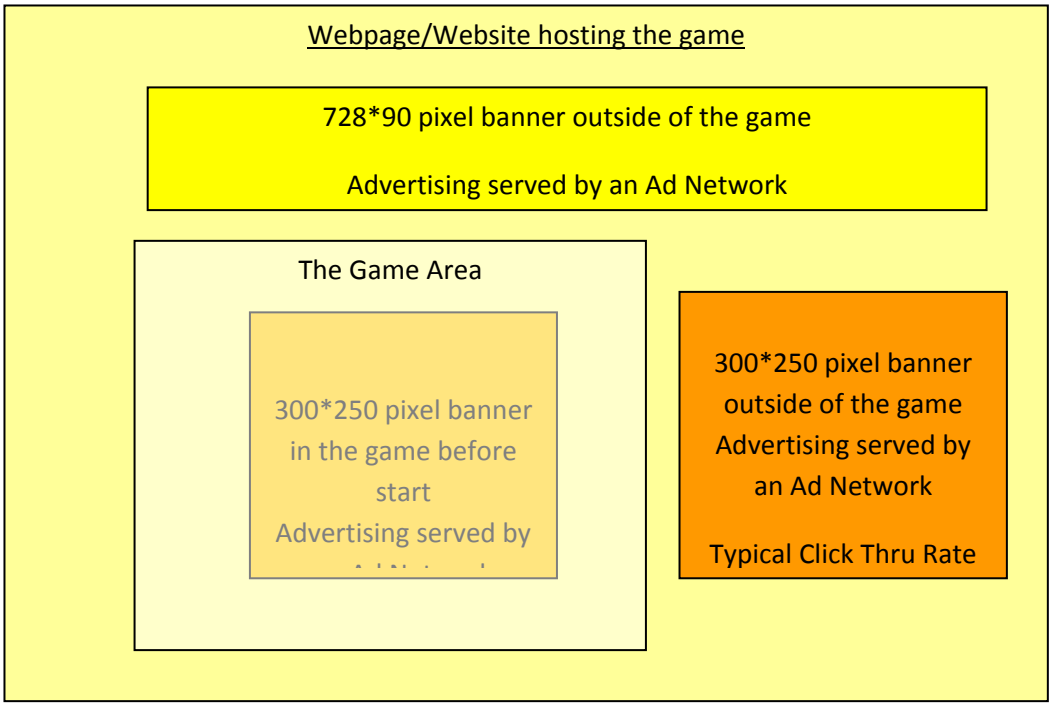
The answer is – as many places possible. As long as the game is not a proprietary development for a specific website, the larger and wider the games distributed, the better the revenues the games can generate

Illustration of where games can be distributed



Where in and around the game is the advertising placed?

The illustration below showcases a typical web page hosting an ad supported game and the advertising units typically placed in and around the game. Of course layouts and ad units can differ, but its best to design the portal and game to support generally accepted and most popular ad unit sizes so that when you handshake your game and its ad units with ad networks, they simply plug in their pipeline into banners that are made as per industry standards



What earnings can be expected from games? Simulations below:

Banner Type	Poor (ordinary game, traffic from less developed countries)			Average (average game, traffic is a blend)			Good (good game, traffic from developed countries)		
	Views	ECPM US$*	Revenues US$	Views	ECPM US$*	Revenues US$	Views	ECPM US$*	Revenues US$
728*90 Top of page	500,000	0.20	100	1,000,000	0.35	350	1,500,000	0.50	750
300*250 Side of page	500,000	0.30	150	1,000,000	0.45	450	1,500,000	0.60	900
300*250 In game	500,000	0.75	375	1,000,000	1.00	1,000	1,500,000	1.50	2,250
Totals			**625$**		**Total**	**1,750$**		**Total**	**3,900$**

* ECPM – essentially is the revenue per 1000 banners sold. The rates mentioned above are net to the developer (the ad networks would typically retain 50-60% revenue from advertisers as their own shares)

Very clearly, the levers that would really generate handsome revenues for developers would be developing very sticky and popular games generating millions of game plays for mature audiences in developed markets. Also, once can assume that if the game is well made, its shelf life will be strong – hence resulting in *small long tail revenues*

especially since thousands of game portals lift games without the developer's permission and publish these games on their own individual websites. If the developer has embedded in-game ad codes in the original game, it will help monetize the content no matter where the game will travel.

Art History

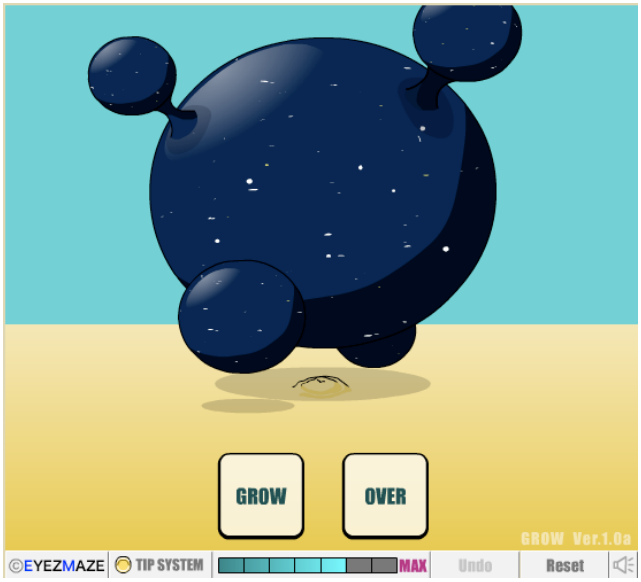
Even before the World Wide Web become popular, various kinds of videogames were played on the Internet. But the games were very technically oriented, as some of them were purely text based and required the player to remember a lot of different commands. Virtual-machine like technologies like Java, Shockwave, and Flash made game creation interactive and graphically rich. Sites such as classicgames.com and playsite.com started gathering players from around the world.

Classic Games (now Yahoo! Games) (1998-ongoing)

Back in 1998, Java's interactive capabilities were pretty basic. A few years later, and as Macromedia's Director and Flash became more popular, web sites like Orisinal started having more graphically rich games.

Orisinal (2001-ongoing)

The web became an experimental playground for game developers. Interactive media developers who had no background in game development,, began to create great game concepts. Eyemaze's Grow series is an example of a game that defined a new genre of games.

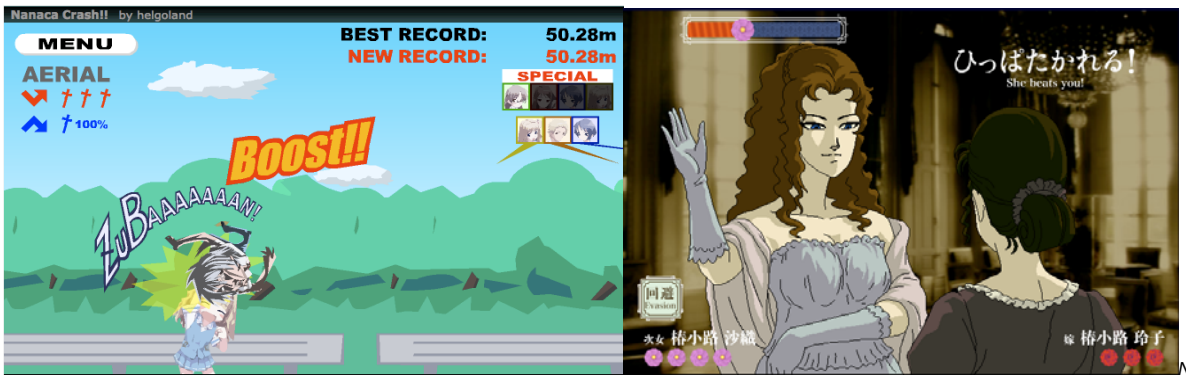


Grow (2004)

Some of these innovative developers expanded their reach to other platforms, thanks to their success on the web. In 2004, developers at Newgrounds.com created Alien Hominid, an action-arcade style of game that combined frantic action with original visuals. Microsoft then asked Newgrounds to create an Xbox version for their XBox Live Arcade Service. Other-examples of a web game developer who has transitioned to Console Game development is Metanet and their game N (later N+ on Xbox360), and ThatGameCompany with Flow (later on PS3).

From left to right, top to bottom: Alien Hominid (2004), N (2004), Flow (2006)

The Web Game themes were a departure from the common themes found in Console and PC games like Nanaca Crash and Rose and Camelia. In Nanaca Crash, the player's goal is to hit a person while riding a bike, and making person fly and bounce as far as possible. In Rose and Camelia, the player's goal is to slap her opponent in the face as much as possible to drain the opponent's energy.

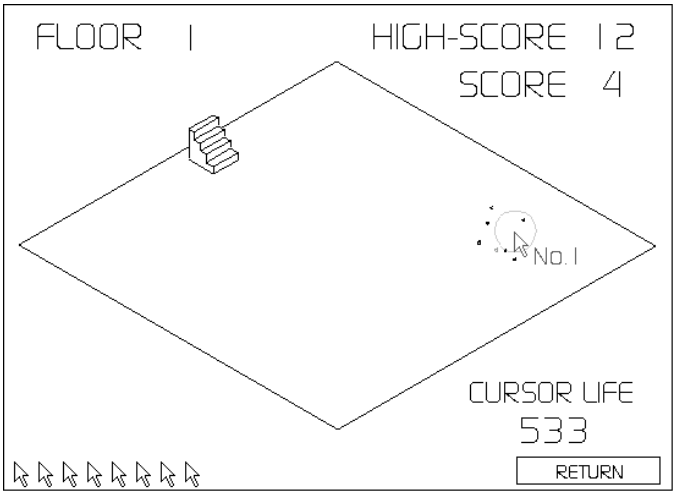


Nanaca Crash (2005) and Rose and Camelia (2007)

The simplicity and innovation of these games, combined with the fact that they were easily accessible, made it possible for a non-gamer to play on their computers, people who wouldn't bother to play these games if they would have to buy them. Two recent examples are Line Rider and Desktop Tower Defense. Line Rider is a web toy in which the player draws the shape of a hill with their mouse, and then lets a person with a bobsleigh go downhill through it. Line Rider has become such a popular game that McDonalds even used it for visuals in one of their commercials. And as Grow, Desktop Tower Defense has defined a new genre of games. Similar to a real-time strategy game, the player's goal in DTD is to build a set of of towers, and eliminate hordes of enemies.

Line Rider (2006) and Desktop Tower Defense (2007)

Today, the web the pervasive platform for gaming with the highest number of games released per year. In 2008, thousands of game titles appeared on popular portal sites like Miniclip, Addicting Games, and Kongregate. The low-barriers of entry and limited to no development restrictions on game types makes the web one of the most experimental video game platform.



Design Principles for Ad-Supported Web Games

by Juan Gril, Studio Manager, JoJu Games

Who plays these games?

While all kinds of people play games on the web, there are two groups of which most people who play web games can be identified with: the Escapists, and the Chit-Chatters.

A perfect example of an "escapist" type of player is an office worker who is bored at the office or a stay at home mom who wants to get a break in the evening. They might want to get out of their routine by getting short and accessible entertainment through a video game. The Escapist is severely time-constrained, so any experience that lasts for more than a few minutes may be just too much to take. The Escapist also needs an emotional boost. This is a person who is probably under stress or just wants to escape from the daily routine, so the theme of the game will play an important role.

Another category one might fit into are the "chit-chatter" types. In general, these are people who want to meet other people and socialize online. They are from all ages and backgrounds, a college student taking a break from his all-night studying, a housewife looking to connect with someone socially or a foreigner wanting to speak with others from a different country - all while playing a game.

A smaller group are the Competitors. These players tend to gather around head-to-head multiplayer games. Although they are smaller in the number of players compared to the rest of the web game audience, they spend a very high amount of time online.

Themes

A web game with a strong theme will have a much better chance of attracting the attention of -Chit-Chatters over other forms of media around them, and it will create a viral effect among the co-workers of the Escapist. Humor is a perfect example, and a reason why some of the most popular games on the web have a humoristic theme.

Using a theme based on current topics (i.e.: political events), or holidays also help.

Game Mechanics

In general, most of the game design rules applicable to casual games can be applied to ad-supported web games. However, the time a player is engaged in a match is less than a typical downloadable PC or console game. This gives players the flexibility of getting in and out of a game pretty quickly, regardless if they stay playing the game for hours.

The web audience's patience level is slim when learning a new game. It's very easy for a player to switch to a new game by clicking on a link plus there is usually limited time to play (i.e.: people who are at the office taking a coffee break). The mechanics should be seamless and intuitive and contain excellent game content which is key to retain players.

Presentation

The UI of your game-should be simple and concise. Try to display only necessary information in each screen. If your game needs a big UI to be played with, try to see if you can design an interface that contextually changes information based on the player needs at the time.

Have a simple “START!” button in the main menu, and then reveal UI elements as you need to. Think about revealing other parts of the interface as the player progresses in the game.

Level Design

Levels should be short and concise. The maximum time allocated per level should be 3 minutes. And make sure you support a way for the player to automatically save his progress. That way the player will be more likely to come back

to your game.

Multiplayer Match Design

Similarly to level design, the entire match should be short and concise. The most successful multiplayer web games have this criteria in common.

Good matchmaking tools are also important. Players should be able to come in and out of a game quickly, and ideally be able to play against players with the same level of experience. If an algorithm cannot be provided, then use a tool such as a rating point system to allow players to find each other quickly.

Asynchronous Gaming

Social networks have popularized a form of gaming that was used prior for hardcore turn-based game players. Asynchronous gaming started as a "Play by Mail" system where people in remote locations played against each other by mailing turn orders to opponents.

Social networks enable this game concept and lets you play against connected friends. In most cases, games on social networks have a simple leaderboard that lets you see who is the best among your friends or player group. As social networking continues to grow and become an integral part of a person's connectedness, communication and collaboration, games developed for those platforms will continue to rise.

Production Issues

by Juan Gril, Studio Manager, JoJu Games

Really short projects

In most cases, the production of an ad-supported web game is done in less than 3 months. Sometimes they are done in just a few weeks. It's key to build your tools effectively so you can iterate as fast as you can.

File Size

The file size of Ad-Supported Web Games has grown year over year, from 1.2 megs in 2002, to an average of 4 megs in 2008.

Today a web game can have additional content being loaded progressively in the background, so with clever caching and loading mechanisms, the size of the game can be much higher.

Performance Issues Across Different Computers

In most cases, the technology of choice for an Ad-Supported Web Game is Flash. Unfortunately, Flash has a lot of shortcomings. Flash frame rates are not guaranteed, therefore plan on using as less resources as possible to make sure that players will have a similar experience across the whole range of different computers out there. This means that you shouldn't try to use the newest capabilities that Flash provides, and just stick to using the proven and true parts of Flash that work across the board.

Accounts

To eliminate the hassle of creating multiple accounts, leveraging existing communities (E.g. Open Social) allow players

to register a game account quickly. Making the game compatible with a variety of social network platforms will also add value (see below).

Getting Your Game Out There

Games on social networks have been a huge success, so it is wise to think about the design of your game and see how can it fit on the different social networks. If your game design can work in asynchronous mode, it can be a good success in places such as Facebook, MySpace, etc. The developer's pages at those web sites have a lot of really good information about how to optimize your game for their service.

Lots of web sites are launching new games daily, and even paying licensing fees to use them. Make sure you spread your game on as many web sites as possible.

You can also use a service such as MochiBot to track where your game is being played at.

Major Companies Involved with Advertising and Games

By Michelle Lee, <get title and company>

Industry analysts

- eMarketer (www.emarketer.com)
- IDC (www.idc.com)
- Interpret Gameasure (www.gameasure.com)
- Parks Associates (www.parksassociates.com)
- Yankee Group (www.yankeegroup.com)

Audience Measurement and Metrics Providers

- Nielsen Games (www.neilsen.com/solutions/games.html)
- Interpret Gameasure (www.gameasure.com)
- comScore (www.comscore.com)

In-Game Dynamic Advertising Networks

- AdscapeMedia (acquired by Google) (www.google.com/intl/en/ads)
- Double Fusion (www.doublefusion.com)
- IGA Worldwide (www.igaworldwide.com)
- IGN (acquired by News Corp) (www.ign.com)
- Massive (acquired by Microsoft) (www.massiveincorporated.com)
- Mochi Media (www.mochimedia.com)
- NeoEdge Networks (www.neoedge.com)
- WildTangent (www.wildtangent.com)

Traditional Internet Advertising Networks

There are dozens of active Internet advertising networks that currently provide dynamic ads around game windows. With their existing relationships with advertisers, ad agencies, and media buying organizations, it seems inevitable that some of these traditional ad networks will also attempt to serve ads directly into games. Leading ad networks that reach more than 50% of US Internet users include:

- 24/7 Real Media (http://www.247realmedia.com/EN-US/)
- Adconion Media Group (www.adconion.com)
- ADSDAQ (ContextWeb) (http://exchange.contextweb.com)
- Burst Media (www.burstmedia.com)
- Casale Media (www.casalemedia.com)
- Collective Media (www.collective-media.com)
- Drive Performance Media (www.drivepm.com)
- interCLICK (www.interclick.com)
- Platform-A (Advertising.com) (http://www.advertising.com/about-us.php)
- Specific Media (www.specificmedia.com)
- Traffic Marketplace (www.trafficmp.com)
- Tribal Fusion (www.tribalfusion.com)
- ValueClick (www.valueclick.com)

Industry Associations

- Interactive Advertising Bureau (IAB), Games Committee (http://www.iab.net/member_center/35088) <check>
- Media Ratings Council (MRC) (http://www.mediaratingcouncil.org/)
- Entertainment Software Association (ESA) (www.theesa.com)
- International Game Developers Association, Advertising and Games SIG (www.igda.org)

Major Internet Game Portals

- AOL Games (http://games.aol.com)
- Kongregate (www.kongregate.com)
- Miniclip (www.miniclip.com)
- MSN Games (http://zone.msn.com)
- Pogo.com (Electronic Arts) (www.pogo.com)
- PopCap (www.popcap.com)
- RealArcade (RealNetworks) (www.realarcade.com)
- Shockwave (Viacom / MTV Networks) (www.shockwave.com)
- WildTangent (www.wildtangent.com)
- Yahoo! Games (http://games.yahoo.com)

Console Downloads

All articles by: Juan Gril, Studio Manager, JoJu Games; and Bryant Hornick, Student, UC Irvine

Art History of Console Downloads

Broadcasting Games

Even though console download services have received a lot of attention lately, the idea of distributing downloadable games to consoles is almost as old as game consoles themselves. In 1981 Mattel launched the PlayCable platform for the Intellivision console (1). The PlayCable service allowed cable operators to broadcast game code through television channels. Customers connected their PlayCable adapters to their Intellivision and their cable service, allowing them to "download" games to their console. In truth, the game code was broadcasted continuously -- the PlayCable just waited until the game code was broadcasted again from the beginning, download it, then install it on the adapter's memory (2). The Intellivision console then read it as a normal cartridge.

PlayCable adapter

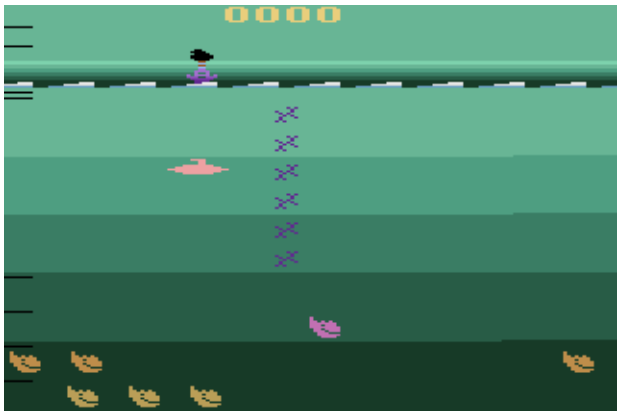
The service was successful for awhile, but it had a limitation of a maximum of 4K per game. By 1982 a lot of the Intellivision cartridges were 8 or 16K, and couldn't be supported by the service.

You've Got Games!

During the early eighties there was another company who decided to offer a downloadable game service as well. Their product name was GameLine(20), and they created a piece of hardware that fit into the Atari 2600 cartridge. The peripheral had a phone jack, and people would call, pay and download games that can only be player for a number of times. After the number of plays ran out players would have to call and pay again.

The company was called Control Video Corporation. They didn't survive the video game crash of 1983, but they decided to build another company called Quantum Computer Services. Later on that company will change their name to America Online.

Of all the games that GameLine had in its service, only one of them was developed exclusively for it. The name of it is Save The Whales(21):



The game that started it all

As PlayCable's games were all previously released as cartridges, we can say then that Save The Whales was the first console downloadable game in history.

And Then Came Sega

The public had to wait more than a decade in order to download games to their consoles again. Back in December of 1993, Sega launched a service for the Genesis called "Sega Channel." The service consisted of a cartridge that connected to the Sega Genesis; it had a coaxial connection that you had to connect to your cable TV socket.

Sega Channel Adapter

For a monthly fee of around $14.95 (US dollars), depending on location (3), you were able to download up to 50 games a month. A game would stay in your console until it was turned off. Sega Channel, at its peak, had roughly 250,000 subscribers in the United States.(3) It was also available in Australia, Canada, the UK, Argentina, and Chile. Sega Channel wasn't successful, because it arrived at the beginning of the decline of the Genesis. By December of 1994, the Sega Saturn was released in Japan, and the public didn't feel like supporting a service for a dying console.

Nintendo Was Looking At The Stars

In 1995 Nintendo launched Satellaview (4). This service was available in Japan only.

Satellaview Add-On

The service required that customers had a subscription with a satellite TV service provider. Players could download games and run them from the provided cartridge's memory. The Satellaview content was only broadcasted from 4:00PM to 7:00PM everyday. That was the only time when players could download games. Some games, bizarrely enough, couldn't be played outside of the scheduled broadcast time.

From left to right: BS F-Zero 2, BS Zelda, Radical Dreamers

The Services of Today

In late 2004 Microsoft unveiled the first downloadable service for consoles, accessed through the original Xbox's dashboard, using the Internet for connectivity (13). Xbox Live Arcade (XBLA) lets players download game demos and purchase full games online, similar to casual games download services on the PC. A year later, Microsoft revamped the service for the Xbox 360. Today XBLA is the service with the biggest breadth of content available for download on consoles.

Xbox Live

The PlayStation Network (PSN) was launched in March of 2007 and is accessible from the PlayStation 3 (PS3) Cross Media Bar (XMB). The download and buy service is called the PlayStation Store. As with XBLA, players can download game demos and purchase full games online. In February of 2008, at the Games Developers Conference, Sony announced that the PlayStation Store would be available for PlayStation Portable (PSP) this year.

PlayStation Store

WiiWare is the Nintendo Wii's downloadable game service. WiiWare was launched in March (Japan) and May of 2008 (US, Europe and Australia/New Zealand). Games are available for sale, but demos of the games are not available. Users who play a game for more than an hour can rate the game, and players can see the average rating results of any game.

WiiWare

A List of the Players in the Console Download Space

The following section contains the list of console download services currently available in the market.

Xbox Live Arcade (XBLA)
Platform: Xbox 360
Vendor: Microsoft

Countries Available: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, India, Ireland, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, Taiwan, United Kingdom, United States.

Features:

- DRM support. Trials can be feature locked.
- Trials/demos are required.
- Matchmaking support through Xbox Live.
- Voice Chat.
- Only 1-2 games released per week.
- 150MB file size limit.

Development Tools:

- Propietary Dev Kit
- XNA (6)
- Torque X (7)
- Gamebryo (12)

Xbox Live Community Games (XBLCG)
Platform: Xbox 360
Vendor: Microsoft

Countries Available: United States, Canda, United Kingdom, France, Italy, Spain.

Features:

- DRM support. Trials are time based.
- Trials/demos are required.
- Matchmaking support through Xbox Live.

Development Tools:

- Propietary Dev Kit
- XNA (6)
- Torque X (7)
- Gamebryo (12)

PlayStation Network (PSN) / PlayStation Store
Platform: PlayStation 3
Vendor: Sony

Countries Available: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, UAE, United Kingdom, United States.

Features:

- No DRM support, but demos are allowed (and encouraged).
- No matchmaking support, but developers can make multiplayer games if they provide their own or another party multiplayer platform.
- No limit of games released every week.
- There is no file size limit.

Development Tools:

- Propietary Dev Kit
- Phyre Engine (8)
- Gamebryo (12)

Platform: PSP
Vendor: Sony

Countries Available: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, UAE, United Kingdom, United States.

Features:

- Store only available from PC (PSP store coming in 2008).
- No matchmaking support, but developers can make multiplayer games if they provide their own or another party multiplayer platform.
- No limit of games released every week.
- 1.8GB file size limit.

Development Tools:

- Propietary Dev Kit
- Virtools (9)

WiiWare
Platform: Wii
Vendor: Nintendo

Countries Available: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, United Kingdom, United States.

Features:

- No trials allowed, but developers can provide videos of their games for players to download for free.
- Matchmaking support through Nintendo WiFi Connection.
- Asynchronous connections and push messaging through Wii Connect 24.
- 40MB file size limit.

Development Tools:

- Propietary Dev Kit
- Torque Twii (10)
- Virtools (11)
- Gamebryo (12)

The Market and Audience for Console Downloads

Who buys these games? Are they playing Bejeweled?

While Bejeweled is a popular game among console gamers, many other genres have achieved popularity in the downloadable console game space. Whereas traditional PC downloads have been ported to consoles such as Xbox 360, retro and action games have done really well on XBLA. A good indicator of the trends is Major Nelson's Live Arcade Top 10 Sales of 2007 (5):

Position	Game	Genre
1	TMNT 1989 Arcade	Action
2	Worms	Arcade
3	Castlevania: SOTN	Action
4	UNO	Card & Board
5	Bomberman LIVE	Action
6	3D Ultra Minigolf Adventures	Leisure Sports
7	Sonic The Hedgehog	Platformer
8	Pinball FX	Arcade
9	Geometry Wars Evolved	Action
10	Texas Hold 'em	Casino

The fact that the top three is composed of video game classics implies that consumers on XBLA are either veteran or current hardcore gamers. Interestingly enough, non-digital gaming classics such as UNO and Texas Hold'em are included on the list. This is probably because of the online, social multiplayer modes offered in these games.

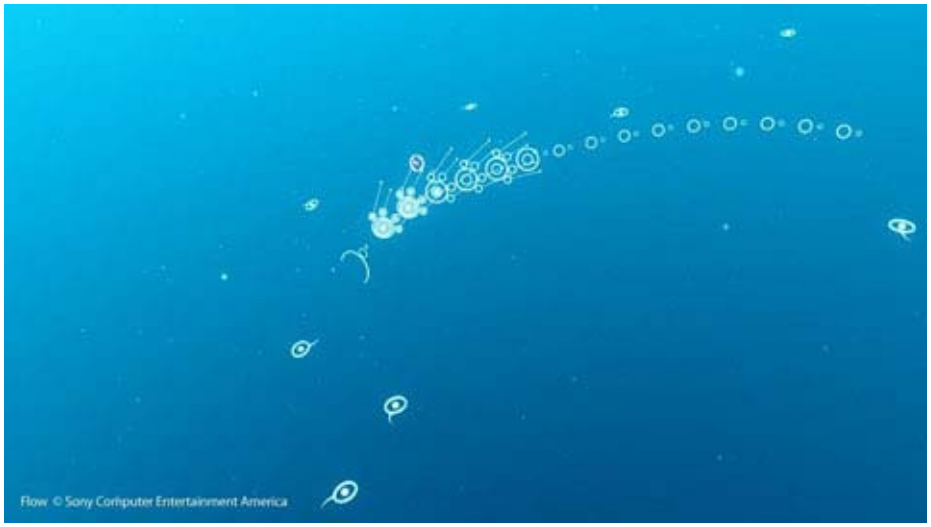
Uno

It seems that there is also a vein for independent or less mainstream experiences. Games such as Rez HD and N+ have had good commercial success on XBLA. (19)

On PS3, the types of games released is similar to the Xbox 360. Here is the list of top 10 sales on PSN in the year 2008(22):

Position	Game	Genre
1	Pain	Arcade
2	High Velocity Bowling	Leisure Sports
3	Super Stardust HD	Shoot'em Up
4	Pixeljunk Monsters	Strategy
5	Flow	Arcade
6	Warhawk	Action
7	Aquatopia	Screen Saver
8	Tekken 5	Fighter
9	High Stakes Poker Edition	Casino
10	Ratchet and Clank: Quest for Booty	Platform

Again, genres and game mechanics that are more appealing to hardcore gamers dominate the list. Interestingly enough, a lot of independent and original titles make up the list, as well, suggesting that the PS3 audience may be more open to new experiences. But this could be because the number of titles available at the time of this writing is significantly less than on XBLA. Time will tell.



Flow

On WiiWare's case, popular titles and genres seem to be more inline with the casual PC world. Here is the top 10 retrieved on January 22nd, 2009 (23):

Position	Game	Genre
1	World of Goo	Puzzle
2	Tetris Party	Puzzle
3	My Aquarium	Screen Saver
4	Cue Sports	Leisure Sports
5	Sandy Beach	Simulation
6	Fun! Fun! Minigolf	Leisure Sports
7	Dr Mario Online Rx	Puzzle
8	Target Toss Pro: Bags	Leisure Sports
9	Brain Challenge	Puzzle
10	Midnight Bowling	Leisure Sports

One big difference compared to the casual PC world is the fact that people like to play sports games. All of those games in the top 10 allow multiple players to compete against each other, something that makes a lot of sense as the Wii is a family oriented console.

Xbox Live Community games is a really too new of a service for us to make an evaluation of which types of games are successful.

The PSP store is just recently available from the device. Unfortunately, too few titles are currently available to make

an analysis of what games will be successful on the console.

Gamer Demographics

Unfortunately, platform holders have been reluctant to release audience demographic information specific to their digital distribution stores. During GDC 2008, however, Sony senior developer relations account manager Chris Eden presented a small amount of statistical data describing PSN users. At that time, PSN had over 2.8 million registered users. Of those users, 92% were male, and 79% were between the ages of 18 and 34. It is unclear whether these statistics hold true for XBLA or Wiiware.

Business Models for Console Downloads

All prices in this section are determined in US dollars.

On Xbox 360

All games on XBLA are offered with a free demo, making it a standard try-and-buy business model. As a point of difference from PC downloads, most demos are featured-based -- not time based. This means that players can play as long as they wish, but they only have access to a subset of features. Players who purchase the game must make a small download after the payment to unlock the demo, giving them access to the full feature set. Initially a lot of games were sold at $5, but now most of the games are being sold at $10.

Some advergames have been put up in the service (Yaris by Toyota is a good example), and those games are offered for free. The terms for those games vary, and it's best to contact Microsoft to find more details.

On PS3

The PlayStation Store operates mostly by direct purchase, as Sony's DRM doesn't support try-and-buy. However, Sony has encouraged developers at GDC 2008 to develop demos of their games. Players will need to download the full game twice, but that's the only current solution for making available a free demo. At the time of this writing, PSN game prices have gone across the board:

- Interactive toys (like screensavers and simple games for EyeToy) are sold mostly for $1.99.
- PS3 original downloadable games are sold from $2.99 to $12.99.

PSN supports add-ons for downloadable games, as well as retail games. At the time of this writing, there are a few downloadable games that are offering add-on packs. The prices for those add-ons range from $0.99 to $1.99. This model is a good way to develop additional content for a short game.

On Wii

Demos are not available on WiiWare, so players will have to purchase the game in order to be able to play it. Currently games have been offered from $5 to $15, and there are some games where players can purchase additional items or scenarios.

On PSP

In terms of possibilities, the PSP store is offering the same business model as the PS3. At the time of this writing, the game prices range from $5.99 to $19.99. Most of the games are downloadable versions of retail games, though.

Newer, downloadable only games are closer to $7.99 in price.

Sony has an interesting experiment with Ape Quest. Ape Quest is an RPG that Sony offers for free. The free version contains a "feature demo" of the game. Players then can make the choice of buying one of the three available chapters of the game for $9.99 each, or buy the bundle of all three chapters for $19.99.

Specific Design Principles for Console Downloads

10 Foot Experience (Living Room Consoles)

At all times during the production of the game, you have to keep in mind that the player will look at the game from 10 feet away, and they may not have a 65 inch screen in their living room. Even today there are a lot of XBLA and PSN games with very tiny fonts and icons on the screen. What looks great on a developer's 21 inch computer monitor can often fail to work for a player sitting 10 feet away from a 32 inch TV. While it wouldn't be very effective to develop a game on a TV set, be sure to make a routine check of your latest build in front of a TV in a living room set up to make sure it's still playable.

Issues with TVs (Living Room Consoles)

Another important factor that must be considered when you take your game to a TV is overscan. Overscanning is the process by which a TV set crops the edges of the image to make sure the entire screen is filled. Not all TVs display the image in the same way. Conventions recommend you keep all action 5% away from the edges of the screen, and title screens 10% away from the edge of the screen (15). You also have to keep in mind that TVs have different resolutions and each console has support for various resolution formats. Supporting more than one resolution format means more testing, as you have to test every feature of the game in each different resolution formats supported. You may want to stick to one resolution if you have time or budget constraints.

Most console manufacturers are asking to support 16:9 (widescreen) monitors by default, but you need to support 4:3 monitors in some cases. Take that into consideration in your game and UI design.

Handheld Screen Sizes

At 480x272 pixels, there is not much room on the PSP screen. This was the problem many early PSP games had; since they were ports of living room consoles games, there was too much information or too much going on for the little screen, thus providing a subpar experience.

Handheld Use

It's also important to take into consideration in your design where this game is going to be played. PSP games can be played anywhere -- on the train, outdoors, in bed, etc. Games that require heavy coordination through the use of various buttons, or quick reflexes, may be a problem for that platform. One of the reasons why turn-based RPGs and strategy games are so successful on handheld consoles is because players can set their own pace while operating the game. Gameplay then can be interrupted by external factors without losing the match.

Another important factor to keep in mind is that handheld play is generally composed of short sessions. It is important to design a game with a set of achievable goals that can be completed in minutes. That way players can save their progress continuously and not have to replay a level because their play time was interrupted by external factors.

Controllers

Console controllers have many features game designers can use to create a game's control scheme. But it's important for casual games to simplify the interface and minimize the number of buttons necessary to perform in-game actions. Complex control schemes are hard for players to understand right away, often creating a high barrier to entry for casual gamers. Each current generation consoles has a controller with its own unique characteristics. A lot has been written about them, so it's not necessary for us to repeat it, but for each controller you should keep these things in mind:

Xbox 360 Controller: The left analog stick is used most commonly to control movement and navigation, whereas the A,B,X, and Y buttons are tied to actions. There are four buttons on the top of the controller, and two of them are analog triggers. The d-pad has a reputation for being unresponsive and imprecise, although it's suitable for navigating menus (or a grid-based turn-based game). Remember, though, that not all buttons need to be used. The 360 controller also supports rumble/controller vibration.

PS3 Controller: The PS3 SIXAXIS controller is similar to the Xbox 360 controller in terms of button layout. As an added plus, the SIXAXIS controller features accelerometers inside which senses rotations and gestures made by the player. Because of the shape of the controller it may not be that comfortable to swing around, but racing and flying games have been done successfully with it. While the SIXAXIS lacks rumble functionality, the DualShock 3, which has since replaced SIXAXIS as of April 2008, does feature rumble.

Wii Controller: The Wii remote is significantly different from the 360 and PS3 controllers. The Wii remote, as the name suggests, is shaped like a small television remote. It can be held in one hand, like a TV remote, or in two hands when rotated sideways. The controller features motion-sensing accelerometers as well as positional infrared technology which detects the distance and angle of the remote relative to the television screen. Most casual gamers are getting accustomed to swinging the controller and pointing it towards the screen; as a game designer you may want to consider these conventional approaches to controlling Wii games. Because most players are accustomed to grabbing the controller and holding it like a remote, the A and B buttons are both easily accessible. Games that make the use of the Nunchuk controller extension don't seem to be as popular as those that use just the Wii remote.

PSP Controller: The use of analog controls on the PSP has been very successful in many games. Generally, the use of the analog control is the same as the d-pad. To keep the game casual, your best bet is to have the d-pad react the same way as the analog controller, and use one or two buttons. More buttons can be used, but be sure to keep the control scheme as simple and intuitive as possible. Keep in mind that, depending on where the player is playing the game, it may not be comfortable to be managing too many buttons at the same time.

Designing for Achievements

Achievements are badges that players keep in their profile. Achievements are awarded when a player completes a game-specific goal. This feature is very important on Xbox 360. Today every game released for Xbox 360 has

achievements in it; a single game can award up to 1,000 achievement points. They have became so popular that some gamers just buy games to unlock their achievements and grow their Gamerscore -- the total number of achievement points earned by the player.

It's important that you don't leave the design of Achievements in your game for the end of the production. Achievements for most gamers a secondary set of objectives in a game and they are rewarding when obtained. If they are well designed, they will add more life to a game that can probably be ended in just a few hours, hence giving the players more value for their money.

Currently achievements and gamerscores are specific to the Xbox 360. However, Sony has announced a similar initiative for the PS3. As part of PlayStation Home, a virtual world for PSN users, players have access to their personal Hall of Fame. The Hall of Fame includes a Trophy Room that displays all of the trophies (the PlayStation-equivalent of achievements) the player has won in various games. PlayStation Home, along with the trophy functionality, is still under development (18).

Production Issues

Developing a console game has a higher level of requirements compared to the development of downloadable games on a PC. Here are some of the issues to keep in mind.

3D Engines

Most games can be prototyped pretty easily when working in 2D. However, as most seasoned 3D developers will tell you, even if you use an existing 3D engine, you will need to develop a development framework or additional engine infrastructure that is specific to the game mechanic you are trying to implement. Whereas in 2D you could build a prototype of a platform game or a puzzle game with an existing development framework, working in 3D requires that you a) learn the engine, and b) customize it for your needs. You need to allocate more time for development of the customization of your engine prior to the start of a prototype.

Controller

If you are going to use special features of the controller (e.g., the motion-sensing capabilities of the Wii remote and PS3 SIXAXIS), you need to allocate time to develop the technology to read the player's gestures. The API provided by the console manufacturer may be too general and not provide your exact needs. You will have to make a lot of tests with subjects of different ages and sizes to determine all the different ways players will perform a given gesture. That will take a significant amount of development time.

Team

Your team is likely to grow during the development process. 3D models and animations take significantly longer time to produce. You are going to need twice the amount of artists at least. And if you produce console games on a regular basis, you may need to re-organize your company as if you have fixed size teams you'll have a lot of people idle during some parts of the development process.

Here is an example of what amount of people you may need as the project progresses:

Month	Resources	Description
1	1 programmer	You are developing the development framework you need to build the game.
2	1 programmer	
3	**part-time producer/game designer** 1 programmer **1 artist**	You start prototyping.
4	part-time producer/game designer 1 programmer 1 artist	
5	part-time producer/game designer 1 programmer **2 artists**	You need an additional artist to build props.
6	part-time producer/game designer 1 programmer 2 artists	
7	part-time producer/game designer **2 programmers** 2 artists **part-time level designer**	Online game feature development starts. Full production of levels.
8	part-time producer/game designer 2 programmers 2 artists part-time level designer	
9	part-time producer/game designer 2 programmers 2 artists **full-time level designer**	Lots of gameplay testing and tweaks made to the game. QA Testers get involved.
10	part-time producer/game designer 2 programmers **1 artist** full-time level designer	One less artist needed, as most art is done.
11	part-time producer/game designer 2 programmers 1 artist full-time level designer	
12	part-time producer/game designer 2 programmers **0 artist** full-time level designer	Bug fixing, so artist is not needed anymore.

Online Support

Most console games have at least some kind of online support. If your game will support online play, you need to allocate a significant amount of time for debugging. Because of the nature of

how networks behave, there are many scenarios that will cause your program to crash because of network issues if you don't anticipate them. Your first pass developing the online play feature will take a few weeks, but schedule about two to three times that just for debugging and bug fixing.

With XBLA and WiiWare, you'll be using their matchmaking service (XBox Live in XBLA, WiFi Connection in WiiWare). However with PSN you need to bring your own matchmaking service.

QA

Some console manufacturers will not put your game up if it wasn't thoroughly tested by QA experts. Even if they don't require it, and especially if you have online play support, it's best to plan your budget so you can hire a professional team who can test every little detail of your game and make sure that it's as close to being bug free as possible.

Then they will take the game under their own certification process. You need to plan significant time for QA. Bugs will not just be a problem at this point. The console manufacturer may reject games based on visuals or sounds that don't comply with their guidelines for example.

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Skill games

Entire section by Steve Meretzky, VP of Game Design, YouPlusPlus

Overview

Skill games, or **skill-based games**, refers to online games offered up as tournaments. Players pay a cash entry fee to enter a tournament, and the player with the highest score wins a cash (or cash-equivalent) prize. In larger tournaments, the prize may be split among multiple players. The skill games provider makes money by collecting a percentage of each player's entry fee in exchange for hosting the games, matching up players, and furnishing a prize (or prizes) of lesser value than the total amount collected in entry fees.

The term *skill games* emphasizes the fact that achieving a high score requires skill, as opposed to random chance or luck. This is an important distinction because tournaments based on luck or random chance are illegal in many jurisdictions.

Skill game providers have adopted certain accommodations to avoid legal conflict. Tournament outcomes are based substantially on the player's ability and performance.. Furthermore, skill games providers act as impartial tournament hosts with no vested interest in the outcome of each competition. Players always compete against one another, and never against "the house." Even with these accommodations, skill games are not legal in every state and every country.

Although their brief playing times makes casual games particularly suitable for the skill games model, there is nothing preventing hard core games from also being offered in similar online tournaments. However, as of May 2008 all economically successful skill game sites have been those that offer casual games as the basis of their tournament offerings. Several companies have attempted to use the same economic model with hard core game offerings, such as first-person shooters, but have failed and subsequently shut down. A 2008 addition to the space, SkillGround, is currently offering online cash tournaments for fairly hard core games in the sports and shooter categories, but it is too soon to know if this company will break through the hard core barrier.

Skill gaming is not an area favorable to innovative design. Instead, the most successful skill games have generally been direct ports of already popular casual games, such as *Bejeweled* and *Luxor*; or clones of familiar games, such as WorldWinner's *SwapIt!*; or games that make use of popular board game or TV game show intellectual property (IP), such as WorldWinner's *Family Feud®* and *SCRABBLE Cubes®*.

There are two reasons for this. First, players are more likely to pay to enter contests based on familiar games with which they are already convinced of their playing ability. Second, successful skill games require a critical mass of players, so that tournaments fill up and close reasonably

quickly, and so that ranking systems can more successfully group players within a narrow skill range. A new game with unfamiliar gameplay may suffer from a low number of players during the crucial first few days after launch, and never achieve this necessary critical mass.

History

The skill games model first appeared around 2000. As with the overall casual game resurgence of the 1990s, the emergence of skill games was led by the classic solitaire card game *Klondike*.

Two of the earliest contenders in the space were WorldWinner, which offered an array of casual games led by the highly successful *Solitaire Rush*, and SkillJam Technologies, which started as a music trivia site, but quickly began emulating WorldWinner's line-up of games.

As the market for skill games grew, both companies cloned familiar casual card, word, and match-three games. They both also licensed existing IP, with WorldWinner forming deals with Fresh Games (*Cubis*, *Word Mojo*) and Mumbo Jumbo (*Luxor*), and SkillJam inking a deal with PopCap to bring skill game versions of titles including *Bejeweled* and *Chuzzle* to SkillJam's site.

A third major player emerged in 2003, in the form of a U.K.-based company called Midasplayer. These "big three" skill game sites fought for players and partnerships, driving up the price of deals to the detriment of the profitability of all three companies.

In 2004, FUN Technologies, a Canadian company, acquired SkillJam. Two years later, FUN acquired WorldWinner, and subsequently merged the two sites under the WorldWinner banner. FUN is now wholly-owned by U.S.-based Liberty Media. In the meantime, Midasplayer, still privately held, has re-branded itself as King.com.

Most of the smaller players at this time either went out of business or changed their focus to other business models. At the end of this period of consolidation, the worldwide skill games business was dominated by Liberty-owned WorldWinner (www.worldwinner.com), King (www.king.com) and Germany's GameDuell (www.gameduell.de). According to Screen Digest, by 2006 these three vendors held a 76 percent share of the skill games market.

Audience

The audience for skill games is remarkably similar to that of the classic casual game demographic: adults in their thirties and forties, about two-thirds women. This is the typical demographic for players of the types of games offered by skill game sites, and the tournament model apparently has very little impact on the shape of the demographic.

Many companies have attempted to broaden the demographic with more male-oriented offerings, such as military-themed action games, golf games, or fantasy sports. Through 2008, these attempts have not been fruitful. Some industry experts believe that there are not enough players on these niche skill game sites to create the critical mass needed to support these games. Possibly these games have never been tried long enough, with enough variety of content, or with enough marketing effort behind them to attract the younger, more male audience.

Business overview

Business model

The skill games economic model involves players paying a cash entry fee to enter a tournament and play a game. The tournament can be as small as two players, or as large as thousands of players. A player's score is posted on a leader board (see screenshot below), and the winner (or, in larger tournaments, winners) gets a cash or merchandise prize.

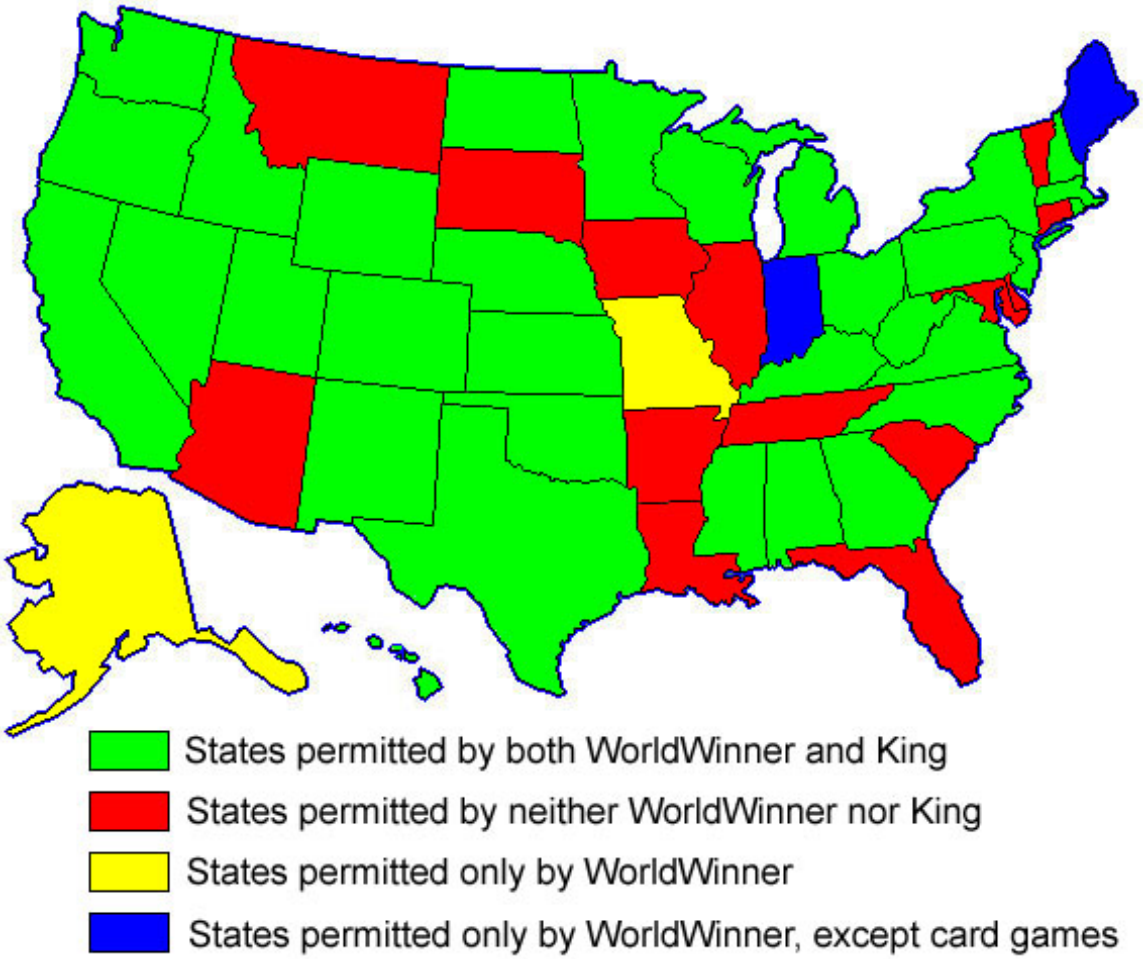
The tournament provider makes money by keeping a portion of the cumulative entry fees, rather than returning all the entry fees as prizes.

Example 1:
Tournament size: 5 players
Entry fee: $1.00
Cumulative entry fees: 5 x $1.00 = $5.00
Prize(s): $4.00 for first place
Tournament provider's revenue: $5.00 - $4.00 = $1.00

Example 2:
Tournament size: 10 players
Entry fee: $1.50
Cumulative entry fees: 10 x $1.50 = $15.00
Prize(s): $8.00 for first place, $4.00 for second place
Tournament provider's revenue: $15.00 - $12.00 = $3.00

Legality by jurisdiction

In order to be legal, the outcome of the games must be substantially skill-based, rather than relying on luck or chance. However, the laws governing skill-based games in the U.S. are on a state-level; there is no applicable federal statute. Even with scoring based on factors of skill rather than luck, skill-based games are not legal in every state. The exact states where skill-based games are proscribed vary from provider to provider, based on the readings of each state's law by their respective legal counsels; see the map below.



(WorldWinner's legal experts have interpreted the Maine and Indiana state laws as treating skill games involving cards differently from other skill games.)

The international picture is a similar patchwork quilt of legality, further complicated by rampant credit card fraud in certain countries. Skill game companies tend to avoid offering their services in these countries. For example, as of 2008, WorldWinner does not allow players from the following countries to create accounts:

- Afghanistan
- Bulgaria
- Egypt
- Indonesia
- Lithuania
- Macedonia
- Malaysia
- Nigeria
- Pakistan
- Romania
- Russia
- Turkey
- Ukraine
- Vietnam
- Yugoslavia

Market size

There is a dearth of accurate market data publicized on this nascent and closely-held industry. According to the *Casual Games Market Report 2007*[18], 200 million people play casual games online each month over the Internet. The report also estimates the casual games industry to be a $2.25 billion market, reflecting 20 percent year-over-year growth. As a subset of the casual games industry, Screen Digest estimated consumer spending on skill games at $315 million in 2006; a 50 percent increase over 2005.

Although still not widely known, skill games are increasingly popular, based on the sector's revenue growth. Major skill game companies are beginning to broaden their marketing efforts, but arguably the biggest contributors to this increased consumer awareness have been mainstream casual games portals, which have developed an appreciation for the skill games business model and transcended their initial regulatory concerns. As of May 2008, the network

[18] The Casual Games Market Report 2007, © 2007 Casual Games Association. www.casualgamesassociation.org

of portals partnering with at least one skill game service provider includes Yahoo, AOL, Pogo, MSN, Lycos, RealNetworks, Shockwave and Miniclip. Most have exclusive relationships with a single skill game provider, and partnerships with unaligned portals are keenly sought after by skill game companies.

Player conversion

The typical way of monetizing a player on a skill games site is to encourage him or her to create an account and make a deposit of US$5 to $20 using an online payment method such as a credit card or PayPal. Entry fees for entering a tournament are then withdrawn from this account, and any cash prize-winnings are credited to this account and can be withdrawn at any time. If funds run low, the player can make additional deposits.

Most sites offer a period of free play to let new players become familiar with the games and the site before converting them to paying members. Skill game companies have tried a variety of techniques to spur free players to make an initial deposit and become members, such as limiting the number of game titles these free players have access to, limiting the content within available games (such as the number of shuffles in a card game or the number of questions in a trivia game), or by simply cutting players off after a predetermined amount of time. In addition, skill game companies have explored other ways to monetize players who do not participate in cash tournaments, such as displaying advertisements alongside their games.

New business opportunities

Because of the importance of a critical mass of players to the tournament model, and because all the major portals where casual gamers congregate on the Web are already partnering with at least one of the leading skill game companies, new skill game providers face significant barriers to entering this market. However, there are still several business opportunities within the skill games space.

A business interested in generating revenue from the skill games space might:

- Become an affiliated site – If a business has a Website, particularly one trafficked by casual game players or a similar demographic, that business can partner with a skill game provider. Site visitors would be enticed by a link or links to games on the skill game provider's site. For each player sent to the provider's site who became a paying customer, the business that directed that player to the skill game site would get a revenue share on that player's lifetime spending on tournament entry fees.
- License intellectual property – If a business owns a successful casual game brand, that business could partner with a skill game provider to create a skill game version. The development work of creating this special skill game version may be done by the business that owns the intellectual property, by an internal team at the skill game provider, or by a third-party developer. Once the game is live and earning money from

tournaments, the owner of the game brand would share a portion of the game's skill-based revenue stream.

- Provide third-party development – Although much of the development work so far for skill game offerings has been done internally by the skill game providers, there are opportunities for work by outside developers, and these opportunities may expand as the skill game market expands.

Design principles of successful skill games

- Outcome not based on luck – In order to be legal in most states, a player's score in a skill game must be substantially based on skill, and not on factors such as luck and randomness. Skill game creators have employed a variety of techniques to turn otherwise luck-based games into skill games. For example, in a game where the initial set-up of the game would have a huge impact on the scoring – such as the shuffle of cards in a card game – all players in a tournament could receive the same shuffle.
- Cheat-resistant – Because money is at stake based on the result of a tournament, the impetus to cheat in skill-based games is far higher than in other online game offerings. Skill games need to be designed and implemented in ways that make it impossible even for fairly technically-savvy players to cheat. Companies employ a variety of mostly proprietary techniques to foil and catch cheaters.
- Short-playing time – Experience has shown that games with a short playing time have generated the most money for skill game providers. The reason is that skill game revenues come from a relatively small number of players (relative to the entire population of casual game players on the web) who tend to play repeatedly. A short game length means a greater number of tournament entries per unit of time. This explains why chess – which seems like a natural fit for skill gaming – has not been economically successful, since it has a fairly long game length. Another piece of proof is the WorldWinner game *Brickout*, which was redesigned to shorten the playing time from about 15 minutes to about 3 minutes; revenue from the game thereafter increased more than tenfold.
- Highly replayable – Again, because skill games need to be played many times by each paying player to be commercially successful, the advantage goes to games whose design and/or amount of content makes them highly replayable without seeming repetitious. Examples of highly replayable games would be solitaire, in which the millions of potential card shuffles make the game different with each play; a Boggle-style game, in which the layout of the letters adds variety from play to play; or a jigsaw puzzle game, in which a large supply of different shaped pieces and images keeps players interested.
- Narrow scoring range – Players are mostly likely to keep playing in skill game tournaments when they believe they can win. So devising a scoring system for a game that keeps a fairly narrow margin between the most-skilled and least-skilled players will promote replayability and avoid discouraging newer, less-skilled players.

Player ranking

In order to give less skilled players a chance to win, successful skill game sites employ a ranking system of some type to match players of similar skill level into tournaments. Thus, very skilled

players play only against other very skilled players, players of moderate skill play only against other players of moderate skill, and so forth.

As explained earlier, the outcome of online cash competitions must be based primarily on skill, and not luck, to be legal. Thus, a player's score range in a certain game will tend to fall within a narrow band. If all players were allowed to compete in the same competitions, a handful of the best players would win every challenge. This would discourage the losing players from playing on the site, which would, in turn, hurt even the best players by narrowing the field of potential competitors.

Segregating players into groups by skill level is difficult. One issue is how to measure the skill of a player. If it is done by average score, a player can thwart the ranking system by deliberately scoring low in low-prize tournaments in order to easily win high-prize tournaments. To avoid this situation, ranking systems rely on complex formulas that take into account many factors, such as win-ratios, lifetime winnings, average scores, and number of cash competitions played.

Another issue that makes rankings difficult is how to handle new players. If new players start out at a middle rank, but are not very good, they will lose all of their initial competitions, get discouraged, and leave before the site has collected enough information to rank them more accurately. But if new players start out at a low rank, and are already skillful in the given game, they will dominate the competition until their rank adjusts to a more suitable level. The typical way to deal with this problem is to make a new player's rank much more volatile than a veteran player's rank, in order to move them more quickly to a suitable level. Another strategy is to prohibit beginner players from entering high-prize tournaments until their rank has been more solidly ascertained.

A final issue is how to use a rank once it is established. A rank can merely be a publicly-displayed number to be used as a guideline in an environment where players choose their own opponents, such as in a lobby-based matching system. Or, a rank can be an unseen number used internally by the system to funnel players into competitions of similarly ranked players.

But what does "similarly ranked" mean? If defined too narrowly, there are too few players to form a competitive community, and tournaments fill up too slowly (described within the industry as “low tournament velocity”), creating an unsatisfactory experience for players. If defined too loosely, an unfair environment exists wherein certain players have a slim chance of winning. Achieving the appropriate balance requires constant monitoring by the tournament managers at the skill games provider, and hard decisions such as whether to lean toward fairness or toward tournament velocity.

Internal ranking systems work best when there are a lot of players being matched and a lot of tournaments in which to match them. This allows skill game providers to create narrow margins of skill within a given tournament, increasing the percentage of time that a lower-skilled player can win. Thus sites with high traffic volume are able to provide a more "fair" experience for their players.

Tournament types

Over many years of experimentation, skill game providers have settled on a handful of tournament types which have proven to be the most successful.

Standard tournament types include:

- *Limited entry* competitions (also called or *matched* competitions) – The identifying characteristic of a limited entry competition is that it contains a pre-established number of competitors; generally between two and ten players. The competition ends when the final player completes playing his or her game. Thus, while the number of players and the final prize (or prizes) are known in advance, the duration is not. A limited entry competition might remain open for only a few minutes, or for days, depending on the number of players on the site and the popularity of the game in question. Players rarely enter a limited entry competition multiple times.
- *Progressive* competitions (also called *progressive prize*, *progressive jackpot*, or *progressive cash* competitions) – These are tournaments where the ending time is set in advance, but there are an unlimited number of participants. Players are encouraged to enter multiple times, and generally do. Progressive competitions generally last for a period ranging from one day to one week. The prize (or prizes) rise with each entry, so while the end time is known, the final number of players and the final prize(s) are not. Progressive competitions in popular games frequently attract hundreds or even thousands of participants.
- *Unlimited entry* competitions (also called *guaranteed jackpot* or *guaranteed cash pot* competitions) – These tournaments are similar to progressive competitions, in that the ending time is established in advance and the number of entrants is not. The difference is that the prize (or prizes) is fixed, rather than rising as the number of entrants rises. The prize is often in the form of merchandise rather than cash, such as consumer electronics, jewelry, gift certificates or travel packages.
- *Challenge* competitions (also called *lobby* competitions) – These are two-player matches played in real-time, with players taking turns just as in games like chess or billiards. Players select their opponents via some type of game lobby (see screenshot below). If a ranking system is used, it is merely as a guide to help players choose their opponents, rather than relying on a software-driven matching system. There can also be two-player tournaments issued as a challenge from one player to another, either to a "buddy" or a stranger, and played asynchronously.

- *Ladder* competitions – A ladder is a permanent, or at least ongoing, competition composed of many sub-competitions. Players are arranged on the ladder from best to worst, based either on a preliminary seeding tournament or a metric such as rank or lifetime winnings in that particular game. Once qualified, a player can challenge another player who is above them on the ladder. Typically they are only permitted to challenge those who are several rungs above them. If the challenging player wins, or if the challenge is ignored, the two players swap positions on the ladder. If the challenger loses, both players retain their positions. Thus, players attempt to battle their way to the top of the ladder. In addition to prizes for individual ladder challenges, there may be prizes for the top player or players, as well as the bragging rights the leaders gain from holding the top spots.

- *Bracket* competitions (also known as *survival* competitions) – A bracket is a series of two-player competitions, with winners playing each other in a progressively-narrowing field, until a final competition decides the winner of the bracket. Because of the structure, the number of participants must be a power of two -- i.e.16, 32, 64, 128, and so forth. Unlike a traditional bracket tournament, survival competitions are played as an asynchronous bracket, which permits users to play as soon as they join the competition. As a result, there is no need for a qualifier event or pre-competition registration period. There is also no need to manage a timeline of the rounds. One player could be playing their fifth round game while another player is just starting out in the first round. If a player is eliminated and there are still spots open, the player can re-enter. A player could conceivably make it all the way to the penultimate round, lose, re-enter, and go on to win it. Players have a set period of time, such as 24 hours, to play their bracket game. If the game is not played, they forfeit the game and their opponent moves on. Like progressive competitions, bracket competitions can involve many players and large prize pools. Unlike progressive competitions, however, which reward a single stellar performance, brackets reward players who maintain consistently good level of play.
- *"Top this"* competitions – This is a one-player competition. A player is given a target score based on his or her own past performance in the game. The player then attempts to beat that target score. If the player beats the target score, a prize is awarded. This type of competition is not offered to brand new players because of the need to collect a history of player scores in order to establish a relevant stretch target score.

Case study: WorldWinner's *Family Feud*

Introduction

"100 people surveyed; the top four answers are on the board... Name one of the most popular television game shows during the past 30 years… Survey says...*Family Feud*" – *typical narration from the ABC game show "Family Feud"*

Since the summer of 1976, the game show *Family Feud* has entertained millions of television viewers across the globe. The formula is simple: pit two families against each other to answer the most popular responses to a series of survey questions. Add prizes and a charismatic host and you have a game show that has stood the test of time.

WorldWinner, in partnership with FremantleMedia Enterprises, licensor of *Family Feud*, translated this television show into a skill game where casual gamers can compete for cash and prizes like contestants on the show, but from the comfort of their homes.

Objective

Create a skill-based version of *Family Feud* for cash tournament play on the WorldWinner platform.

Goals

- Format the game as a single-player experience, in contrast to the TV show's format of two competing groups of players; the player of the skill game would get a score based on his/her individual performance, which would then be used to determine his or her tournament standing. This is a requirement of all WorldWinner games, as synchronous multiplayer games have not proven to be successful in the skill-based, cash tournament model.
- Create a game that consumers familiar with *Family Feud* would recognize, and new players could quickly learn.
- Include as much of the iconography of the television game show as possible – colors, logos, decorative set elements, and so forth.
- Minimize or eliminate the "luck factor," as is required for the game to legally qualify as skill-based.
- Create an entertaining and compelling game that will engage players on an ongoing basis.

Game overview

WorldWinner's version of *Family Feud* is a single-player experience. The player does not play with or against other human players or computer-controlled opponents; instead, the player's score is entered on a tournament leader board and used to determine the player's prize from the tournament, if any. Each game consists of two rounds. In the main round, the player attempts to determine four answers to a supplied *Family Feud* survey question. In the bonus round, the player attempts to identify the most popular of the four answers to the survey question given in the main round.

Primary design challenge

The primary design challenge for the skill game version of *Family Feud* was to avoid a free-response, type-in interface, as is used in other PC or web versions of *Family Feud*. A type-in interface would require WorldWinner to account for a seemingly endless number of acceptable synonyms for each answer given.

An example of the limitations of a free-response interface comes from one of the existing PC versions of the game: The question was, "When you buy a new car, what do you do with the old one?" The answer "THROW IT AWAY" resulted in a buzzer and a red "X" indicating an incorrect answer. The game ultimately revealed that one of the answers was "JUNK IT." A player who paid a cash entry fee to enter a tournament would most certainly complain and demand a refund for that game. As a result, this approach was not viable for WorldWinner. This "synonym problem" would have a number of negative consequences:

- Significant pre-launch costs associated with reviewing the database of answers in an attempt to include as many acceptable synonyms as possible for each answer.
- Increased post-launch customer support costs associated with responding to the foreseen sea of complaints about instances like the example cited above.
- Costs associated with refunded entry fees when instances like the example cited above occur. In a five-player tournament, refunding a single entry fee would negate WorldWinner's revenue for that tournament.
- A negative player reaction to the game resulting in reduced play.

The replacement interface WorldWinner designed allows players to reveal one letter at a time and then type in the remaining letters once they have figured out the answer. In the simplest terms, it is a hangman style game where the player does not guess letters, but rather reveals them until they recognize the answer. As a result, there is still an element of determining the most popular survey responses, while eliminating the issue of having to guess the correct spelling, wording or synonym for the answer.

Game play – main round

The main round begins by displaying the survey question and after a brief delay; a single answer field appears. The game clock starts after the answer appears in the form of boxes representing the letters in the answer. It counts down from 2:00 (that is, 120 seconds). The main round consists of four unique screens, labeled "X of 4" where X is the current poll answer (e.g. – "3 of 4"). The game delivers the survey answers in random order, and not in the actual order of popularity.

The game only reveals one random letter in each answer at the start of the round. For example, if the question was "Name something an actor hopes won't happen to him right before a big audition." and the answer was "FORGET HIS LINES" the player might see:

_ _ _ _ _ _ _ _ _S _ _ _ _ _

Thereafter, the player can request an additional letter by clicking on the "Reveal Letter" button. So after 6 requests to reveal a letter, the phrase might look like this:

F _ _ G _ _ _ _ IS _ I _ E _

As soon as the player has determined the answer, he or she can click the "Solve" button. This will change the "Solve" button to a "Submit" button. The player is then required to type in the

remaining letters to complete the answer and submit it. Upon hitting the “Enter” key or clicking the “Submit” button, the game compares the player’s answer to the real answer; if it is not a match, a large red “X” appears on the screen. If it is a match, a sound effect signals the player’s success, the player’s score increases, and the game reveals a new screen containing a different answer with boxes and the first letter filled in.

The main round ends unsuccessfully if the player receives a third “X” at any point, or if the clock counts down to 0:00 before the player has successfully completed every answer. The round ends successfully upon completion of the last answer. If the round ends unsuccessfully, the game is over, the player is presented with an animation of the four correct answers and then the final score summary screen is displayed. If the main round ends successfully, the player continues on to the bonus round.

Game play – bonus round

The bonus round starts with a message instructing the player to "Choose the #1 most popular answer from the answers below!" The timer is set to 20 seconds and begins counting down.

The player then simply clicks on one of the four answers, which is then highlighted. The answer's popularity rank among the other answers is revealed and the player is awarded the appropriate number of bonus points as shown:

Most Popular Answer = 75
2nd Most Popular Answer = 50
3rd Most Popular Answer = 25
4th Most Popular Answer = 0

For instance, if the player were to select the third most popular response based on the survey results, he or she would receive a bonus round score of 25.

Market response

On September 27, 2007, WorldWinner launched the game to its entire community of players. This included players from across its large partner network, including AOL Games, MSN Games, Pogo and GSN.com (formerly The Game Show Network). The game received an immediate burst of play, which is typical of any newly-launched game on the WorldWinner site. Also typically, the majority of the game's revenue came from its offering in limited entry tournaments. Less typically, the game has proven to be a very powerful tool for acquiring new players. As anticipated, thousands of players were enticed by the popularity of the television show and the familiarity of the brand.

In the seven months since launch, the skill game version of *Family Feud* continues to be a top acquisition tool for driving new players to the WorldWinner platform, based on click-through rates from links and banner ads on WorldWinner's partner sites. WorldWinner solicits player feedback regarding the game mechanic, content and length of the game. Many players have requested a longer game with additional rounds, and WorldWinner is currently considering enhancements to the game to further improve the player experience.

Market players

Skill game providers:

- GameBonus (www.gamebonus.com)
- Game Colony (www.gamecolony.com/)
- Gamedek (www.gamedek.com)
- Game Desire (www.gamedesire.com/)
- Gameduell (www.gameduell.de/)
- Gamezaddict.com (www.gamezaddict.com)
- Greentube (www.greentube.com/)
- King (www.king.com/)

- MoneyGaming (www.moneygaming.com/)
- SkillGround (www.skillground.com)
- SkillMoney (www.skillmoney.com)
- Tournament Games (www.tournamentgames.com)
- WorldWinner (www.worldwinner.com/)

Key IP holders who have licensed IP to skill game providers:

- PopCap (www.popcap.com) – *Bejeweled*, *Chuzzle*, *Zuma*, others
- Fresh Games (www.freshgames.com) – *Cubis*, *Word Mojo*
- PlayFirst (www.playfirst.com) – *Diner Dash*
- MumboJumbo (www.mumbojumbo.com) – *Luxor*
- Hasbro (www.hasbro.com) - *SCRABBLE*
- Fremantle (www.fremantlemedia.com) – *Family Feud*, *American Idol*, *The Price Is Right*

Key game portals with partnership deals with skill game providers:

- AOL (www.games.aol.com) – WorldWinner
- GameHouse (www.gamehouse.com) – King
- GSN (www.gsn.com.games) – WorldWinner
- Lycos (www.gamesville.com) – WorldWinner
- Pogo (www.pogo.com) – WorldWinner
- RealArcade (www.realarcade.com) – King
- Yahoo Games (www.games.yahoo.com) – King
- MSN Games (www.zone.com) – WorldWinner

Microtransaction Supported Games

Entire section by Roman Nouzareth and Café.com staff

There are many challenges developers face when devising new games and platforms, not the least of which is how to create something that appeals to a wide range of users, is easily accessible by said users… and still turns a profit for the game publisher.

In this section, we will discuss how the micro-transaction (MTX) system accomplishes this, and benefits both developers and users by providing a low cost and easily customized experience to players while at the same time generating a high return for the game publisher; ways in which the business model has already been successfully implemented; and what role MTX will play in the emerging future.

What is MTX?

MTX (Micro Transactions), also known as 'item sales', is a business model introduced in Korea in the late 1990's to derive revenue from online gaming communities. Instead of relying on package sales, download sales or subscription to generate revenue, MTX games sell virtual items or services that enhance the user experience while basic access to the game remains free. Objects of MTX's can take many forms. They can be purely cosmetic (e.g. avatar clothes, game background customization), impact game-play (e.g. double accumulated experience for a limited amount of time, provide a burst of speed in a racing game, etc) or provide extra or special services to a player (e.g. the ability to reset ones track record in a shooting game once one has achieved Expert level and wishes to claim being undefeated). Items can also be used as gifts (virtual flowers) or additional content (New maps, levels, music, etc). MTX must not be mistaken with RMT (Real Micro Transactions), which is the buying and selling of items between players using real money.

Most MTX based games or sites have their own virtual economies. A player uses small amount of real-world money to purchase a larger sum of in-game currency, which is then used to purchase goods and services (Avatar outfits, game power-ups, etc). Developing a virtual economy is challenging, but is vital for user experience as well as for revenue generation.

Origins of the business model in games

In the East, after the release of *Lineage* in 1998, online games gained huge popularity in Korea and later in the rest of Asia. *Lineage* users paid a monthly subscription fee of 29,000 KRW ($29 USD) to access the game, and because players were required to connect to a server in order to play, the game's revenues were not affected by piracy. Following the success of *Lineage* many new online games were launched and competition became so intense that most of them failed to reach the critical user mass necessary to recoup development and operations cost. The MTX model emerged as an answer to the resulting challenge: how to monetize an online game, while

removing barriers to entry so as to maximize the number of users and their retention? MTX accomplishes this by providing free access to games and services and charging only those users prepared to pay extra for a more comprehensive experience.

At the same time and until recently, the Western market existed in a pure "Try Before You Buy" model, a trend which took a down-turn after the industry realized that the 1% industry standard conversion ratio (that is, the percentage of users who purchased a game after completing the a trial run) was simply not producing enough revenue to maintain a competitive playing field.

Asian Experiences

Online multi-player casual games played host to the first initial experiments of micro-transactions, with the first major success being *BnB Crazy Arcade* by Nexon, a *Bomberman*-type online game that topped the charts in Korea and China for a few years (700K PCU in China in 2004). *BnB*'s items are purely cosmetic, customizing things like size and color of game elements, and don't affect the game-play.

MTX soon became the obligatory business model for online casual games in Asia, and was successfully implemented in many casual and advanced casual titles such as *Kart Rider* (online racing game), *Freestyle* (basketball game), Pangya (casual golf game), Special Force (FPS), *Audition* (rhythm game), and many others (*Hangame* games, *QQ* games, etc).

In 2006, leading Chinese online game publisher Shanda applied the same thinking to more advanced hardcore games and moved its portfolio of MMOs from a subscription model to MTX, leading to a boost in user acquisition and retention as well as an increase in Average Revenue Per User (ARPU) (company profit was up 49% to $338 million in 2007**Error! Bookmark not defined.**).

In a similar action, American publishing giant Electronic Arts became the first Western publisher to attempt the MTX model in Asia when, in partnership with leading Korean online game company Neowiz, it released *FIFA Online* in May 2006. *FIFA Online* is an adaptation of the popular *FIFA* soccer franchise for PC and consoles that focuses on multi-user play and includes an online backend that manages player statistics, tournament information, micro transactions and so forth. MTX is used for various enhancements, such as allowing the user to extend the career of a star player. The game has quickly become the number one online sports game in Korea, with over five million registered subscribers, and sold 700K enhancement units in 7 months. Building on this success, EA will be releasing *Battlefield: Heroes* as a global MTX release in summer 2008.

Example of a Success Story*: Kart Rider* (Nexon)

15 million subscribers in Korea (25% of the countries total population).
Reach 220K PCUs (Peak Concurrent Users) in February 2006.

Sold over 20 million virtual cars.

- Decorative items: from $0.60 to $1.80

- Functional items: from $0.80 to $5.00

- Decorative + functional items: $0.60 to $10.00

Western experiences

Since its inception in Asia, the MTX approach has been tried by several companies, either as a stand alone or in combination with another model. In the casual segment, Pogo.com started selling gems to its Club Pogo members at the end of year 2006. These gems can be used to purchase badges, badge albums, and items for avatars. EA announced that gem sales in 2006 produced an extra 10-15% revenue on top of that generated from Club Pogo subscriptions (1.5 million subscribers).

Also in 2006, Boonty, Inc. purchased a Beijing based studio to develop Cafe.com, an online destination website for casual and social multiplayer games, with a business model based on MTX which launched in January 2008.

On the publishing end, in September 2007 casual game publisher Playfirst launched *Diner Dash Hometown Hero*, the latest installment in its popular *Diner Dash* franchise, with an MTX heavy system offering a wide range of products (500+ clothing & decor items at various prices, as well as additional restaurants available for $4.99). The game has been a huge success; more than 1/3 of all revenue for Diner Dash: Hometown Hero has been from item sales and overall, and item sales are incorporated in only one game out of ~500.

Puzzle Pirates , a pirate-themed MMO by Three Rings, initially offered users the best of both worlds by employing both subscription and MTX based pricing plans, and allowing players to choose which to utilize. The subscription model was eventually abandoned due to the popularity and success of the MTX model.

MTX has also been emerging in the hardcore segment lately, mostly on consoles: On top of the cost of a standard Xbox Live subscription, Microsoft earns an extra 10% in revenue by selling cosmetic upgrades, extra content for games (referred to as “downloadable content”), and more. Players of MTV’s rock music simulator game *Rock Band*, available on PS3 and Xbox 360, downloaded more than 2.5 million songs at about $2 each in only the first 8 weeks of its release.

MTX Market Overview

Depending on the sources, the global online games market is forecasted to reach between $12 and $13 billion in revenues by 2011.

Asian Market

In Asia today, revenues from MTX games are greater than subscription revenues, and is considered the mandatory business model for all new game releases.

The MTX game market is at its strongest and most mature state in Asia. Key players include top casual and hardcore game operators such as Nexon (*Maple Story* Korea) and NHN (Hangame game portal & ijji.com) in Korea & Japan; Shanda (*Maple Story* China) and Tencent Corp (*QQ* game portal) in China; and Neowiz (*Pmang* game portal) in Korea. Large Western publishers who used to license their online titles to Asian operators under a subscription or a box sale model are now being forced to move to an MTX model in order to penetrate the Asian market. As mentioned, Electronic Arts was the first to successfully do so with *FIFA Online* in Korea. To further build upon its success, EA plans to launch *FIFA* in other Asian markets and to launch more MTX versions of its successful titles in the future.

Perhaps most pertinent is the fact that MTX is increasing rapidly, and largely at the expense of subscription models. Casual, mid, or hardcore, MTX is now the standard for online gaming in Asia. All new successful games use this model as consumers become more reluctant to commit to upfront purchases or subscription plans. The size of the MTX market in Asia is difficult to estimate as many companies are privately held and do not publish financial information, but Pearl Research forecasts the online games market in China was worth $2 billion in 2007 and will exceed $3 billion in the next few years, having already grown 60% in 2007 alone, driven by diverse, free-to-play games and a greater demand for a leisurely, casual experience[19].

On the title level, a successful advanced casual game or MMO in Korea such as *Kart Rider* or *Maple Story* will have a PCU (Peak Concurrent User) of around 60,000 to 80,000 users and an active user base of 300,000 to 500,000. Some, such as *Special Force* or the aforementioned *Maple Story*, have a substantially larger fan base.

For most games in Asia, ARPU is generally calculated at $5 per active user per month, but this revenue actually comes only from a dedicated fraction of the user base while the majority of players never pay a cent. In 2007 certain online games began to reach $7 to $12 ARPU, but the most successful games may collect up to $25 USD per user and month. Overall a successful MTX game will generate monthly revenue of USD $1.5 - $3.5 million in Korea alone.

Korea

CJ Internet: Operates the NetMarble game portal, with around 100,000 concurrent users in Korea. Their allowing only people possessing South Korean citizenship registration numbers to join may put a damper on future growth.

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[19] Pearl Research Market Research and Consulting Services, China – April 2008 Update

Neowiz: Operates the Pmang portal, which specializes in mid-session casual games. Neowiz claims to have an active user base of 6 million people in Korea. Neowiz partnered with Electronic Arts to co-develop and operate the MTX version of *FIFA Online*, and In 2007 EA acquired 17% of the company.

Nexon Corp: Operates the largest online gaming portal in Korea, with 18 million subscribers in the country (55% of Korean Internet Population). Game catalogue ranges from flash mini games to MMO's and includes everything in between. All games use an MTX model. Nexon established offices in the US in 2005. Their most popular game in the west is Maple Story, which has attracted 2 million users since its launch. In 2005, Nexon posted $230 million in revenue, with 85% generated from virtual items sales.

NHN Corp: Operates Hangame, the number one casual gaming portal in Korea and Japan. Hangame has about 150,000 concurrent users in Korea, 100,000 in Japan. Game offerings vary from country to country but generally cover a broad scope of online game genres from short session casual to mid-core to full fledged MMO. Most games use an MTX model.

China

NHN Corp: Operates the OurGame portal, simliar to its Korean/Japanese counterpart *Hangame.*

Shanda: One the top 4 online game operators in China It started by operating MMOs and later began offering short and mid session casual games. Early 2006, Shanda moved all its products including MMOs to MTX with positive impact on user growth, user retention and overall revenue (profits were up 49% in 2007, garnering an impressive $338 million USD).

Tencent Corp: Tencent Corp's QQ games portal is the largest casual gaming portal in the world with over 30 million active users in China. All of its games use the MTX model.

Tencent has over 250 million active users in China and generated $100+ million in Q1 2007. 65% of their revenue comes from virtual goods and services.

Tencent is listed on the Hong Kong stock market (Stock Code: 700)

Western market

In North America and Europe, MTX represents a new approach for most of the industry players. Successful MTX models in the west such as *Habbo Hotel, Club Penguin, Puzzle Pirates*, Pogo, Cafe.com, *Stardoll*, King.com and more, have proven the viability of the new business model for Western audiences, provoking an industry charge towards MTX for attracting new players.

Because of this new model, it is possible to offer a game for free and make up the lost revenue by having the end user pay what they are willing and prepared to for as many or few extras as they wish, without forcing them to pay for unwanted content. This keeps the player happier, interested, and more willing and able to purchase additional content. As an added bonus, the

(often-multiplayer) games gain a much larger user base as word of ease of play and low to no cost spread among social groups.

One needs look no further than the numbers generated by top players in the field to see the truth of these statements. In February 2007, North American players spent $1.6 million on 600,000 virtual products within *Maple Story*; From November 2006 to June 2007, $6.7 million worth of virtual gems were purchased to upgrade features on Pogo.com; King.com collected $27 million from gaming micro-transactions in 2006. *Habbo Hotel* has more than 75 million avatars worldwide (7.5 active users), and more than 90% of its revenues (estimated $77 million in 2006) come from virtual goods; 50% of transactions made on *Diner Dash* today are below the $4.99 price point. A full 36% of the revenues from *Diner Dash Hometown Hero* are coming from MTX, the rest being download sales; Three Rings did $3M in Doubloon sales last year with a price point going from $2.95 to $99.95 with average sale at ~$20 and ARPU for a paying user of ~$50 in a particular month, lifetime north of $100; and over at Cafe.com, 42% of the earliest users have utilized more than 5 purchasable items per game session.[20]

On the hard-core front, Electronic Arts will soon be releasing in Europe and North America the aforementioned free online version of the popular game *Battlefield,* to be supported entirely by adverts and micro payments. Gamers will be able to buy items that customize their appearance in the game, but will not be able to seek an advantage through buying weapons. EA expect 95% of players will never purchase extra content. In South Korea, the company's free online version of *Fifa* earns more than $1m a month through in-game sales.

Also helping to expand the MTX model into the western market is that by 2007, many Korean & Chinese companies opened US branches and destination sites, including Ijji by NHN, QQ USA, Nexon USA, etc.

Facebook.com, which while not a game is nevertheless a stellar example of MTX success, uses the model to sell goods through the Gift of the Day application, simple digital presents usually costing around $1. Facebook applications and application developers (Zynga, SGN, the wildly popular Scrabulous, etc) are starting the MTX integration but it is most likely something they will develop more in 2008/2009.

US

Cafe.com: Operated by Boonty, Inc., Cafe.com is a destination website for users to play free games, win prizes and meet friends. The site was initially launched in 2006, and revealed its completely revamped version in February 2008.

[20] Boonty, Inc., Internal cafe.com data, June 2008

K2 Network: Operates Asian online titles in the West – such as *Global MU Online* and *Sword of the New World* – several of which use the MTX model.

NHN USA: *Hangame* and OurGame operator NHN Corp launched its game portal in the US as Ijji.com, and a European release is set to follow in 2008.

Nexon USA: Their popular South Korean developed game *Maple Story,* a free-of-charge 2D side-scrolling MMO, relies entirely on real-money MTX to generate revenue, and by February 2006 had already generated 200 million USD in South Korea alone.

Playfirst: Incorporated MTX in the new multiplayer installment of its popular *Diner Dash* franchise, "*Diner Dash Hometown Hero*", launched in 2007. In a press release Playfirst CEO said that *Hometown Hero* was the most popular *Diner* title to date and that 36% of the revenue came from MTX, with the remainder generated from actual game sales.

Electronic Arts (Pogo.com): EA's Pogo.com casual gaming site uses MTX as a source of additional revenue from its club Pogo service. The items sold on Club Pogo are purely cosmetic and do not affect game play.

Tencent QQ USA: A functioning example of players' preference for the MTX system, in 2002 the chat and gaming service QQ began requiring new users to pay a registration fee, but returned to the free system in 2003 under pressure from their partners. Currently, paid premium memberships are available in addition to the free service.

Three Rings: Three Rings is a startup developer of persistent world online games, based in San Francisco, California. They are the publisher behind *Puzzle Pirates*, *Bang*! *Howdy*, and *Whirled*.

Europe

Few European companies focus exclusively on MTX, but several now integrate some degree of an MTX model.

Bigpoint: Develops and operates MTX mid session casual games. Bigpoint has over 13 million registered users in Germany. In June 2008, thee Peacock Equity Fund, a joint venture between GE and NBC Universal, announced a definitive agreement for the majority buyout of Bigpoint for €70M

France Telecom: GOA: French telco that launched the GOA portal. They operate Asian MTX mid session casual games such as *Pengya*.

Given the success of the model in Asia and in the West it is likely that the MTX model will be more widely used in Europe in the future. The benefits – especially for casual games sites – are too great to ignore: the model represents an opportunity to attract a large audience and higher revenue than a pure advertising or "try before you buy" system.

Community gaming sites in particular have a lot of potential for generating high amounts of ARPU through items focusing on interaction between players. The Asian experience suggests that once one of these companies has a resounding success with MTX, it will be difficult for anyone to force a more rigid subscription or sales per download model on users, and MTX will likely quickly gain a large market share.

Microtransaction Audience

If there is one thing that can be said of MTX, it is that it has truly transformed habits within the online gaming world. Audiences of both casual and hard-core games have been quick to embrace and integrate the usage of micro-transactions. This is because, as Minho Kim, Director of Game Operations for Nexon America said in an interview with Gamasutra.com:

> *"The great thing about micro-transactions is that they are scalable. You can spend as little as zero dollars – but as much as you want. You're not linked to a certain scale."*[21]

For the players, the rationale for using games with micro-transactions is simple: A free game removes the barrier to entry, connecting a player to as many friends and other users as possible. Players may easily find themselves spending more than $10 a month via one-dollar-and-fifty-cent impulse purchases, and be more comfortable with it than paying an equal priced monthly fee.

A key feature of these MTX games is social-networking, and players are ready and willing to fork over yen and yuan to tweak their appearance to their liking. At Hangame, Japan's number one internet game portal, customers can spend anywhere from 30 cents to $10 an item to customize the look of their avatar visible during social interactions and in the otherwise free games.

According to Nexon, players of the casual racing game *Kart Rider* have purchased some 20 million cars in the game, and they can record and post their races and scores on a community website, along with screenshots of their cars. This encourages users to purchase higher-end upgrades and customizations.

The largest downside to MTX are payment issues such as not having access to a credit card. In order to widen the targeted audience to kids and teens and other people who may not have access to (or don't want to use) a bank account or credit card alternative methods of purchasing and payment can be used, such as phone billing, premium SMS, prepaid cards, and even gift cards.

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[21] Minho Kim, *Interview with Gamasutra*.com, http://www.gamasutra.com/php-bin/news_index.php?story=15425 (September 2007)

The successful, subscription free casual MMO *Maple Story* trumped this issue particularly well, making prepaid cards available for purchase to its audience of mostly non-credit card aged users. The same example can be seen in Europe with *Habbo Hotel*.

Game Production and Development

Items that provide power-ups to users or cosmetic upgrades & customization are nothing new to game developers. These items have always been heavily integrated into game play, and especially in the MMOs and other multiplayer games that have experienced a recent upsurge in popularity. As the trend in casual gaming continues to rise, we will more and more see casual users entering what are generally considered 'hard-core' games, and being unable to compete properly with these games' traditional user base. This phenomenon is especially true in MMOs, in which personal investment must of necessity be particularly high. By unsoldering power-ups from the game design, however, certain rewards and such can now be available to players who may not have the time or inclination to devote hours on end to grinding and farming the required gold/reputation/experience/insert-required-point-system-here. This allows the more casual (or otherwise occupied) player to compete with the more dedicated ones.

Surveys lead publishers to think about monetizing these game-play elements as enhancements, which could allow players to be competitive with other players that have invested a lot of time into the game. This phenomenon is especially true in MMOs, in which personal investment is particularly high but the trend in casual gaming is increasing quickly as we now see casual players playing as much as hard core players.

This kind of system comes with some risks, however. Besides bringing advantages to players and enhancing the game-play, items shouldn't unbalance the game. They should be helpful enough to incite players to buy them, without creating frustration in those players who are putting time an effort into the game instead of buying powers. The game needs to remain a source of fun, and reward the most skilled players, not the richest ones. A good game design will prevent the possibility for a player to simply "buy" success.

Items have to enhance the game-play by keeping a good balance and make sure that benefit worth the price. One need look no further than the recent *Battlefield: Bad Company* fiasco to see players' feelings on matter clearly illustrated. When the game's beta was initially released, it was apparent that five super-powered weapons would be available either through purchase on XBox Live, or immediately out of the box for those who purchased the games Gold Edition[22]. Basically, this amounted to an almost insurmountable leg up on the competition for any player willing to shell out the extra cash. Luckily, the public backlash was such that the game's

[22] Xbox 360 Fanboy Blog [Internet] – [2007 March 21]. http://www.xbox360fanboy.com/2008/03/21/ea-charging-for-weapons-in-bad-company-beta/

publisher Electronic Arts reversed its decision, making the guns available for free in the games basic edition for those who completed it all the way through. In terms of its relationship to MTX, popular gaming news site Kotaku summed up the lesson in this scenario quite succinctly:

> *"What this basically means is that people willing to drop a little extra cash, be it in the store or on Xbox Live, will have more weapons to choose from than someone who scrapes together just enough to pick up the game itself. This is not the way micro-transactions should be used. Cosmetic additions and extra maps are all well and good, but allowing players to pay in order to get a leg up on the competition is just slimy"*[23]

Conversely, a good example of a well-balanced power up system – though it makes use of the in-game currency & point system rather than real life MTX – is the PVP reward system in Blizzard's popular MMORPG *World of Warcraft*. The game employs two separate PvP point systems: Points awarded through standard PvP in Battlegrounds and via special quests; and Arena points earned through participation in the Battle Arena. Special powerful sets of armor and weapons are available immediately for a certain cost to players who succeed in the Arena; however, being an Arena fighter requires a huge amount of time as well as a high level of skill, neither of which the average player possesses. In the interest of fairness, at the end of each Arena season these power-ups become available to anyone participating in normal PvP, and a new special set is added for the Arena. The benefit to this system is that players can choose between a large time commitment and quicker gratification, or wait to earn the armor later at a cheaper rate. Either way, the power-ups are eventually available to all, with an even cost of time versus money; making it difficult for a low-level player to simply "buy" their way into the upper-ranks, yet giving them a fighting chance.

In regards to casual gaming, there is a school of thought that adding items and power-ups of any kind automatically brings a game to a more advanced or hardcore level, though these believers ignore the fact that classic casuals like *Bejeweled*, *Collapse*, etc have been incorporating small power-ups of some kind since their inception. Even more involved titles like Nintendo's *Mario Kart* successfully integrate power-ups that greatly enhance play, in a game that can be played as casually or intensely as the players wish. The items do not make play harder for players, as they are easy to obtain, use, and do not generate stress or frustration (except perhaps for the legendary "blue shell"!). Studios must be cautious when adding items to a game, as they run the risk of denaturizing the core of the game play. If a user had to work as hard to pick up an extra item in *Mario Kart* as they do to say, pick up an ultimate weapon in a more advanced game like *Unreal Tournament*, the act of trying to get that power up will destroy the casual experience.

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[23] Kotaku.com, http://kotaku.com/370694/ea-charging-for-bad-company-weapons (March 2008)

There are many different types of items that can be integrated in an MTX game. Nevertheless, it is crucial to remember that these elements shouldn't run the risk of unbalancing the game, perhaps slanting the odds so lopsidedly in one players favor that victory in inevitable. To avoid this kind of issue and still enable the use of MTX developers should think about integrating environmental and cosmetic items, rather than ones that enhance game-play (at least in a direct sense). These upgrades are just as useful in improving the quality, diversity and interests of a game, without worrying about any kind of adverse effect on play.

Items may be used to open more content to the player (levels, quests, songs, etc), enabling longer play and enhancing the experience without actually changing play. With this kind of content there is the risk that a player who buys a new map may find himself unable to play with his friend who has not purchased the new content. One solution may be giving those who purchase exclusive content the ability to share it with a limited number of friends, perhaps something similar to the song share function on the Zune, Microsoft's flagship MP3 player. Alternatively, if the content is attractive and consistent, the scarcity and exclusive concept could actually have a positive viral effect.

In terms of cosmetic enhancements, new avatar modes work well, like sports stars, US presidents, famous celebrities, etc. Also popular are new skins and accessories, such as new clothes, physical attributes like eye color and haircuts, accessories for avatars inside the game, as well as new backgrounds/skins, or sound effects allowing greater player interaction through a chat system. In *Diner Dash*: *Hometown hero* for example, the most popular items are the skins that players can apply to their restaurant to give it a personal touch, making their creation unique to themselves. Players enjoy being different and showing off their personality, which makes this kind of element very popular.

Player enjoyment and promotion is a perfect opportunity for MTX. Options like videos of play, a screenshot of the players team as it gloriously captures the enemies base, streaming music from a players PC for other users to hear, and other such devices help immerse the player in the game, and add to the sense of community. Obviously these kinds of extras are not necessary to game-play, but can have a great impact on player enjoyment. For example, assaulting an enemy team from the air in *Battlefield* is that much sweeter when the player is simultaneously broadcasting "Flight of the Valkyeries" to all his unsuspecting victims.

As cultures are very different and language-barriers a real issue, it is extremely beneficial to localize and customize items in relation to real-world events like Christmas and Halloween to provide a deeper immersion in the game. *World of Warcraft*'s annual Wickerman Festival (on Halloween) and Feast of Winter's Veil (on Christmas) events are prime examples of this practice. More than a marketing concept, it means wrapping players into a universe, in which they are comfortable and willing to spend more time in.

Besides all these non-game-play elements, above all items mean interactions between players during a session, whether by improving their skills, inconveniencing an opponent, or defending against those opponents' attacks. It bears repeating, balance and MTX pricing must be diligently paid attention to.

Taking Cafe.com as an example, three types of items – referred to here as "boosts" – have been developed for the games:

- **Attack:** A player uses a boost on an opponent that disadvantages that opponent. Ex: Player A sends the "Smoke Screen" boost to Player B, which blurs Player B's screen for a limited amount of time.
- **Beneficial:** A player uses a boost to give himself an advantage. Example: The "Mastersight" boost in Sudoku which allows a player to see the contents of squares for a limited amount of time.
- **Social:** User sends a boost to another player, not related to the game play, similar to systems already in place on social networking sites like Facebook. Example: Player A send flowers to player B

Whatever the case, MTX games should be playable without these boosts and upgrades, but be just challenging enough to encourage a player to desire to purchase a power-up. On Cafe.com, it is common for a player who has been beaten through use of boosts to immediately purchase said boosts for themselves.

As games increase their appeal to the general populace and move further into the mainstream, it will become increasingly important that developers create as few barriers as possible to the average user, while still remaining loyal the hard-core fan base. Micro-transactions will serve as one of the key elements in this balance, increasing accessibility for some and providing a well-rounded, customized experience for all.

List of key players

China

- CGN: http://www.cgn.net

- Netease Inc: http://corp.163.com/

- Ourgame: http://www.ourgame.com/

- Perfect World: http://www.perfectworld.com/

- Shanda: http://www.snda.com/en/index.jsp

- Tencent / QQ (Chinese):

North America

- Big Fish Games: http://www.bigfishgames.com

- Blizzard Entertainment: http://www.blizzard.coms

- Cafe.com: http://www.cafe.com

- Club Penguin: http://www.clubpenguin.com

- Facebook: http://www.facebook.com

http://games.qq.com/

- Tencent / QQ (English):: http://qqgames.com/

- The9: http://www.corp.the9.com/

Korea

- CJ Internet (Korean): http://www.netmarble.net

- Neowiz (Korean): http://www.neowiz.com/

- Nexon Corp (English): http://www.nexon.net

- Nexon Corp (Korean): http://www.nexon.com

- NHN Corp (Korean): http://hangame.com

- NHN Corp (Japanese): http://hangame.co.jp

- NHN Corp ((English): http://www.ijji.com

Europe

- Bigpoint: http://de.bigpoint.com/

- GameTribe: http://www.gametribe.com/

- GOA: http://www.goa.com/#

- Habbo Hotel: http://www.habbo.com

- K2 Network: http://www.k2network.net

- King.com: http://www.king.com

- Microsoft Xbox Live: http://www.xbox.com

- NCsoft: http://www.ncsoft.com/global

- Playfirst: http://www.playfirst.com

- Pogo: http://www.pogo.com

- SGN: http://www.socialgn.com

- Soft-World: http://www.softworldinc.com/

- Star Doll: http://www.stardoll.com

- Three Rings: http://www.threerings.net

- Zynga: http://www.zynga.com

Derivative Products

Section Editor: Dave Rohrl, Creative Director – Casual Games, Zynga

The modern casual game was originally invented as a committed web endeavor. Small, browser based games were built (usually in Java or Director/Shockwave) and posted on websites. If the game wasn't built as a branding vehicle, then the developer made money through display advertising embedded on the page hosting the game. This model worked well enough until the first dot com bubble began to rupture in 2000/2001.

As the dot coms vanished, so did the online advertising dollars they used to build their traffic. As the online ad market began to sour, it became obvious to virtually every developer that they needed to diversify their revenue streams.

Developers' initial efforts in this area focused on a variety of business models linked to online delivery. The first (and perhaps most important) of these was the try-and-buy downloadable PC game. Other new types of online revenue models (like console downloads and microtransactions) followed over time.

As developers saw casual games appearing in more and more different online forms, it occurred to many of them that they might be able to drive significant additional revenue and brand awareness by bringing their games to a variety of additional media that took their games beyond internet-connected PC's.

Given that casual games are designed to appeal to a wide variety of players, use very simple user interfaces and control schemes, and fairly low-end technology (particularly relative to the high CPU/GPU requirements imposed by modern hardcore console and PC games), casual games naturally adapt well to a variety of platforms and delivery mechanisms. This section explores several of the ways that casual game makers are taking their games beyond the PC (and the newly important console download space).

Casual Games on Mobile Phones

By Donald Bahlman, xBlitz Entertainment

Mobile, Coming of Age

Since the debut of the first cell phone in 1984, weighing in at a whopping 2 pounds and dubbed "The Brick", mobile has literally created a world of change, both in how we communicate and how we live our lives. As we began 2008, we not only witnessed a 22% annual growth rate, but we achieved the 50% global penetration milestone with more than 3.3 billion mobile user subscriptions. And according to Telecoms.com, subscriptions will keep growing from the now 3.9 billion to 5.6 billion in 2013. Also by 2013, 3G will account for half of all the global subscriptions. Susan Welsh de Grimaldo, senior analyst, Wireless Network Strategies at Strategy

Analytics says, "3G technologies will reach critical mass in more regions in 2008, driving worldwide subscriber numbers close to 500 million by year end. Next year, more than one third of all service revenues will be generated by 3G technologies, even though 3G accounts for only one in six subscribers."

Mobile Coverage and Penetration

Informa estimates that by mid-2007 mobile networks were covering 90% of our planet's population. Remaining still, 40% of the populous is covered by a network, but not connected; leaving 10% neither covered nor connected. However, just because we've reached this 50% global milestone, does not mean that every other person you see is walking around with a mobile. This is the number of mobile subscriptions that are in the world today; and quite honestly, many of us have more than one mobile account. According to a new survey conducted in Europe, 24% of European households use only a mobile device. And another 22% (adding to the strain on traditional phone service operators) use their computer to make calls over the Internet.

By the end of 2007 mobile phone penetration in the US was about 84%; on its way to a 100% by 2013, says SNL Kagan. And according to Real Networks CEO Rob Glaser, "Mobile penetration won't stop at 100%." He predicts that "it will go to 200% because the notion of a single device that does it all isn't the way [the market's] going to go." In fact, reports MobileActive.org, by the end of September 2007, 59 countries already had mobile penetration of over 100%, even though another 27 had less than 10%. "The mobile industry has constantly outperformed even the most optimistic forecasts for subscriber growth," said Mark Newman, chief research officer at Informa Telecoms & Media. "For children growing up today the issue is not whether they will get a mobile phone, it's a question of when." This seems to be the case with the 36 million kids and tweeners (ages 3 to 11) growing up with this cutting edge technology. Newman continues, "it is difficult to imagine how a modern economy could function without mobile telephony and a number of recent studies have shown that the mobile phone is having a hugely positive impact on the economies of emerging markets."

Market Share among Mobile Manufacturers

So amongst all this growth, who has carved-up the most market share? Well according to Mobref.com, as of June 2008, Nokia is the global king with a 48.92% market share overall. A distant second is Sony-Ericsson at 12.71%, followed by Motorola (5.18%), Samsung (4.35%) and LG (0.9%). A closer look at North America, is Nokia again at 9.85%, with Motorola (7.73%), BlackBerry (5.33%), Sony-Ericsson (4.78%) and Samsung (3.42%) rounding out the top five. As is no surprise Nokia (40.82%) also leads in Europe as well followed by Sony-Ericsson (18.54%), Samsung (3.54%), Motorola (2.47%) and Sharp (0.69%). And in Asia, you guessed it, Nokia owns a comfortable 44.81% of the market. The other top five look like this: Sony-Ericsson (7.73%), Motorola (2.88%), Samsung (1.93%) and Huawei (0.65%).

Mobile Sales and Popular Handsets

By the end of Q1/2008 more than 294.3 million mobile phones had been sold globally. Nokia still led the top five, shipping 115.2 million handsets. Samsung comes in at number two with 42.4 million. Third is Motorola (29.8m), showing a 37% drop in sales compared to just a year ago. LG and Sony-Ericsson finish out the list with 23.6m and 22.1m, respectfully. For Nokia customers, the handset of choice is the "N70-1" at 6.44% over all other Nokia models. Sony-Ericsson's most favored model is the W810i (0.99%). For Motorola's people most often reach for the "SLVR L7" (0.51%), for Samsung it's the SGH E250 (0.96%) and for LG we like the KG200 (0.15%). Here's some food for thought. In a recent study, Nokia found that only 3% of people recycle their mobile phone. Markus Terho, Director of Environmental Affairs at Nokia, said that, "if each of the three billion people globally owning mobiles brought back just one unused device we could save 240,000 tons of raw materials and reduce greenhouse gases to the same effect as taking 4 million cars off the road". An amazing 44% of old mobile phones are simply being kept at home and never used again. And interesting still, just 4% find their way into landfills.

Mobile Games Keep on Growing

Surfing this wave of growth, and looking pretty good on mobile, is the video game industry. According to MobilePhoneBlog.org (powered by Movaya), 2008 will go down as "The Year of the Mobile Game". And that may just be, as mobile game revenues are on track to hit $4.5 billion this year. That's up 16% from last year's $3.9 billion, according to Gartner, Inc. Add to that consumer uptake, the growing number of gamers, maturing business models and the continued advancement of technology in devices and we should expect to see revenue soar to $6.3 Billion in 2011. It is also forecasted that the number of mobile gamers should grow to an average of 134 million users per month by 2010, that's triple the 38 million measured back in 2005. iSuppli credits the adoption of gaming-capable wireless handsets and services, particularly in China and India. "Although current consumer interest in, and usage of, mobile gaming is generally low, the potential for growth remains lucrative, with the market skewed toward lower-income segments, mobile workers and smartphone and personal digital assistant (PDA) users," said Tuong Huy Nguyen, principal analyst at Gartner. "The fact that mobile gaming provides good value for the money is one reason for the healthy growth rate," continues Nguyen. "For a relatively small sum, consumers can enjoy a game over and over again, which is particularly relevant in emerging economies where penetration of consoles and PCs is lower."

Regions of Growth

The Asia/Pacific region (including Japan) is by far the largest market for mobile gaming. Gamers will spend a total of $2.3 billion in 2008, growing to $3.4 billion by 2011. The mobile-game market has outshone the PC and console game markets in Asia. India is expected to lead in terms of total mobile gaming revenue from $80 million in 2007 to $450 million by 2012. And according to eMarketer, "BRIC" — (Brazil, Russia, India and China) being the home to over 40% of the world's population—represent the next great growth curve for both mobile telecommunications and interactive marketing.

Western Europe will also grow from $701 million in 2008 to $862 million by 2011. And in North American the market should increase from $845 million to $1.2 billion in 2011. The Mobile gaming revenue gap between North American and Western European is expected to widen over the coming years as more Americans embrace mobile data services. "As voice revenues decline, mobile operators need to find ways to offset this downward trend, and mobile gaming has considerable growth potential," commented Nguyen. "Mobile gaming has evolved from being a bundled freebie to a stand-alone value-added service, as well as a growing source of data revenue for operators and publishers alike."

Casual Leads Mobile Content

For the foreseeable future, optimism lay on the side of casual games. Says Yuanzhe (Michael) Cai, Director, Broadband and Gaming, Parks Associates, "In the mobile gaming industry, consumer awareness lags behind technological advancements. New 3D and multiplayer mobile games look great in demos, but casual games are where the money is and will be for the next few years." According to Parks Associates, less than 10% of mobile gamers want to play a console game on their mobile. However, 55% want to play card and puzzle games, and nearly a third want word and arcade games. And why is this? In the United States alone, there are more than 90 million women who carry mobile phones. "Women play games just as frequently as men on their mobile phone," says Kristin McDonnell, chief executive officer of LimeLife Inc. "But they are only one-third of the [game] purchasing market right now, and we think that's because of what's out there. Right now, a lot of what's available on the mobile phones are action games, sports games. And we know from our experience – having been in the games industry for so long – that women like word games, puzzle games, card games."

Says Scott Rubin, Vice President of Sales and Marketing for Namco Networks, "it [mobile phones] is the only device maybe besides the PC – well let's put it this way it is the only mobile device – the only wireless device, out there that is a mass market device." Over the past few years, Namco has learned some very interesting things about the mobile market. For example, during 2007 casual games reached over 145 million people from ages 12-65. Also the average time spent per week playing casual games increased 28%, growing from 4 hours to 5.1 hours, from Q3 to Q4. Most interesting is that 33% of casual gamers played online with another person. And as we know, casual games appeal far more to female gamers than traditional (or hardcore) games, as well as a slightly older audience. Add to that, "game publishers and mobile operators are getting better at working together and becoming more active in the mobile gaming space," says Nguyen from earlier.

It's by no surprise then, that "hardcore" gamers don't consider mobile to be a viable gaming platform. Even though mobile technology keeps advancing rapidly, consumers still perceive the mobile market to be a casual haven. And according to Parks, casual games will remain the mainstay of the mobile market as these are low-priced offerings that are generally Java-based.

Currently, Java accounts for more than 74% of mobile platforms, globally. Other platforms include Windows Mobile, Linux, Palm, Brew, Brew, Symbian, Blackberry and iPhone.

Barriers Still to Hurdle

However, just under the surface there are potential barriers that could hamper the growth of mobile games. Among these is a lack of consumer awareness, the ever present difficulty in finding games in the first place, the complexity of downloading games to mobile devices, high data fees with lack of cost transparency, and mobile game piracy—especially in Asia. And let us not forget the costs and complexities of developing games compatible with hundreds of mobile handset models throughout the world. Another hurdle to size up is the simple fact that games aren't always as "sexy" a sell, as mobile video, music or maps (with GPS). It seems at least in some cases, mobile gaming has taken a backseat. This puts a greater burden on mobile game publishers to increase the expense of market reach. It also makes it harder for publishers to provide game placement with mobile operators. Hence, mobile game developers will need to be much more aggressive in expanding their role in the mobile market.

Conclusion

Mobile is obviously the future for any-time, any-where game play. But game developers and publishers still need to do a better job at connecting with the mobile market. And not only connecting in content but also in delivery to device. Growth in the mobile web is our best hope for overcoming some of these barriers in the near future. ABI reports, open-Internet browsers for mobile should grow from 76 million in 2007 to nearly to 700 million in 2013. But in this segment, at least for now, men dominate mobile browsing by 9-to-1. According to Opera, more than 14.7 million total users browsed 2.9 billion pages in May 2008 alone. And let's not forget about Social Networking as a key contributor and potential game market. This segment alone accounts for almost 40% of the global mobile web traffic.

The potential is out there. The question remains will game companies stay aggressive enough to out shine or at least shine as bright as our close cousins in the other media markets. Certainly, the momentum along with consumer perception is on our side. One thing is certain, like the Internet, mobiles are here to stay. Who knows, maybe we'll even see more "green" mobiles. Well, at least it would make for a nifty branding strategy. In short, it all spells opportunity for the casual game business, if we take it.

Casual Games at Retail

By Greg Zesinger, eGames

Introduction

At present, distribution of casual games at the retail level is a very different animal from online distribution. Online, a large number of portals specifically cater to casual game content, offering a huge number of casual games to consumers. In the physical or "brick and mortar" world, the situation is more of a mixed bag. While casual games, beginning with titles such Tetris or Pac-

Man in the 80s and 90s, followed by the Bejeweleds and Diner Dashes of the world in the 2000s, have experienced individual successes (e.g. Bejeweled 2 Deluxe has sold over 440,000 units as of Jan 2008 source NPD), the casual games space as a whole has not quite developed at the store level. Casual games are often found side by side or mixed in with core games. The trend appears to be changing however, as in early 2008, major retailers including Target and GameStop have indicated an increased push for casual games, with the prospect of retail sections specifically marketing casual games a very real possibility, although it is unclear when these sections will officially appear. In any event, as the casual space at brick and mortar storefronts continues to evolve, retail distribution of a casual title remains a viable and occasionally lucrative supplement to online sales.

A Brief History

The origins of casual games as we know them today at retail are hard to define, in part because the term "casual games" has no universally accepted definition[24]. By most accounts, casual games at retail arose through collections of shareware, originally distributed online before being packaged and sold on shelves, usually in the form of jewel cases (JCs) at a $9.99 price point. In 2004, PopCap brought Bejeweled Deluxe to the marketplace, and companies like MumboJumbo began packaging products in boxes, selling them at $19.99 before the titles trickled down to the JC level. JC slots were much more plentiful at this time compared to the current environment. For example, the world's largest retailer, Wal-Mart, at one time stocked approximately 300 JC titles per store. Today, that number has been reduced to 30, and even 15 slots depending on the location. Conversely, competition for those slots has increased as more developers enter the space.

PC game packaging has undergone a metamorphosis as well, with boxes evolving from a mixed bag of shapes and sizes to a much more streamlined, uniform look. Over the past three years, movements for an industry standard for PC box packaging have launched, most notably supported by Electronic Arts and Microsoft with its Games for Windows initiative. The Games for Windows initiative, featuring a stylized look with special logos is designed to level the playing field between in-store PC game and console retail sections, establishing Windows as a gaming platform mentioned in the same breath as the Playstation, XBOX, and Wii. While not widespread as of yet, Games for Windows packaging and marketing may be found in most major retailers in 2008 including GameStop and Target.

[24] Per the 2006 IGDA Casual Games White Paper (http://www.igda.org/casual/IGDA_CasualGames_Whitepaper_2006.pdf), p. 9

Market and Audience

The typical casual game retail consumer would seem to be very similar demographically to the online customer, headlined by females 35+.[25] Both sets of customers tend to have similar tastes in terms of genre, favoring hidden object, time management, and match three games. However, retail does capture a portion of the audience that is either unwilling to use their credit card for online purchases, lacks the knowledge and/or Internet access to purchase a downloadable game, or is interested in purchasing a physical gift they can put a bow on.

The major difference between the two customer types is the amount of time they can devote to an individual title. Online retailers have a seemingly infinite amount of "shelf space", with some sites carrying in excess of 500 titles at a time. However, this apparent endless supply of space is deceiving as the customer is only initially exposed to the handful of titles that are featured on each portal's front page. Customers must have at least a decent idea of what they are looking for in order to seek out a specific game that is not on the front page. Retail shelves, on the other hand, can expose the customer to hundreds of boxes at a time, if the shopper is willing to spend the time to review each individual package.

Herein lays the main difference. Once the shopper finds a title that appeals to them online, they will generally download an hour trial and test out the game at their leisure. At the retail level, the game and its package have only a matter of seconds to catch the customer's eye amongst a virtual sea of other titles. The game and its packaging must be compelling enough that the customer will not only take the game off the shelf to review it, but the packaging, if the shopper has had no previous experience with the game before online or via advertising, must convince them to walk the game to the cash register and make the purchase, all without the benefit of a trial.

Retail purchases in the casual games category, particularly at the $9.99 level, are often impulse buys for the customer, meaning that the shopper walks into the store without planning to buy the specific game, but is won over by any of a combination of packaging, price, branding, game concept, or promotion.

Business Models

According to the Casual Games Market Report 2007, developers report an additional 10% in revenue distributing their downloadable games at the physical retail level. This percentage, along with the corresponding publishing deal, can vary greatly depending on the game. Typically, a publishing deal grants a percentage of sales revenue to the developer less cost of goods sold. Cost of goods sold (COGS) can include packaging and disc replication costs,

[25] http://www.gamedaily.com/articles/features/realnetworks-casual-games-are-the-new-daytime-tv/?biz=1

fulfillment (product storage and shipping), and marketing costs. The royalty rate tends to range from 0-50% and fluctuates depending on the size/presence of an advance.

An advance is often (but not always) offered to the developer as part of the agreement, paid against future sales of the game. Advances can fall anywhere between $0 and $100,000, occasionally creeping beyond. For example, Game Developer X reaches a publishing agreement with Publisher Z for a 40% share of revenues (less COGS) and a $20,000 advance If the game is selling at $19.99, the developer would receive $8 per unit (less COGS), generating net revenue of approximately $3-5 per unit at a 40% share.

Cost of goods and other terms will differ from company to company, but should be spelled out within the contract.

Game Selection

Competition for shelf space is fierce at the retail level and whether a game gets placed at the retail level depends on a multitude of reasons. The following factors are key in presenting a title to retailers for potential distribution:

1. Online Success – Retailers are increasingly interested in the online conversion rates for games, showing a preference for titles that perform at a high level on the portals.
2. Packaging – Retailers look to their suppliers to provide packaging that will overcome their customers' short attention span. The packaging must sell the game. Additionally, some retailers have specific requirements for the type of packaging merchandised in their store.
3. Brand and/or License – A game featuring an established brand or license can help sell a game to a retailer, capitalizing on past success and established brand awareness.
4. Retail Familiarity with Developer/Publisher – All things being equal, a new title presented by a publisher who has already established a positive relationship with a retailer stand a better chance of placement than a game presented by a previously unknown entity.
5. Price Point – Space for boxed titles tends to be slightly more competitive than jewel case space, if for nothing else, the opportunity for increased revenue on a per piece basis.

Presentation and Production

After a game has been selected for retail distribution by a publisher, sales presentation materials and packaging must be generated. In most cases, high resolution artwork from the game (or created specifically for the sales collateral) is used. Depending on the retailer and buyer, games can be informally presented at any time, but generally, each retailer has a few formal game reviews each year, coinciding with the number of times their store (or specifically, the layout of their PC game section called a planogram) turns over in the year.

For example, if Big Box Retailer A's PC game planogram changes over in May, they will hold a formal game review several months in advance to choose any new additions to the space. The

success of the current titles in the planogram, along with how much inventory the retailer has on hand (and how much the publisher can/will take back), helps dictate the number of new titles that are added to the mix in the next go-round. Retail launches do not necessarily occur within a set number of months following online launch. In some cases, a game could be available online for over a year before gracing the retail shelves. For example, TikGames' Interpol launched online in August 2007, but the retail version was not published to retail until late fall 2008. eGames' Burger Island first appeared online in May 2007, but checked in on retail shelves that October.

Before reaching those shelves, packaging must be produced and discs must be burned. Typically, thousands of packages and discs are created initially to capitalize on volume discounts. In the event that demand for the game does not meet expectations, these extra packages and discs can be consigned, sold at a discount, or even destroyed.

Depending on the retailer, in addition to production costs, the publishing party will also need to invest marketing dollars in slotting fees (an upfront cost retailers require for placement on shelves), and advertising (for casual games, usually in the form of weekly or monthly store periodicals).

International Publishing

Depending on the negotiated terms of the agreement, the publisher may look to distribute the game internationally and require localization of the title, which usually involves providing a new version of the game translated into any number of languages including, but not limited to, Spanish, French, German, Italian, Russian, Portuguese, and Dutch.

Key Publishers, Distributors, and Retailers

Publisher

Brighter Minds Media www.brightermindsmedia.com
Cosmi www.cosmi.com
eGames www.egames.com
Electronic Arts www.ea.com
Elephant Entertainment www.elephant-entertainment.com
Encore www.encoresoftware.com
iWin www.iwin.com
MumboJumbo www.mumbojumbo.com
PopCap Games www.popcapgames.com
Valusoft www.valusoft.com
Viva Media www.viva-media.com

Distributors

Activision www.activision.com
Atari www.atari.com
Navarre www.navarre.com

Take Two www.take2games.com

Major Retailers

Wal-Mart www.walmart.com
Target www.target.com
Best Buy www.bestbuy.com
Circuit City www.circuitcity.com
GameStop www.gamestop.com
EB Games www.ebgames.com
Office Max www.officemax.com
Office Depot www.officedepot.com
Staples www.staples.com
Toys R Us www.toysrus.com

Casual Games on the Macintosh

How would you like to increase your game's lifetime revenue by 5 to 15% with only a couple more weeks' worth of work? Support Mac! Don't leave money on the table. Games developed in Flash (or other portable base), can usually be quickly ported to Macintosh. In some cases, existing proprietary API's might also need to be converted for compatibility, however once this work is done, your entire catalog of Flash games can be released to the numerous Mac portals. Most of the larger developers simply incorporate Mac API's into their SDK, making the transition from PC to Mac almost seamless. And yes, we know that nothing is ever seamless!

Sales

A solid single player, downloadable Mac title can sell 10 to 25 units per day on the larger game sites, with an initial curve of up to 50 units per day utilizing a "try before you buy" download. Multiply this across the top Mac portals and then again across the various available games in your catalog and this could be an excellent revenue opportunity, which could score you an additional 10% (or more) in sales!

Working with Apple

You should become a registered Mac developer if you are serious about releasing Mac titles. Registered developers get you access to current SDK's, Apple Developer Support, Mac Developer Mailing lists and best of all, the ADC Lab (Compatibility Lab). Every Mac developer who has time to travel to Cupertino should take at least one of their applications to Apple's compatibility lab. This great resource offers a huge range of Macs as well as older Apple systems, such as the Lisa and Apple II GS.

Conversion Rate

It is common knowledge that Mac owners are some of the most loyal customers around. This extends into their purchase habits of casual games. When queried, the major Mac portals all stated that Mac titles have at least as high of a conversion rate as PC titles, and in many instances up to 3.5 times higher than PC.

DRM

Unless you plan to sell your Mac titles on your own website, DRM is probably not an issue. This is because most Mac distribution partners have their own internal DRM. A home brew DRM scheme can be developed in about a week or so, but don't expect it to be as secure as ActiveMark or Digital River. If you do choose to create your own home brew DRM, remember that you'll also need to find a solution for eCommerce, as it's not as turn key as selling PC games. For example, in PC games, you can hook into Trymedia for both DRM and eCommerce. As of the writing of this paper, Trymedia does not support Mac. Therefore you'd need to find a way to link your DRM to online commerce.

Distribution Partners

The following is a short list of potential portal partners to contact for distribution of your Mac games. Some partners (such as RealArcade) require the same PC version is already available on their site prior to accepting a Mac title. Other partners sell only Mac games.

- RealArcade / Gamehouse - gamesubmissions@real.com
- Reflexive Entertainment – 949-830-1903 x30
- MacGameStore.com - tuncer@insidemacgames.com
- Big Fish Games – gamesubmissions@bigfishgames.com
- TransGaming, Inc – cider@transgaming.com, (416) 979-9900

Appendix A – Casual Games Meet Serious Games

By Kenton White, CTO, Distil

Introduction

Serious Games, in their broadest sense, are games that have a purpose other than entertainment. This doesn't mean that serious games are not entertaining, just that other there is other objectives.

Despite this broad definition, the genre of game most closely associated with Serious Games is the military sim. Military sims are among the oldest professional examples of serious games for many reasons. The military has a long history of investing in simulation technology, so co-opting gaming technology could be argued as a natural extension. Recent advances in gaming hardware and software techniques, when applied to military sim problems, is actually a cost reduction. Middleware, such as Unreal Engine, made game creation tools readily available, plus an explosion in teams that knew how to use these tools to make games. And gaming technology had finally "come of age" where the fidelity and realism possible met the minimum military requirements. Put another way, for the cost of a $300 console, the military could deploy the same simulation experience that previously required a half-million dollar Silicon Graphics work station.

Games such as America's Army and Full Spectrum Warrior set the bar in terms of graphics and gameplay for many subsequent serious games in non-military fields. Projects such as Virtual Leader (corporate management game) and Pulse! (medical simulation) all featured advanced AI and a fully functional 3D engine. A dominant direction of Serious Games was being defined. Games in this space were being modeled on successful triple-A titles from the entertainment world. In addition to First Person Shooters, real-time and turn based strategy games were another popular genre.

The deep pockets of early serious games adopters, organizations like the US military, made it possible to pay for budgets to make triple-A styled titles but with a more serious bent. Persuasive Games – another form of serious games that focused on changing people's viewpoints or advocating social causes – lacked the luxury of similar budgets. After all, if your goal is to make a game to showcase the environmentally unfriendly practices of McDonalds, such as "McDonalds Videogame" did, it is unlikely that McDonalds will fund the project.

The budgetary limitations necessarily focused these developers to use cheaper production methods. This, in turn, led to persuasive games resembling many Casual games. Flash and Director are popular platforms. Most are distributed on-line, either as small downloadables or

web imbedded games. Many use 2D graphics, and those with 3D graphics have lower polycounts and lower resolution textures than their triple-A counterparts.

Because of these two, roughly parallel paths in serious games, the casual game development companies were unfortunately left on the sidelines. Projects that could afford to pay developers for their time focused on console and PC developers. Projects that could use the skills of casual game developers often had no budget.

Now the time is coming for Casual Games developers to take advantage of the Serious Games space. Recent projects, such as Cisco's "Binary Game" and GameLab's "Cost of Life," are showing that casual games are a viable medium for serious games. This article exams why organizations are starting to deploy casual serious games, rather than triple-A inspired projects. It also exams why casual games developers should pay attention to this space and how they can become involved.

Reasons for Casual Serious Games

While many of the initial commissioners of Serious Games projects paid a premium for console quality graphics and deep gameplay, newer organizations interested in serious games for their purposes are starting to look at casual games as a gameplay model. There are many reasons for this new interest in casual games.

Demographics

In the military, games worked because the target student was young, about 19 years old, and was already conversant in the language of video games. The training platform was ideally suited for the training audience. Early forays into the corporate market tried to make a similar argument. To effectively reach the new demographic worker, traditional training methods, such as movies and classroom instruction, would need to replaced with a medium that was more in tune with the younger work force.

Unless your organization had a large workforce in their early twenties, such as large commercial retailers, the coming shift in demographics made little short term sense. Sure, eventually your entire workforce will be video game savvy, but that tipping point is still a long way off. The reality today is that a significant portion of workers needing training are not video game literate. Moving to games modeled on triple-A console titles might not be the most effective way of reaching a large training demographics.

Casual games fit the corporate demographic reality better than console games. One distinguishing characteristic of casual games is their design emphasis on gameplay and control schemes for a less hardcore market. Traditional board and card game mechanics often serve as inspiration for casual game design. Puzzle and matching elements are emphasized over timed and reflex based challenges. Control schemes are simpler to their console and PC brethren, some using simple point-and-click interfaces.

All of these reasons make casual game design and production methodologies attractive to serious games projects. Using ideas from the casual games space, serious games can be effective with learners who are not video game literate – even to users who are afraid to try traditional video games.

Play time and structure

Another issue for corporate training is finding the time to train your employees. Classroom training takes the employees away from their jobs, which results in lost productivity. An early rallying cry for serious games was that the gaming element would make a training product that was so immersive and entertaining that employees would want to do the training on their own time. This is an admirable design goal and products that succeed in this area are great. Cold Stone Creamery's Stone City (Persuasive Games) inspired player to add their high scores to their MySpace and FaceBook pages. And employees at the Canadian Standards Association have been known to play a few rounds of their emergency preparedness training product Reponse Ready (DISTIL Interactive) while relaxing at home.

Having employees want to do training on their own time does not solve the problem for the training manager. Very few organizations feel comfortable requiring salaried employees to do job related functions at home. Hourly employees must also be compensated for most work related activities – including training. Even if the training is entertaining, it is still something that most organizations want done on company time. Sometimes training is a time-sensitive activity, such as ensuring that all employees have received training prior to an audit. Even if the training is more entertaining and motivating, training managers still want the experience to take less time.

A common goal is to provide training in 10-15 minute chunks. This session time restriction fits very well within the casual game framework, which focuses on designing for shorter play sessions than traditional video games. Casual game progression models provide clearly delineated breaks in the action that invite the user to take a break and come back later. Level design emphasizes a shorter play time, with each level often being completed in ten minutes or less.

When time is a scarce commodity, casual games are better suited to offering compelling experiences in short play sessions than the more time-commitment heavy console and PC games.

Network delivery

Companies are acutely aware of the cost of deploying resources to their employees. Internal supply management and logistics can be a real headache, especially when it comes to software. Most corporate IT departments prefer to pre-load machines with required software before providing the machine to the user. Updates and new software are provided over the local

network. This reduces the cost of maintaining physical media, supporting the hand installation of software, and the help desk support for users having difficulty with installation.

These same rules apply to training software. Serious games that require installation from a disk may lose out to similar products that can be distributed over a network. The type of game experience that casual games provide is not compromised by small code foot-prints or browser based delivery. Games that try to be like triple-A titles may feel compromised if they are stripped down to network delivered size.

Some retail games are being successfully delivered via online services such as Steam. Similar services may enable larger serious games to be delivered over the network, but this will take time before corporations embrace these types of delivery methods.

Cost structure

Finally, casual games better fit the new cost structure for serious games. Most of the organizations with the budget and desire to afford million dollar budgets for game development have done so. Organizations that feel they need to have the triple-A gaming experience on an ongoing basis are beginning to realize that it is cheaper to hire in-house talent than commission large projects. Million dollar budgets for serious games are becoming the exception.

Because of the ground-breaking, large Serious Games projects that have been done, many more organizations want to move to games based training. Budgets are coming down to the $50K to $100K range. While this is a paltry sum for traditional titles, the price fits well with the cost of many browser-based casual games.

With this new costing model, customers are aware that they must make tradeoffs. They are willing to take 2D graphics over 3D graphics. They can also live with less sophisticated AI models within the game. The scope of the game can be scaled down to a point where it focuses just on the training essentials. Rather than pointing to the latest real-time rendered first person shooter and saying “I want that, but with accountants,” they are now modeling their expectations on the latest match-3 web delivered game.

Reasons for developers

With many serious games projects going casual, there are becoming more and more opportunities for casual games developers to enter the space. But this is not a gold rush for the next big thing. While there are many advantages to this space, one must understand really how a casual game developer can make a difference and why working in the space can be beneficial.

Leverages current skill set

The biggest reason for an existing casual games developer to develop serious games is that their in-house skill set is becoming more closely aligned to the shifting needs of the market. Making casual games involves a different skill set than that of larger PC and console games.

For casual games developers, serious games production can overlay on the existing product line. This alignment of competencies can allow a small casual games developer to complete a project for less than a larger studio. Given that the company's main line of business is creating small games, the customer can be confident that they are getting a team with experience delivering the type of content required.

There are some key skills the average casual games studio might be missing. One important person is the instructional designer. Very similar to a game designer, this individual determines what the learning objectives are, how to design the content and curriculum to achieve these goals, and how to assess whether the goals are met. Another role is that of the subject matter expert. The subject matter expert brings professional experience to the process, ensuring that the content is technically accurate.

The good news is that instructional designers and subject matter experts are probably employed by the organization that is commissioning the game. If this is the case it makes sense to include access to these individuals as a condition on doing the project. Otherwise it may be possible to bring in the needed expertise in on contract.

Either way, it is crucial to have a highly competent project manager. Working with an external instructional designer and subject matter expert requires excellent management skills. Learning goals and objectives are not easily retrofitted onto a nearly complete game. Changes to the instructional design or technical content may affect the core game mechanic or scope of the game. These individuals must be managed as part of the internal team, even if they are also part of the organization that will also give final acceptance of the product.

Additional revenue stream

Making serious games can provide an excellent additional revenue stream. Most projects are one-off, work-for-hire contracts which ideally can be scheduled in-between the studio's core projects. Many companies will already have a design document complete and will be looking for a company to execute. Such a project can be fit into the pre-production phase of another project. It can keep the development team busy (and paid for) while the next game design is being worked out.

Many traditional game studios found serious games an excellent source of cash while waiting for the revenue stream of an entertainment title to kick-in. In the casual games space, where many studios self-fund their projects, a 2-3 month delay in revenue can be disastrous. Planning a serious games project at the end of an entertainment release can buy a few months of buffer on the revenue side.

This additional revenue stream does not come for free. There may be long term costs that have to be factored in. One is technical support for the title. The commissioning organization may not have the internal skills to fix problems that arise or may have explicitly contracted the

developing organization to handle the technical support for the title. If the game has an expected life of a few months, for example a game supporting a product launch, then support is a time limited activity. But a game that has an open ended lifespan may require a long term support commitment. Many organizations commissioning serious games have never done a game based product before and are unaware of the long term hidden costs. They are relying on the developer's experience to highlight and plan for these costs. Not doing so may eat a large percentage of the additional revenue that project brought in.

Lightweight & local Business Development

Lastly is the studio's ability to acquire potential business in the serious games space. The good news is that this can be a lightweight activity done on a local scale. Many organizations would like to commission a game but don't know how. Attending local business networking functions can uncover many leads. Most professional associations have local networking functions. For example, Distil (the author's organization) often goes to local chapter meetings of the American Society for Quality, the Project Management Institute, etc…

Many cities have entrepreneurship centers, industry advocacy groups, and local chambers of commerce. These groups often host networking functions for business professionals.

Local governments also may be looking to commission a serious game project. The key with governments is that any project must go out for public bidding. By working directly with local governments in the planning stage, it is possible to get the contract request tailored to a specific set of skills that match your organization exactly. Another way to increase the chances of winning a government bid is to work as a subcontractor for a larger organization that has experience in the government bidding process.

A large number of organizations looking to commission a serious game project will attend a game development conference to find a developer. Conferences that your studio is already attending may have many opportunities for finding projects.

The key is effective networking. There is no magic bullet to replace this crucial skill. A casual game developer without a skilled networker will have a harder time finding business than a developer with these skills. Realizing this up front can be a crucial factor in determining if this space is right. With a good business development person, many developers will find that getting some serious games work is a small incremental investment.

Market Size

Since the Serious Games market is still in its infancy, it is difficult to estimate a total market size. It exists at the intersection of two large, established markets: e-learning and video games. The e-learning market is $2B annually while the video gaming market it $30B annually. Conservative estimates put the intersection of these two markets at 5% or $100-200M annually. Both markets are growing fast, e-learning at a rate of 20% and video games at a rate of 40%. A recent

ESA survey shows that 78% of businesses plan to adopt some form of immersive training in the next 5 years. With this projected growth the market is expected to reach $1B by 2012.

Conclusion

Serious games are more and more looking like casual games. Organizations commissioning serious games projects are finding that casual games are a better fit to their needs than more traditional games projects. This means that casual games developers are becoming the best choice for implementing many of these projects. With a little bit of work, it is not too difficult to fit the new business requirements into an existing casual game studio's business.

Appendix B: Casual Games in India

By Deepak Abbot, Director, Casual Games, Zapak.com

Who is the Indian gamer?

There are a few statistics which are quite well known about the gamers in India. As per ICube 2007, there are about 2.8 Million online gamers in India, and about 75% of these gamers are males. I-Cube (Internet In India 2007) is one of the most extensive researches undertaken amongst the Internet users in the country and covers about 65,000 individuals across 20 cities of the country. (http://www.iamai.in/Upload/Research/I-Cube-2007-Summary-Report-final.pdf)

Again about 72% gamers are from higher two affluence strata (SEC A & B – People with graduation & above are classified under these socio-economic classes and almost 80% of the gamers would be from the Top 8 Metros – Delhi, Mumbai, Chennai, Kolkatta, Bangalore, Hyderabad, Pune and Ahmedabad. Interestingly 99% of the gamers are from the metros which house only 30% of the country's population.

*Chart : **Online Gamers by Town Class and SEC***

Based on the level of involvement, online gamers can be further categorized into Casual gamers & Core gamers.

Casual Gamers

This genre of gamers constitutes of those who play for the sake of having fun or for a quick break. When in office, they find time in short intervals to play for 10-15 minutes. When in Café, based on the time left for their session to complete, they get on to gaming. Casual games typically may be classified into Action, Arcade, Board/Card, Racing/ Driving, Puzzles, Sports and Strategy games. Various games sites have put up either all or majority of these genre of games.

Core or Serious Gamers

Core gamers spend at least 4-6 hours a week gaming and play LAN based, MMOGs & MMORPG's. There may be many reasons which drive this genre of gamers to game online. They

are community based gamers, who generally have a peer group into gaming; they prefer multi-player games over single-player games; and are not as easy to understand as the Casual Gamers.

What drives them to game?

They have been classified into four broad categories based on possible motivators to game.

TYPE OF CORE GAMERS- Psychographics	
Subjugator	The first category of serious gamers believes that there is a challenge in a game to overcome and feel they can master everything. They may want to show off, but are driven by an internal strive to defeat very challenge
Networker	They are the social interacting genre of serious gamers. The main motive of gaming in a multi-payer situation is to have a good bonding experience with people. They feel it an opportunity to meet people and develop relationships
Escapist	As the name suggests, they game for the promise of escape. They had faced difficult situations and challenges in their real life or are complacent. They game to face and overcome artificial challenges; to satisfy themselves by being completely opposite of their original self
Learner	Their main purpose to game is to explore different environments and conditions with a motive to learn something from their experience and then progress and excel in it. Their main aim to hone their skills in everything possible

In India also most of the gamers play Casual games. But unlike the developed gaming markets, the casual games market is youth driven segment, mainly by those males who are in the age group of 17-28 years old and have been online for more than 2-3 years. This is the reason that browser based flash or shockwave games are popular in India as compared to downloadable games which are more driven towards female over 30. So categories like racing & action are popular as compared to puzzles or strategy. Popular casual games in west like Zuma, Bejewled, Diner Dash, Cake Mania etc. have not done well in India eventhough they are priced at US$3-4. Most popular casual games in India would include EA Cricket, Brian Lara Cricket & NFS in offline category and numerous cricket & racing flash games on popular games portals like Zapak.com (Source: I-Cube 2006).

Currently, the casual gamers lead the gaming industry in the country, while the community of hardcore gamers (defined as those gaming for than 4-6 hours a week) is limited to a mere 2-3% of the total gamers in India.

Drivers of Online Gaming in India

Currently the driving force of online gaming in India is the strong above the line marketing push done by cash rich companies like Zapak.com. Zapak spent US$7 million in Nov 2006 to launch its casual games portal which instantly created a new genre in Indian internet history. Zapak today has over 5.5 million userbase only from India which is a big feat considering there are only 3 million broadband connections in India.

Marketing blitz by one company may not be sufficient to build the entire industry unless the entire ecosystem falls in place. The factors that will drive the future growth of online gaming market in India can be broadly classified as:

- Consumer Pull
- Game development activities by market incumbents

Consumer Pull

- **Size of youth segment**- The youth segment, which is the biggest segment on the Internet, is driving the demand for games on multiple platforms like PC, mobile handsets and consoles. The gaming market in India comprise mainly of young men and college going students falling within the age group of 17–25 years. They form the largest segment of the active internet user base; are more technology savvy and most of all carry an attitude to try everything new.

- **Increasing broadband penetration** in Indian households will drive usage of online gaming and vice-versa as the gaming experience is enhanced due to higher speed and bandwidth when compared to Dial-up connections. International experience suggests that online gaming took off as in-home penetration of broadband increased in countries like South Korea & China. Broadband ISP's are also offering Games on demand packages to users to encourage them to spend more time online. Indiagames.com who provides this service has tie-up with all leading broadband providers and they charge Rs.225 (US$5.25) per month as subscription fee. They have been providing this service from last 2 years and with almost 80% reach in broadband homes, they are reported to have around 10,000 monthly subscribers. This number is really small considering the current market size. Lot of companies including Zapak, Indiagames, Games2win & Kreeda are launching their casual MMOs which should propel the demand for broadband in future.

- **Entertainment seeking behavior on the rise**: Entertainment appeals to internet users of all age, gender and affluence. As a genre, entertainment related applications are accessed by 54% active internet users (Source: I-Cube 2006). Online gaming will add

another platform to whet the appetite of Indian users. Causal games can be positioned as another arena for entertainment to appeal to non-core segment like women and older men (who are not yet online in significant numbers).

- **Increase in Mobile gamers**: Mobile gaming has grown many-fold in India and downloads of mobile games is a fast growing component in the overall Mobile VAS pie. Mobile gaming is serving to introduce a large base to gaming and almost all mobile games in India are casual. Over a period of time many users who seek an enhanced gaming experience can be graduated to online gaming.

Based on above understanding of the dynamics of Indian market, here are the broad indicators of the Indian Gaming Market:

Gaming Industry Forecast for India

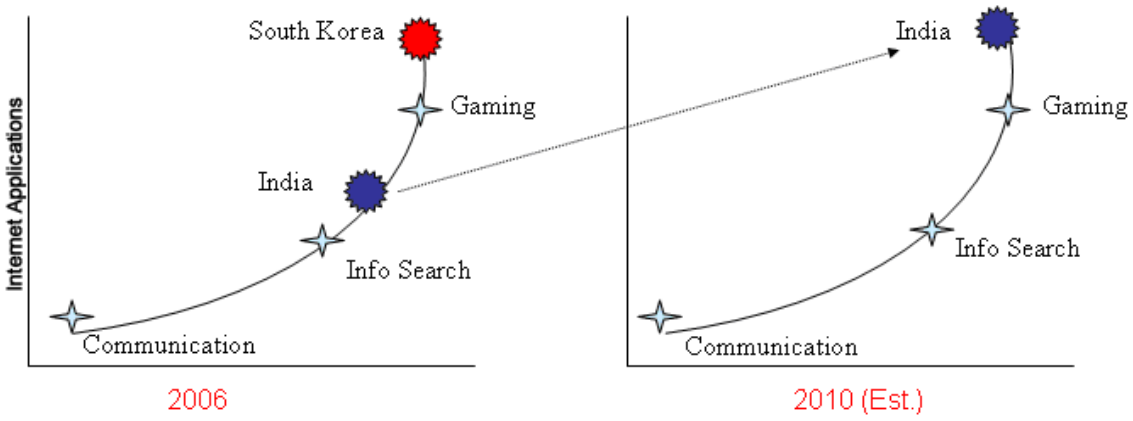
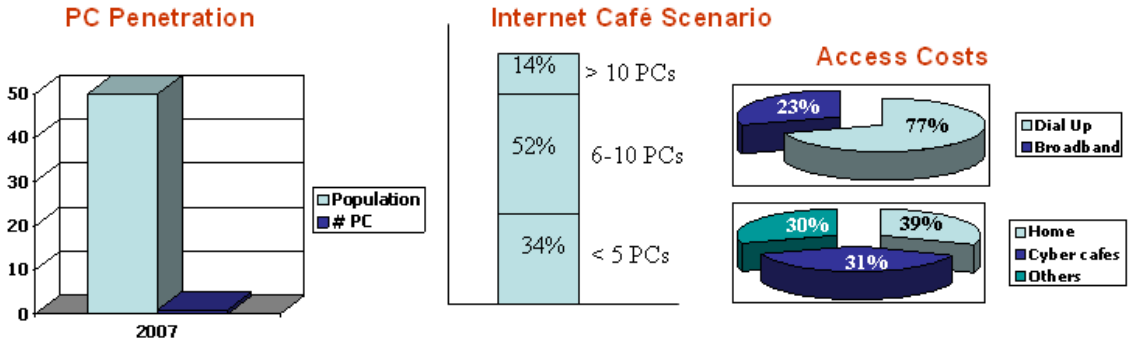


Figure: Application Evolution Curve

1. Market set to explode from Rs.500 Mil to Rs.4000 Mil (2010)
2. Casual games market to grow 10 times from current US$2.5 Mil to Rs.US$25 Mil by 2010
3. Online Gaming to contribute to 75% of revenues of cyber-cafes by 2010
4. Gamer base to grow from 1.3 Mil in 2006 to 14.1 Mil in 2011 (CAGR-63%)
5. Subscription Revenue to grow from USD 1.2 Mil in 2006 to USD 72 Mil in 2011 (CAGR-126%)
6. Over 550 Mil Indians are <25 years
7. # of active Internet users grew from 11% in ’04 to 25% in ‘06

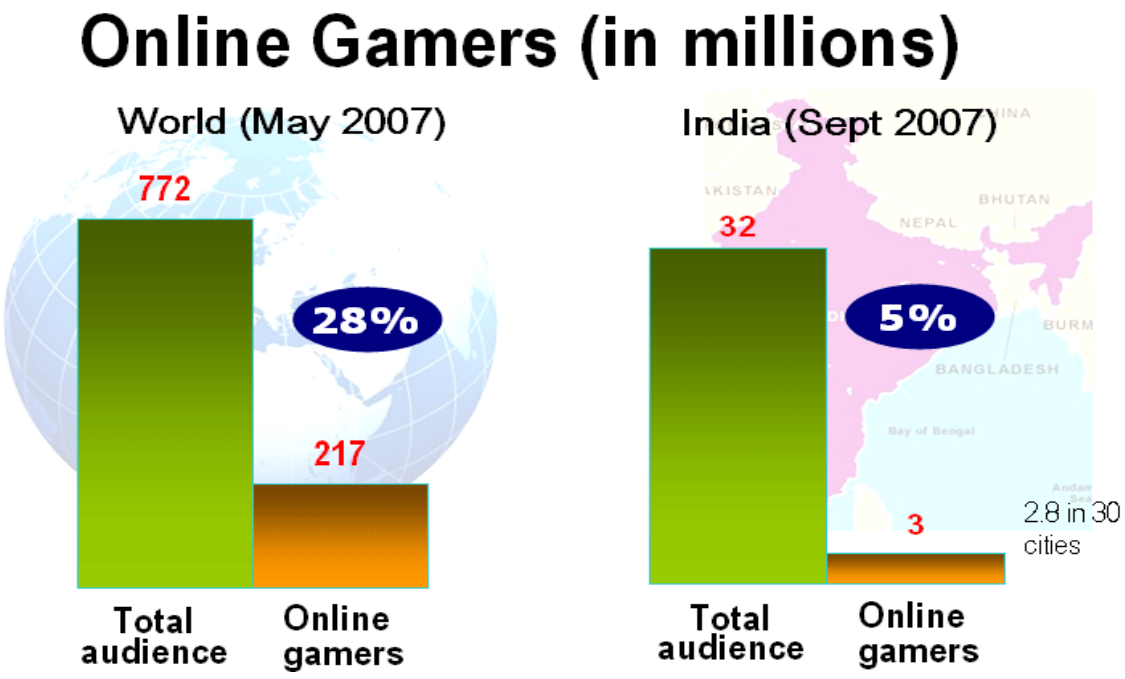
Sources: eTechnology Group@IMRB & IAMAI (http://iamai.in/Upload/Research/OnlineGaminginIndia-March2007.pdf)

The Growth Impeders

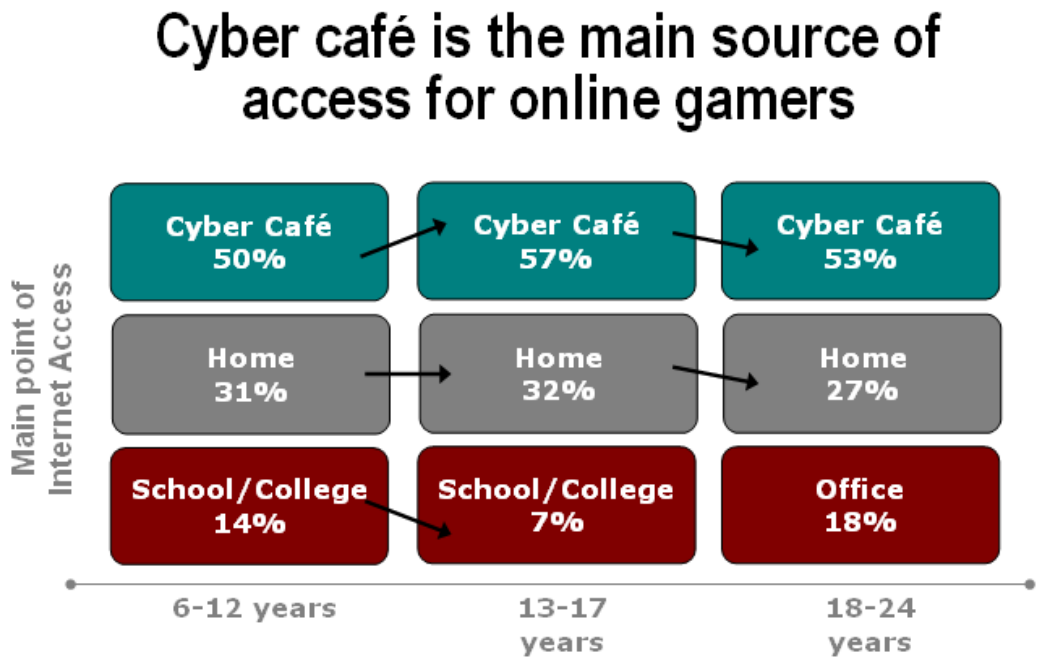


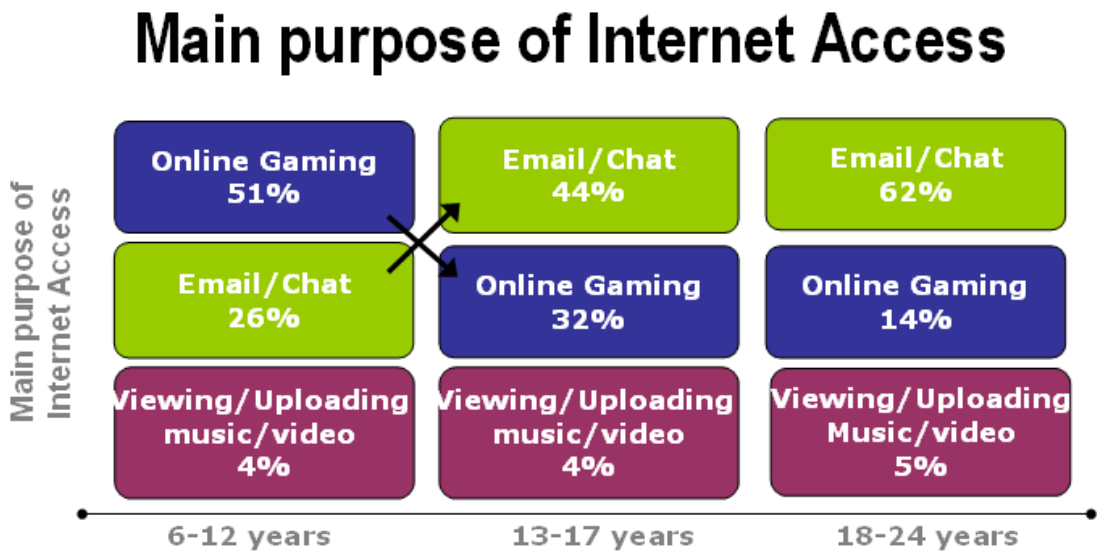
source: IMRB e Technology Group

- Controlling the Internet drop out rate is key for stickiness. Currently most ISPs are reporting 10-15% drop out every month.
- Broadband penetration low in Towns with population less than 1 million
- Internet still an urban phenomenon
- Control and Monitoring Issues at access points like colleges & offices where the access is limited due to fears of misuse and inadequate monitoring
- Initiating traditional segments into Gaming



source: iCube 2007





**Source: IMRB online gamer Study in 5 top cities – Oct 2007*

Ways to grow Internet & Online gaming market

Technology Enablers:

- Broadband making in home internet access attractive.
- Government & Corporate Digital divide programs increasing access amongst rural areas & urban lower SEC's.

Access Enablers

- Cost of PC's coming down
- Internet on mobile becoming a realistic solution considering there are 272 million mobile phone subscribers in India.
- Cyber café's penetrating villages & proliferating in small towns. There are 50000 unorganized cyber cafes in small towns

Content Enablers

- Regional language online content coupled with extensive reach in suburban areas where English is still not widely accepted. Top 8 metro cities would not see much growth in gaming if content is available in local language.
- PC's with regional language interface
- Search in regional language
- Content specific to deficient segments

Awareness Enablers

- Large scale education programs
- Positive word of mouth creating a strong pull.
- Lure of convenience pulling in first time users

Key Players in Indian Market

Zapak Ltd. (www.zapak.com) – Casual Games Portal, MMOG Publishers, Gaming Cafés, Game Cards

Games2Win (www.games2win.com) – Casual Games Portal

Indiagames Ltd. (www.indiagames.com) – Games on Demand, Mobile Games Developers & Publishers

Hungama (www.gaminghungama.com) – Online Multiplayer Games, Mobile Games Developers

FX Labs (www.fxlabs.com) – Online Games Portal, Console & PC Games Developers

Kreeda (www.kreeda.com) – MMOG Publishers

Level Up India – MMOG Publishers

Dhruva Interactive (www.dhruva.com) – Game Developers

Jump Games Ltd. - Mobile & Online Game Developers

Raptor International - PC & Console Game Developers

Trine Entertainment – PC & Console Game Developers

Appendix C – Contributor Bios

Section Editors

Dave Rohrl – Lead White Paper Editor, Section Editor for Derivative Products and Appendices

Dave Rohrl has been producing and designing games professionally for more than 15 years. Currently, he serves as Creative Director for Casual Games at Zynga where he manages the game design and staff for Zynga's casino and casual games which attract nearly 2 million unique users every day. He is also currently serving as the chair of the IGDA's Casual Game SIG and a member of the AIAS panel on casual games. He also is one of three organizers of GDC's Casual Game Summit. Previously, Dave founded and ran PopCap's San Francisco development studio, and founded and managed development for Pogo's downloadable games line. Dave has led design and/or production on more than 40 published games including such internet hits as Word Whomp and Tumble Bees, and served as executive producer on over a dozen more. In addition to his work in casual games over the last 9 years, Dave spent more than 6 years building leading edutainment titles for The Learning Company.

Jonathan Greechan – Understanding Casual Games

Jonathan Greechan has been deeply involved in the product management, licensing, distribution, production and B2C/B2B marketing of online casual game media and technology since 2004. Currently, Jonathan is the Principal/Owner of Combustible Media Group (www.combustiblemediagroup.com), an online media and marketing consultancy. Previously, Jonathan was the Product Manager for Online Games for RealNetworks, Inc, where he oversaw the casual games community toolset and content product strategy, roadmap, and execution. Jonathan joined RealNetworks via their 2007 acquisition of Game Trust, a leading casual games community platform company, where he was integral to both the company's growth and exit as the Director of Games & Marketing. He was also vital to the production and publishing of eight downloadable casual games; including "Shroomz," which won a Billboard award for the "Web/Downloadable Game of the Year" of 2004. Jonathan was previously the youngest member of the IGDA's Online Games SIG Executive Steering Committee, and his writing has been published in Gamasutra and Casual Connect Magazine. He graduated with a B.A. from Villanova University and received a Graduate Certificate from New York University.

Michelle Lee – Ad-Supported Games Section

Michelle has over 11 years of consumer and B2B marketing experience with high-tech, publishing, gaming and consumer products. She has been in the casual gaming industry since 2006 where she was the marketing director for an award winning, multiplayer mobile gaming company leading key marketing and ad partnerships. In 2007, Michelle led an original marketing campaign bridging casual gaming profits to aid social justice issues specifically helping to end

worldwide child slavery and trafficking. She recently left her role in marketing at a leading casual gaming ad network to lead mobile marketing initiatives for a major consumer company.

Brian Robbins – Advergaming Section

Brian Robbins currently serves as Gaming Evangelist, Fuel Industries. Brian has been active in the online gaming industry since 1999 and is widely recognized as one of the most influential developers in online gaming today. He is co-founder and chair emeritus of the International Game Developers Association's (IGDA) Casual Games Special Interest Group (SIG), and has also served as Chair for the IGDA's Online Games SIG. An accomplished developer, Brian has been the lead programmer on over 70 published titles, with contributions to more than 100 games. He recently relocated back home to Denver, CO and has started a studio for Fuel initially focused on iPhone game development with a broader mandate to look at all new Gaming Platforms.

Dan Prigg – Try and Buy Downloadable Section

Dan Prigg is General Manager, Publishing & Programming in the Games division at RealNetworks. Mr. Prigg's primary responsibilities include managing all publishing activities. He is responsible for the programming of global services from direct-to-consumer to syndication and works with more than 160 active partners to launch and maintain the RealGames global distribution channels. Prior to this role, Dan served as Senior Director of Games at Real and was responsible for overseeing third party licensing and pc publishing. Dan started his career in gaming at Humongous Entertainment, and now has more than 10 years of experience in the industry.

Juan Gril – Console Download Section

Juan Gril also wrote significant portions of the Ad Supported Games section and co-authored the entire Console Download section

Juan serves as Studio Manager at JoJu Games where heads the production of all titles. Joju produces Casual Games for web, PC downloads, consoles and mobile platforms, and for clients such as RealArcade, MTV Networks, Comedy Central, and Nickelodeon. Previously, and as one of the first members of the Yahoo! Games team, Juan was the lead producer for the downloadable games area and community manager of multi player games. In the last year of his tenure at Yahoo!, Juan was the head of Yahoo! Games Studios.

Juan is one of the editors of the IGDA Casual Games White Paper, an advisor at the Casual Games Association, and is a frequent speaker at industry events. Juan holds a BFA in Electronic Media from the University of Illinois.

Steve Meretzky – Skill Games Section

Steve Meretzky (steve@boffo.us) is VP of Game Design for YouPlus, one of the leading creators of social network games. Steve has been designing games since 1982, starting with the legendary adventure game company, Infocom. His titles there included PLANETFALL, THE

HITCHHIKER'S GUIDE TO THE GALAXY (a collaboration with Douglas Adams), LEATHER GODDESSES OF PHOBOS, and ZORK ZERO. He co-founded Boffo Games, where he created HODJ 'N' PODJ and The SPACE BAR. He was creative content director for 5 years for the tournament skill game site WorldWinner.com, where he continues to serve as an advisor. Steve has also worked for Blue Fang, Floodgate Entertainment, and THQ's GameFX studio, and has also done consulting work for Activision, Blizzard, Disney, EA, Harmonix, Hasbro, Legend, and many others. Steve is a former member of the board of directors of the IGDA; he co-founded Post Mortem, the monthly gathering of Boston-area game developers; and he is a co-organizer of the annual Game Designers Workshop.

Roman Nouzareth – Microtransaction-Supported Games Section

Roman is the co-founder and CEO of Cafe.com, a worldwide casual gaming company.

With his brother Mathieu, they build a leader in social casual gaming, introducing new innovative business models based on 'freemium' models.

Prior to Cafe.com, the 2 brothers founded Boonty, a worldwide leader in the digital distribution of video games, and one of the largest casual game platforms in the world, operating in more than 25 countries with offices in Paris, Singapore, Tokyo, Beijing and New York.

Before Boonty, Roman founded, still with his brother Mathieu, WebConcept, one of the first e-business consulting company in France. They built a business which became one of the leaders on the market by 1999, when WebConcept was sold to the IconMedialab company of Sweden (Euronext : icon), a leader in it's field. As Managing Director of Web Concept, later of IconMedialab, Roman developed and enlarged the agency until April 2001.

Roman holds a law degree from the University of Paris II Assas, and is an investor in several start-ups.

Understanding Casual Games Writers

Kane Minkus, Managing Partner, SomaTone Interactive Audio

Kane is one of the founding members of SomaTone Interactive Audio, one the largest game audio production companies in the world today. He has produced close to 500 soundtracks between games, films, records and interactive media campaigns. With a passion for building businesses, he was one of the founding strategists for the design of Pyramind: Digital Production Arts Training Academy, a premier digital production school, COO and founding partner of Franklin Digital Properties, a web business management firm, EBIVE Entertainment, an artist production company, and executive coach for Fearless Wealth, an investment education company. Kane continues to consult with CEO's & executive teams on leadership skills, as well as, leads workshops in the Bay Area. He also lectures frequently on organizational behavior, increasing communication effectiveness, customer driven leadership, sales team development

and brand messaging. Kane holds an Associates Degree in Finance from the University of Illinois, a BM in Music Business and Music Production & Engineering from Berklee College of Music, and a Masters in Audio Production from Expressions School for New Media.

Ken Tabor, Lead Programmer, The Method

Ken Tabor is a twelve year veteran of the video game industry. While serving in roles including lead programmer, lead designer, and producer, he has shipped six titles on three generations of home consoles. Ken has successfully delivered titles in such diverse genres as puzzle, character platforming, and vehicle action in licensed and original IP works. Ken is currently serving as lead programmer at The Method, an independent mobile games developer located in Dallas, Texas.

Jim Stern, VP of Product Development, iWin, Inc.

Jim Stern has been in the game industry for 15 years in a variety of roles including: Vice President of Product Development at iWin, General Manager for University Games, President and Co-Founder of AreYouGame.com, Senior Producer at WorldPlay Entertainment and AOL, and Product Manager for 3DO. In his current role at iWin, he is responsible for overseeing all game production including PC, console, mobile, Mac, flash, retail, and localized ports. Jim received a BS in Industrial Engineering at Stanford University and an MBA from the Amos Tuck School at Dartmouth College, but his claim to fame is being a contestant (and winner!) on Wheel of Fortune.

Kenny Shea Dinkin, VP & Creative Director, PlayFirst

Kenny Shea Dinkin serves as Vice President and Creative Director of Playfirst, Inc. where he drives the game portfolio's aesthetic sensibilities directing game design, art, audio, character, and story development for all PlayFirst games including the inventive, top-selling Diner Dash, Chocolatier, Dream Chronicles & Nightshift Code brands. As one of the first management team members at PlayFirst, he oversaw game production as Executive Producer for the first 24 PlayFirst Titles. Kenny brings over a decade of success in consumer technology where he has designed, produced and directed design on a wide array of award-winning consumer products and interactive platforms. Kenny earned a Bachelor's degree in History from Brown University and an M.F.A. in Visual Arts from the University of Pennsylvania's School of Design.

Greg Mills, Director of Games, AOL Games

As Director of Games, Greg manages the entire games business for AOL. He is responsible for the overall strategy and financial success for both the casual games group and the videogame editorial group. Greg manages a portfolio of game brands such as games.com, AOL Games, GameDaily, Bigdownload.com, PlaySavvy.com, and the GameDaily Biz. Greg Mills has more than fifteen years of marketing and business experience in the gaming industry. Prior to his eleven years at AOL, Greg worked at WorldPlay Entertainment and at The 3DO Company in a variety of marketing and business development positions. Mills earned his Bachelor’s degree from Pomona College and an MBA from Santa Clara University.

Israel Evans, Art Director, iWin

Israel C. Evans has been working in games since 1996 when he hooked up with the fledgling Monolith Studios. He helped start up Sandlot Games and now calls iWin home. He has been pushing pixels, donning motion capture suits and talking about art ever since. When not working, his passions include oil painting the great outdoors, sculpting WoW characters out of sculpy, reading everything he can get his hands on and, above all, being a dad for his most incredible, energetic, high volume, fashion conscious, caring and thoughtful, animal loving daughter.

Eric Lamendola, GM, Slingo, Inc.

Eric Lamendola is a specialist in digital interactive entertainment. With almost 10 years of experience with one of the most successful brands in online games, Eric has been integral in brand development, deployment and licensing for every digital interactive media. Whether it is social networks, interactive communities, social games or bridging television and interactive games, Eric has had repeated successes in executing distribution across multiple verticals. He has been integral in the design and development of the entertainment destination (Slingo.com), one of the most successful online communities in casual games. He also has extensive knowledge pertaining to licensing game brands to the online game space, download game space, casino slot machines and table games, lottery, mobile games, interactive television and television game shows. Being with one of the first online game portals to integrate rich media and video advertising, Eric has developed comprehensive strategies to effectively integrate and maximize online advertising. He also has experience in the design and production of over 35 web and downloadable titles including the award winning Slingo Quest™.

David Fox, VP of Technology and Co-Founder, iWin, Inc.

David Fox is VP of Technology and co-founder of iWin, Inc., where he helped guide development of best-selling casual games such as Jewel Quest, Mah Jong Quest, and Family Feud Online Party. David has been a game designer and developer for over 14 years, with a focus on multiplayer casual games and storytelling. He is the author of several best-selling books about Internet technologies and culture, and his writing has appeared in publications such as Salon.com, Gamasutra, Gamelan, O'Reilley Network, Developer.com, Casual Connect, and Game Programming Gems III.

Andy Megowan, Creative Director, iWin, Inc.

Andy Megowan is the Creative Director for iWin Division 90 in Seattle, Washington. He has worked on more than 50 games in both casual and hardcore industries, at companies including Interplay, ION Storm, Monolith Productions and Sandlot Games. He began programming games in 1979, and has branched out into writing, design and voice acting along the way. He has been a guest lecturer and panelist at the Austin Games Conference, and at the University of Washington, Bothell Campus. And writing biographical paragraphs makes him feel very, very old.

Advergaming Section Writers

Jónas Björgvin Antonsson, CEO, Gogogic ehf

Gogoic is an Icelandic company that focuses mainly on online games and casual MMOGs. To contact Jonas, please send an email to info[at]gogogic.com

Deepak Abbot, General Manager, Casual Games, Zapak.com

Deepak Abbot also wrote the Appendix on the Indian Casual Games Market

Deepak Abbot is currently working as General Manager with India's leading gaming company Zapak Digital Entertainment Limited. He is heading the casual games portal Zapak.com which is India's no.1 games portal. Deepak Abbot has over 11 years of experience in Media & Entertainment industry. He has earlier worked with India's top portal Indiatimes.com for 4 years manging the creative duties of their e-commerce division. His last job with Satyam computers which is among world's top IT outsoircing company led him to work with world's top organizations like World Bank, Ford, Unilever, GE & many others. His last 3 years at Zapak has given him deep insights about gaming industry especially in India where the entire gaming revolution was started by Zapak.com. He is currently helping Zapak.com to grow internationally by launching several casual games portal in other part of the worlds besides India.

Jeff Murray, Game Designer, Fuel Industries

Jeff Murray is a Game Designer at Fuel Industries, an Ottawa agency that specializes in online branded entertainment. He has broad experience in the field of game development and browser-based entertainment, with eight years of multimedia, game programming and management roles under his belt. Jeff manages a small team of game developers specializing in research and game mechanics prototyping. The team ensures that Fuel's game development is always at the forefront of the technology and producing the industry's most original and immersive online content. As a well-known and active member of the independent games community, Jeff has been involved with over 50 games ranging from browser-based content to retail titles. Jeff has grounding in publishing, computer aided design, business software development, and film and television production. Before moving to Canada in 2005 specifically to work with Fuel, he ran a small, successful games company in the UK.

Jonathan Bankard, Business Manager, Microsoft

Jonathan is a Business Manager at Microsoft in the PC online gaming group which encompasses Games for Windows – LIVE, Windows 7 gaming, MSN Games, and Windows Live Messenger Games. Prior to Microsoft Jonathan marketed several of Electronic Arts' RTS franchises and founded and worked in a consumer electronics startups. He earned a BS from Brown University in computer science with a second concentration in economics and a MBA from Harvard Business School.

Try and Buy Downloadable Games Section

Andrew Lum, CEO, Fugazo

Andrew Lum got his start in the gaming industry by posing naked to get hired for the Nintendo Street Team but now wears clothes to work on a regular basis. Prior to starting Fugazo, Andrew worked at Sandlot Games where he was the Lead Designer\Producer of the casual game hit Cake Mania. At Fugazo, Andrew has been the lead designer on Fashion Fits, Cooking Academy, World Mosaics, Fishco, and Cooking Academy 2:World Cuisine.

Mike Wabschall, Associate Producer, Pogo

In his role as Associate Producer, Mike Wabschall is integral to the production of several of Pogo.com's connected downloadables. Most recently, he shipped Pictureka! Museum Mayhem on the PC, online, and at retail. Mike is an experienced developer of entertainment and education titles. He has produced and designed handheld, online, and CD-ROM titles with game publishers such as THQ, Disney Interactive, and Vivendi Games. Mike received his B.S. in Radio-Television-Film from the University of Texas at Austin.

Ad-Support Games Section

Significant portions of this section were written by Juan Gril, editor of the Console Download Section

Alan Miller

Alan Miller is a pioneering game developer and publishing executive with 30 years experience developing, licensing, marketing and distributing original entertainment software titles. His career began in 1977 at Atari as a game designer. In 1979, he co-founded Activision, the first independent video game publisher, and served as the company's VP Product Development. In 1984, Miller co-founded Accolade, a leading entertainment software publisher for personal computers and game console systems, initially serving as VP Product Development and ultimately as Chairman and CEO. Miller has a Bachelor of Science degree in Electrical Engineering and Computer Science from the University of California at Berkeley.

Microtransaction-Supported Games Writers

NOTE: All articles in this section were a collaborative effort.

David Deschaintre

David has been involved into Cafe.com since the start of the project. After a long road with Boonty Digital Distribution Unit as Online Marketing Manager for Europe, he decided to move on and express his creativity, but also realizing his child dream to design games, joining the rising project to build up the number 1 online community based on multiplayer casual games at cafe.com.

Beyond this workaholic-demanding guy lives the peaceful heart of a French Poet for whom

Franck Laval

Franck joined the Cafe (previously Boonty) team in October of 2004 as an Account Manager and later as a Producer and Lead Designer. He has a Specialised Master in Management of New Technologie from EM Lyon (French Business School). He began working in the video game industry in 2000 at GfK (Market Research Company) as a Video Games Analyst. 2 years later, he joined a small compagny Apocope as consultant (video games market).

In his spare time, Franck enjoys Electronic Music, and works hard on his own website: www.djkix.com

seeking and sharing Love is the Art of Life.

Jenna Leder

Jenna Leder is a New York City area game artist, and a graduate of the Savannah College of Art and Design. When not contributing to industry papers, she spends most of her time toiling feverishly on her computer overlord.

Olivier Mathieu

As head of Cafe.com European operations, Olivier Mathieu oversees business development, marketing, portal management, community management, customer support and technical operations of the cafe gaming portal in Europe. Prior to this role, Olivier served as VP of business development at Boonty/Cafe.com. Before joining Cafe.com in summer 2007, Olivier spent 7 years with Vivendi Games/Blizzard where he held various Business development and sales positions in Europe and Asia Pacific. He most notably worked on the launch of World of Warcraft in Asia, setting up entry strategies in the Asian mid core online gaming markets as well as other assignments in retail sales, mobile gaming and corporate strategy.

Prior to joining Vivendi Games, Olivier was a financial analyst in a private equity fund. He holds a degree in business administration from HEC school of management.

Derivative Products and Appendix Writers

Greg Zesinger – Retail

Greg Zesinger is the Product Manager at eGames, Inc., a leading casual games developer, publisher and game portal based in Langhorne, PA. A former EA Sports producer and marketing director at specialty toy manufacturer Action Products, Zesinger currently wears many hats as a key member of the marketing and creative teams behind casual games including Burger Island, Burger Island 2: The Missing Ingredient, Purrfect Pet Shop, and Defender of the Crown: Heroes Live Forever. He can be reached at gzesinger@egames.com.

Don Bahlman – Mobile

Founder and CEO of xBlitz Entertainment, Donald Bahlman has always pursued the marriage of technology and design. It goes back to that first 25¢ play of Galaga in 1982 that left its mark at

an early age. Since growing up (a little), he has contributed much to development, design and marketing, while at Mumbo Jumbo, Motorsports Simulations, ParSoft Interactive and Paradigm Simulations. Before transitioning into games fulltime in the mid 90's, he worked on a number of commercial and military simulations. Clients include: Boeing, MacDonald-Douglas, Lockheed-Martin-Marietta, SAIC, Nellis AFB, USMC, Spain, Curacao (Netherlands Antilles) at Willemstad, and Marine Safety International Rotterdam. His work has been featured on CNN, Discovery Channel, MTV and in Europe. But what Don is most proud of is his focus on family-friendly entertainment; having never worked on an ultra-violent title. With more than 15 years in the game industry and 12 titles to show; he is now carving out a place for xBlitz Entertainment in this fast growing market of casual games.

Kenton White – Serious Games

As DISTIL's co-founder and Chief Technology Officer, Kenton White applies models of complex human and organizational interactions to game design to make material intuitively understandable for learners.

Kenton initially set out to become a film director and worked on a number of television and feature film productions. However, he later succumbed to the siren call of optical physics and applied mathematics. He received his Ph.D. from the University of Arizona in 1999.

Prior to DISTIL, Kenton led product development teams designing modeling tools and simulations for organizations like Nortel, Bookham, and the Department of Defense. He has published more than 50 peer-reviewed papers in academic journals and has been regularly invited to speak at industry conferences.

Mitzi McGilvray – Macintosh

Mitzi has been active in the game industry for nearly two decades. Her career started at the once well-known game company, Epyx. There, she spent two years on the phone listening to customers. Since then, she has held production roles at Activision, Maxis, Tengen, Electronic Arts and Tapwave. Currently, she is Vice President of Casual Games at TikGames, a leading publisher of digitally distributed content for all current platforms.