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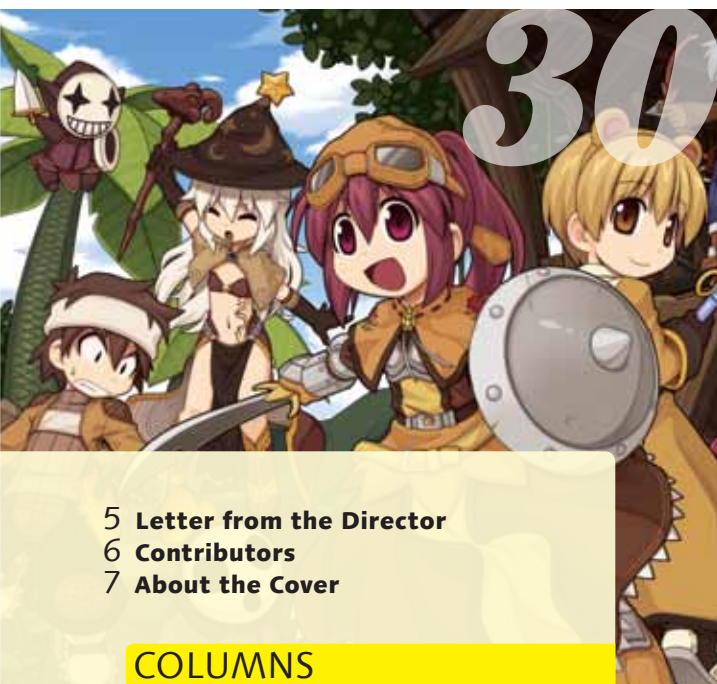
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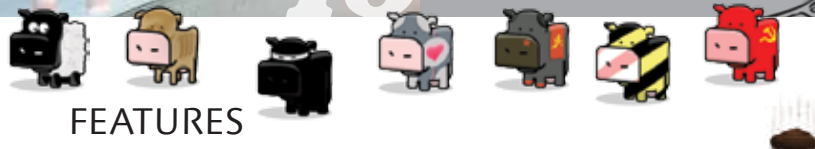
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USAGE

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Casual Connect Magazine (<http://casualconnect.org/magazine-archive/>) is published three times yearly by the Casual Games Association (<http://www.casualgamesassociation.org/>), P.O. Box 305 Smithfield, UT 84335. Casual Connect Magazine is postal mailed to over 17,000 game industry professionals and members of the press.

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Letter from the Director



Moving our July conference to San Francisco seemed like such a good idea. Still does. But I gotta be honest with you.

I'm terrified.

However necessary or smart or whatever it may be, it's still scary to move toward something completely unknown. I keep reminding myself that we have already lined

up phenomenal speakers and outstanding sponsors. We're ready to send this excellent issue of Casual Connect off to the printer. By any measure we should be hugely successful. And yet, here I sit, one month away from Casual Connect in San Francisco, tapping away at my keyboard and chewing on my lower lip.

It's kind of funny when I think about it. It really wasn't so long ago that I was an undergraduate, pointing vaguely toward a future of who-knew-what. Grad school, a career programming core video games, starting the Casual Games Association—what did I know about any of that? Talk about heading off into the great unknown! But I charged forward almost without a care and somehow I did all right.

Back then, of course, I had the advantage of boundless energy and a severe case of naïveté. I guess I felt like I could do anything back then.

I guess what I'm saying to myself—and to you, by extension—I'd

better just get on with it. Success doesn't come from worrying, it come from doing. As Seth Godin might say, at some point you have to ship.

So here's to all of you up and coming developers out there, you fresh-faced, idealistic developers with a good idea and only a fuzzy sense of what to do about it. If you find yourself sitting at your desk, worrying because pursuing that idea will require you to move away from what you know out into the void of unknown possibilities, go for it.

In San Francisco we're introducing the Indie Prize Showcase to the USA. We've invited over a hundred indie developers who were willing to take action in spite of uncertainty. They may be barely scrapping by right now or surviving on work for hire, but they may also be on the cusp of something huge. Maybe next year or the year after or maybe five or 10 years down the road, one of them or all of them will have thousands of employees all over the globe. They'll be building games that they (and thousands of others) love. And they'll look back at 2013 and shake their heads at how great the great unknown turned out to be.

Who knows? That could be you, next year or perhaps the one there-after, poised on the verge of something huge. Provided, that is, that you quit chewing on your lower lip and get to work.

Jenica

Jessica Tams, *Director of the Casual Games Association*
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EVENT CALENDAR

30-31 July & 1 August 2013
Casual Connect San Francisco

Hilton San Francisco
Union Square
333 O'Farrell St.,
San Francisco, CA 94102



23-25 October 2013
Casual Connect Kyiv

RUS Hotel
4 Hospitalna St.
Kyiv, 01601
Ukraine



11-13 February 2014
Casual Connect Europe in Amsterdam

Beurs Van Berlage
Damrak 243, 1012 ZJ
Amsterdam, Netherlands



May 2014
Casual Connect Asia

Shangri-La Hotel
22 Orange Grove Road
258350, Singapore



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Ed is the senior managing partner and chief technology officer for Seattle-based The Alacer Group, a business consulting firm focused on big data, financial services, healthcare and technology. He has over 20 years of Internet/SaaS/PaaS experience with startups as well as established Fortune 100 companies.

Seattle, WA



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Kelly is a Technical Producer at Slant Six Games and the "Producer-of-many-hats" on *Max's Pirate Planet*. Also a screen and voice-over actor, an electronic designer and engineer, a musician, and a teacher, he's been working in the games industry for 10 years.

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Jim Squires

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Jim Squires is the Editor-in-Chief of Gamezebo, a leading editorial site for casual, social, mobile and indie games. He's been with the site since 2009, and if you want to have your game featured on GZ, there's no better person to ask.

St. Catharines, ON



Stephen Jarrett

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As VP of Game Design at Arkadium, Stephen Jarrett brings to the team more than 15 years of game design experience working with Pixar, Sony, Disney and Nickelodeon. In his role, Stephen is responsible for overseeing game design for all of the company's platforms.

New York, NY



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William is a lead Art Director at Arkadium with over 12 years of experience in animation and award-winning game design. William has successfully led the growth and development of Arkadium's art team by encouraging creativity with games.

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Subset Games

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David is founder and principal of Gamma Law, a San Francisco law firm focused on games, media and music. David's games experience includes ongoing representation of the developer/publisher of one of most successful freemium games ever developed, as well as service as providing legal services to major publishers.

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Sebastien manages the operations of Pixowl's 22-person international team. He has supervised the production of the studio's most popular titles: *Doodle Grub*, *Greedy Grub* and *The Sandbox* (12+ million players in total). Sebastien co-founded Pixowl Games to fulfil his vision of mobile games reconnecting family and friends.

San Francisco, CA

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Perry Tam is one of the co-founders of Storm8. Helping to found Storm8 in 2009, Tam is lover of gaming and has experience with software engineering, 2D/3D art, and animation.

Redwood City, CA

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Trevor joined NativeX as the mobile games analyst in June, 2012. As a graduate of Macalester College (with a degree in Applied Math and Statistics), Trevor brings with him a wealth of statistical and analytical knowledge. Other than numbers and gaming, Trevor has a passion for playing baseball and classical piano.

Sartell, MN



About the Cover



Alex Byrom

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Alex has been developing games for three years—and playing them for 17. He studied Multi-Player Online game design at Staffordshire University in a course focused on rapid prototyping on a wide variety of engines, including UDK, UT3, Monumental, Unity, Tiled (tool), and many more.

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Maksim Maksimov is managing partner of RJ Games Company. He has more than six years of experience in online game development. Highly skilled in all stages of game development—from idea concept to marketing promotion—Maksim has directed and managed *The Kingdom*, a browser-based MMORPG, *Under Siege*, and *Inferno*.

Moscow, Russia



GungHo Online Entertainment

Tokyo, Japan



David Boyle

This issue's cover art was created by David Boyle of Big Viking Games in London, Ontario, Canada.

David is senior lead artist at a studio of about 50 employees. BVG creates casual games using cutting edge HTML5 technology and develops for both web and mobile platforms (iOS, Android, Windows Phone). The studio currently has two active titles: *Fish World* for Facebook and iOS and the newly released *Mech Force* for iOS.

The cover features the BVG Viking standing proud with his horde of warriors, ready to take on any obstacle before them. Big Viking is a progressive studio that embraces many new development techniques and business practices, with a strong "Viking Value" system.

Emblazoned on the Viking shield is the HTML5 logo, which the studio leverages to create cutting edge content for multiple platforms.

The HTML5 logo is licensed under Creative Commons Attribution 3.0.

Ary Cohen

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Ary Cohen is General Manager for the game monetization division at Matomy Media Group. He is a graduate of the Executive MBA program at Tel Aviv University and is currently working on his Philosophy MA. Ary has extensive international experience in online advertising and consulting.

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As Associate Professor at James Cook University, Roberto Dillon is active both in the academic and in the development sides of gaming. He also covers the role of Chief Game Designer for the indie studio Kentaura, where he works on a new breed of social and mobile games.

Singapore



New & Notable

Storm8

Storm8, Inc. was founded in 2009 by Perry Tam, William Siu, Laura Yip, and Chak Ming Li. Located in Redwood City, California, Storm8 develops social games for iOS and Android devices. Storm8 is also home to three distinct brands: TeamLava, Shark Party, and FireMocha. Storm8's games have been downloaded more than 400 million times on over 200 million devices across the globe. With a wide variety of games including *Bubble Mania*, *Jewel Mania*, *Bingo*, *Bakery Story*, *Dragon Story*, *World War*, *Vampires Live*, and *iMobsters*, Storm8 has become a leader in the field of mobile social games.

First Things First

From the beginning, Storm8 has been focused on building a mobile social gaming network.

Since our goal was to take the mobile social gaming industry “by storm,” that word stuck with us. We added the number 8 simply because we couldn’t get the storm.com web address.

My co-founders and I saw the success of social games on Facebook. And when the iPhone was launched, we believed that it would change mobile forever. From there, we saw a huge opportunity to bring social games to mobile platforms.

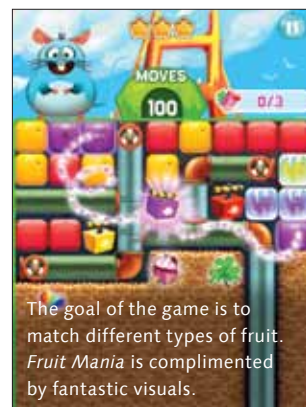
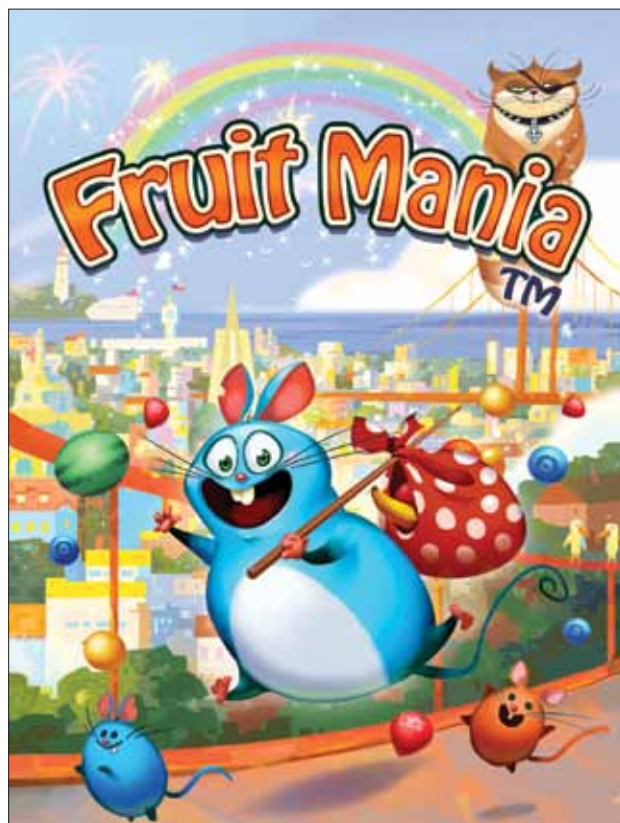
As avid gamers ourselves, we have always admired successful gaming companies—most of which had these awesome one-word names. So for our name we wanted to come up with something catchy that people would get and remember right away. Since our goal was to take the mobile social gaming industry “by storm,” that word stuck with us. We added the number 8 simply because we couldn’t get the storm.com web address. Since 8 is a good number, we figured, what the heck, let’s throw it in there!

Standing Out

Storm8’s unique approach to gaming consists of two components: our network approach and our diversified game portfolio.

From the beginning, Storm8 has taken a network approach to building our user base. We’ve grown our user network from zero in 2009 to more than 200 million players worldwide today. We use cross-promotion to introduce new games to our player network. This works well because our games have enabled us to develop a relationship with our users and understand what they like. So when we introduce them to a new game, they know that it will be up to Storm8’s high standards.

Over the last four years, Storm8 has also expanded into many different genres to build a network of games. When we look into a category, we set out to produce multiple hit games; we never aim to be a one-hit-wonder. Today, we have a diversified portfolio of 40+ hit games in five different genres. These two



The goal of the game is to match different types of fruit. *Fruit Mania* is complimented by fantastic visuals.

Storm8's unique approach to gaming consists of two components: our network approach and our diversified game portfolio.

unique approaches and our consistent high quality have allowed us to stand out.

Four Distinct Brands

Storm8's brands came about as we developed and expanded our game portfolio. We wanted to find a way to distinguish our games in each genre:

- Under the Storm8 brand we offer some of the most popular MMORPGs in the world, including *World War* and *iMobsters*.
- TeamLava is the Storm8 brand for popular social casual games like *Monster Story*, *Farm Story* and *Zoo Story*, and social arcade titles like *Bubble Mania*, *Jewel Mania* and *Fruit Mania*.
- FireMocha is Storm8's brand for mid-core games (MMORPGs with 2D isometric graphics). Its first title is *Mobster Wars*.
- Shark Party is the most recent Storm8 brand focused on social casino titles like *Slots* and *Bingo!*

Keys to Success

Because our diverse catalogue spans many different genres, Storm8 attracts a wide variety of users. Our users enjoy our high-quality games and exciting game-play. Whether someone is into social arcade games, more casual titles, or MMORPGs, we have something for them.

Storm8's mobile gaming network reflects game usage patterns that are similar to what we see in the industry. In general, males gravitate to hardcore and mid-core games, whereas females tend to play more casual and arcade games. Because we have games in five



Stylized to be fun and full of action, Storm8's *Bingo* allows players to go against their friends to earn points and collect rewards.



different genres, we're able to cater to a broader demographic and appeal to males and females equally.

This diverse portfolio has enabled us to surpass 200 million devices and 10 million daily active users worldwide (as of January, 2013). Both of these milestones have doubled in less than a year. We attribute our impressive growth to our strong user network as well as our diversified portfolio of games.

Having a large network allows us to cross-promote games to users who may be interested in a certain genre. We are also able build a strong relationship with players within a game, allowing us to understand what other game mechanics they will like.

Following the Market

Storm8 is an early mover in many facets of mobile social gaming. We were one of the first mobile companies to develop games for iOS

Our diverse portfolio has enabled us to surpass 200 million devices and 10 million daily active users worldwide. Both of these milestones have doubled in less than a year.

Storm8

Storm8 was one of the first mobile companies to develop games for iOS and Android. For both the App Store and Google Play, we were also among the first game developers to introduce in-app purchases. And we were one of the first to partner with Amazon.

A match three puzzle game in which a player swaps jewels to match three or more.

and Android. For both the App Store and Google Play, we were also among the first game developers to introduce in-app purchases. And we were one of the first to partner with Amazon.

We have launched several games on the Kindle Fire, including some of our most popular titles: *World War*, *Farm Story*, *Pet Shop Story*, *Restaurant Story* and *Dragon Story*. We consider the Amazon Appstore for Android a world-class platform for marketing and merchandizing.

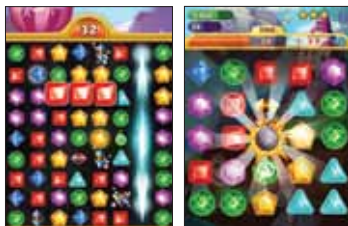
Meanwhile, we'll continue to explore other platforms and expand based on market interest.

The Future of Storm8

Our main goal at Storm8 is to grow our mobile social gaming network. It's not just about developing more games or establishing a franchise. We listen to our users. We are focused on building games that are high quality and that our users will consistently enjoy. If that means developing a follow-up to a previously well-received title, then we will explore it.

Ultimately, we want players to come to Storm8, find games they love, and share that experience with their friends. Over the next year, we will increase our international footprint and continue to expand our portfolio of games.

As for the future, Storm8's goal remains the same: to be the Number One mobile social gaming network. Our network has grown tremendously over the last four years. But we're only getting started! ✱



A puzzle adventure game, *Bubble Mania* has players throw bubbles at bubbles with matching colors to pop your way to defeating the Evil Bubble Wizard and rescue baby critters.



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A Picture Is Worth a Thousand Words

Under Siege Postmortem

It may seem that there is really nothing simpler yet more complicated than creating a game for social networks—as if the number of gamers were so huge that they will come on their own.

In truth, reaching the stars requires toilsome perseverance, the careful honing of professional skills, and a burning desire to create a really excellent product. At RJ Games, which has earned its rightful place among Russian game developers, we have learned that truth firsthand. The team has a number of successful launches under its belt, each of which has gathered positive reviews, not only from players, but from colleagues as well.

One recent success is *Under Siege*, a game which features a mix of Tower Defense and City-builder genres, combining both role-playing and strategy in a medieval fantasy motif. Despite the fact that *Under Siege* was not the first game of its type on social networks, it has become the most successful of them.

In fact, just four months after the development of the prototype, the game reached Number One on the VKontakte network.





by Maksim Maksimov;
Managing Partner, RJ Games;
Moscow, Russia

The team at RJ Games



Battling and Building

So what makes *Under Siege* so special? What has enabled it to catch the fancy of so many social gamers?

First of all is the game-play. There are three types of missions in *Under Siege*: survival, destruction, and interaction. Survival missions require the player to stay in action for a certain period of time. Destruction missions challenge players to prevent enemies from going from one point to another. On interaction missions, the user needs to destroy or repair an object on the map.



The second important component of *Under Siege* is the building and growth of the city. The city has both background objects and special buildings, which the player can use to produce materials to further develop and strengthen the city. The user is completely free to choose the design and upgrades of structures—nearly all objects may be modified or repositioned at any angle.



Meanwhile, there is real life humming in the world each player creates—a world with its own inhabitants, both good and bad, who increase or decrease the world's prosperity, which in turn may affect population growth. The opposition between a secure city, ignorant of sorrow and adversity, and the battlefields, where ruthless hordes of enemies are trying to destroy it, gives players a feeling of responsibility and compels them to come back to *Under Siege* time and again.



Under Siege Postmortem

We should note separately the map creation for *Under Siege*. Too often developers try to automate this process as much as possible to save time. In the end, however, players can always see the difference between hand-crafted objects and the details and locations that were spit out by the computer. Since such a result would disappoint both our audience and ourselves, we decided to create all action locations manually. We feel that it is really important for players to feel snug and comfortable in the carefully-crafted world of *Under Siege*.

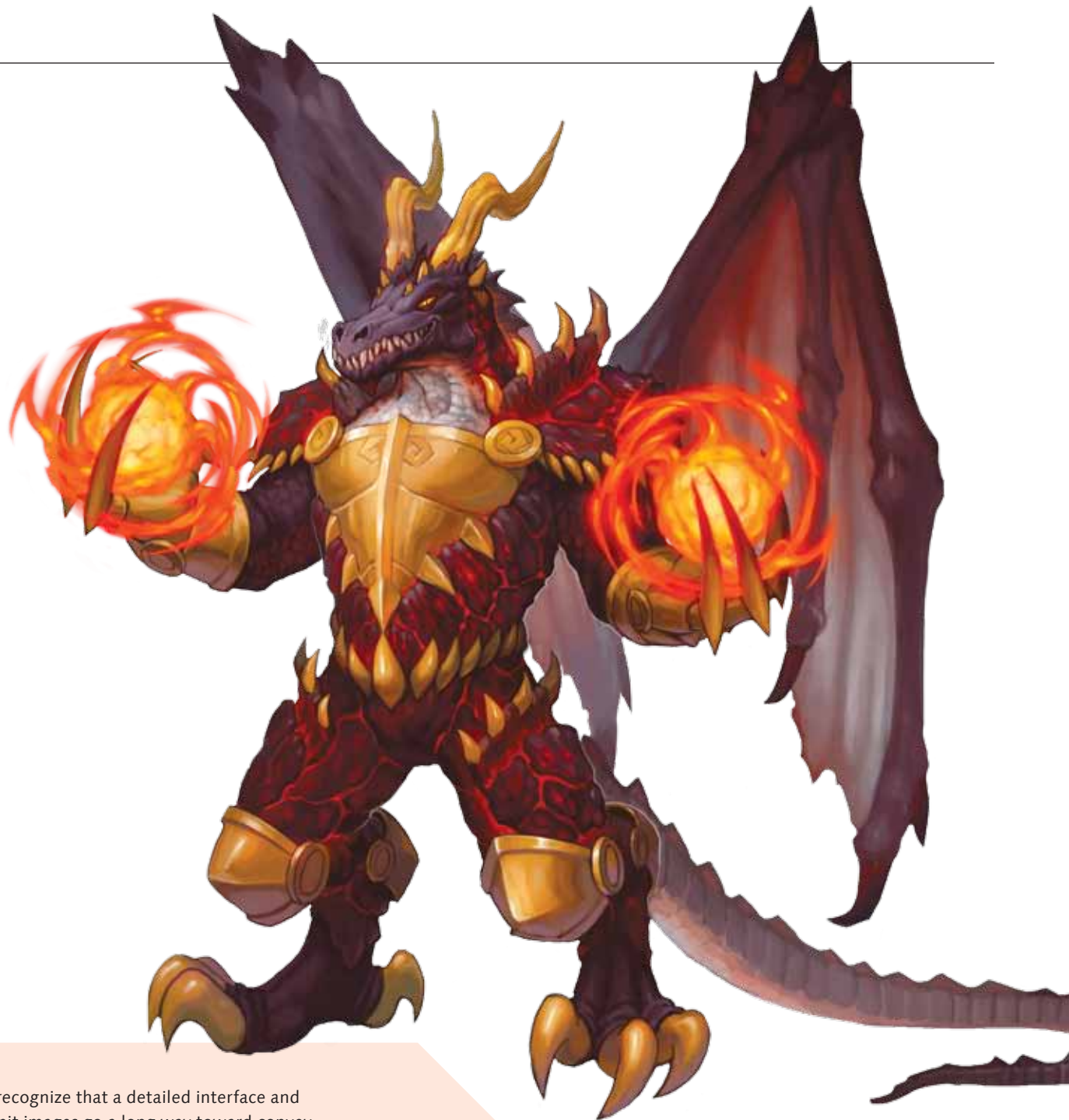


Getting the Details Right

In the course of creating the original prototype of *Under Siege*, we developed three versions of the game's locations and mechanics. After making significant modifications to each one, in the end only one was chosen as the primary one. Equally important was the development of very clear math, which has resulted in the sort of balanced logic that players appreciate

So it's not surprising that the first thing nearly every player notices about *Under Siege* is the graphics. The works of artists and designers create a "cover" for the game, which produces the first impression while creating high expectations. Even so, we wanted to leave room for our players to express their own creativity, so we give them the option to redesign the "cover" according to their own tastes. We believe that is a great way to get players interested and comfortable from the very first moments of the game.





We also recognize that a detailed interface and unique unit images go a long way toward conveying a high sense of quality. We made sure both the main and secondary characters were inherently medieval, with armor, weapons and personalities to match and enhance the overall atmosphere. At the same time, each of the vividly-rendered main characters has its own unique psychological profile. Even inveterate players will enjoy the unconventional personalities and lives of these characters.



Under Siege Postmortem

Going Global

The first to appreciate the game was the most active audience of the VKontakte network. The release of the game was August 24, 2012 and by September the daily active audience of *Under Siege* was over 100,000 people. Soon thereafter, the game was launched on other popular sites as well. By the end of the year, *Under Siege* had received positive reviews from developers at the Flash GAMM Kyiv conference, as well as prizes for the “Best Social Game” and “Best Game-play.”



That success led us to consider going global—an important and carefully-considered decision given that we knew we could not simply translate the game into other languages and promote it on social networks abroad. To the contrary, we knew that offering the game on social networks around the globe would require our team to repeat the entire gamut of preparation and acquire new skills.

Those developers who have tried to create applications for Facebook have learned that this network is continuously updated, which in turn compels developers to stay on their toes and be ready to react quickly to functionality modifications. So when we prepared to launch *Under Siege* on the Facebook platform, we dedicated a part of the team along with a producer who had previously published a game on this network.

Since the Facebook API is very different from the API of the Russian social networks, new entities had to be introduced into the code. Ultimately, the modifications were so significant that the projects bearing the same name in VKontakte and on Facebook are, in fact, two different projects.

Due to intensive teamwork and several unexpected problems, we ended up spending more time on the Facebook project than expected. Much of that extra effort was due to the specifics of Open Graph—the Facebook platform extension which presents connections and online user interactions in graphic mode. To make it work, the team had to rent remote servers and hire more programmers write a huge amount of JS-code.



Despite some changes to the technical and economic components of the game adapted to Facebook, the key attractive components of *Under Siege* remain unchanged: Players still need to prepare for battle, defend and re-build the city using ingenious traps and spells, and sometimes completely destroy the enemy.

Our marketing department also put in a lot of effort to attract enough players to the game. They used all available virtual channels and provided the best quality content while taking into account the tastes of the Facebook audience. In addition, we sponsor regular events and valuable prize drawings adapted to the interests, habits and attitudes of Western players. Of course that means many events available to the users on the Russian networks have had to be modified and altered.

Thus, the original task of adapting the game to Facebook became a step in growing a parallel branch of development and support. RJ Games now has invaluable experience, because we tried to maintain and bring all the advantages of *Under Siege* to a foreign audience by providing the highest quality and fascinating game-play. The growing number of players tells us that we succeeded. ✱



By the Numbers

The Metrics that Really Matter in Mobile

Imagine getting a physical exam from a doctor who does nothing more than check your pulse before declaring you completely fit. After such an exam, you'd probably be a little concerned, wouldn't you? Health is a very complex thing, after all, and it must be evaluated along several different verticals. Nevertheless, many mobile developers take into account only a small fraction of available indicators to assess the health of their games.

So, let me ask you: How's your game? Is it thriving? There is a wide range of metrics available, but there are a few things developers should keep in mind when evaluating the vitality of their mobile game.

NativeX separates key performance indicators into three categories: Engagement, Retention, and Monetization. How frequently do gamers play your game? For how long do they typically play? How much money are they dumping into the game? It is obvious that these metrics are important, but what exactly do they tell you about a game, and what are good benchmarks to shoot for?

ENGAGEMENT

How Much Your Game Is Being Played

Engagement is the easiest of the three metrics to understand and one of most valuable ways to measure the health of your game. Most people know about daily active users and monthly active users, but if you're only looking at those stats on their own, you're missing a major chunk of the big picture. Here are two other relevant ways to measure engagement.

SESSIONS-PER-DAU

This metric refers to how many times the average daily active user (DAU) plays your game. A strong number of DAU sessions is usually around three, but it depends on the genre of the app. Roleplaying games like Venan's *Book of Heroes* are generally played for longer ses-

sions and tend to have fewer plays per day. Endless runners like Imangi's *Temple Run* have shorter game-play times, but users can easily exceed four or five sessions per day.

DAU-TO-MAU

Unlike people and furniture, you want your game to be *sticky*. The ratio of daily active users to monthly active users (MAU) reflects how sticky a game is. How many gamers that have played the game in the past month also initiated a session today? A game with a strong DAU/MAU ratio will be able to maintain a value over 0.2 (more on this later) for an extended period of time.

This ratio can be misleading, however, during user acquisition campaigns, when the ratio will be much higher. For example, say Game X consistently has 20,000 DAUs and 100,000 MAUs, resulting in a DAU-to-MAU ratio of 0.2. The studio then introduces an advertising

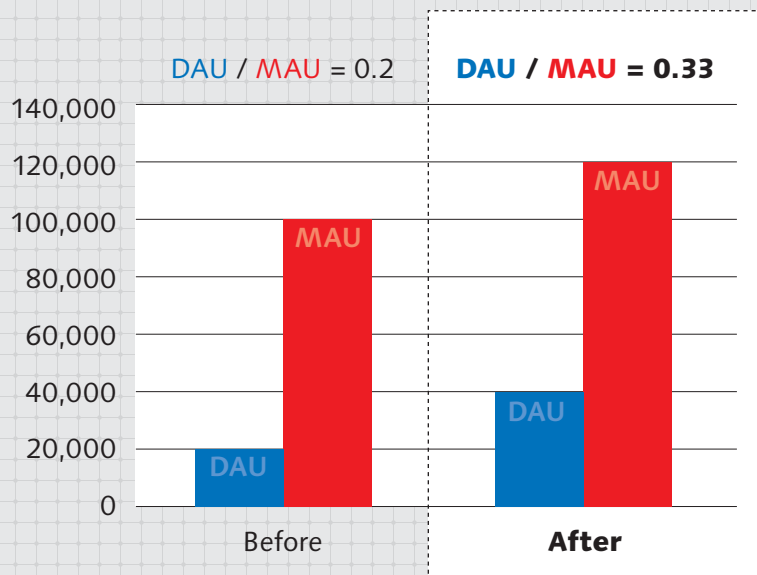
campaign which adds an additional 20,000 users to both the DAU and the MAU, lifting their ratio to 0.33 on the day their campaign runs. Although they changed nothing about the game, it is as if suddenly they have the best engagement anyone has ever seen in mobile! The point is, be careful when looking at volatile metrics like DAU-to-MAU.

RETENTION

How Long Your Users Stay

While engagement is a very valuable metric to mobile developers, it doesn't mean much if you have poor retention. If you have lots of users who only use the app for a short period of time, you risk becoming a mobile Vanilla Ice: a one-hit wonder.

There are basically two ways to measure retention. Consider the following example: The day a user downloads your game is *Day Zero*. If that user starts a session on Day One, she





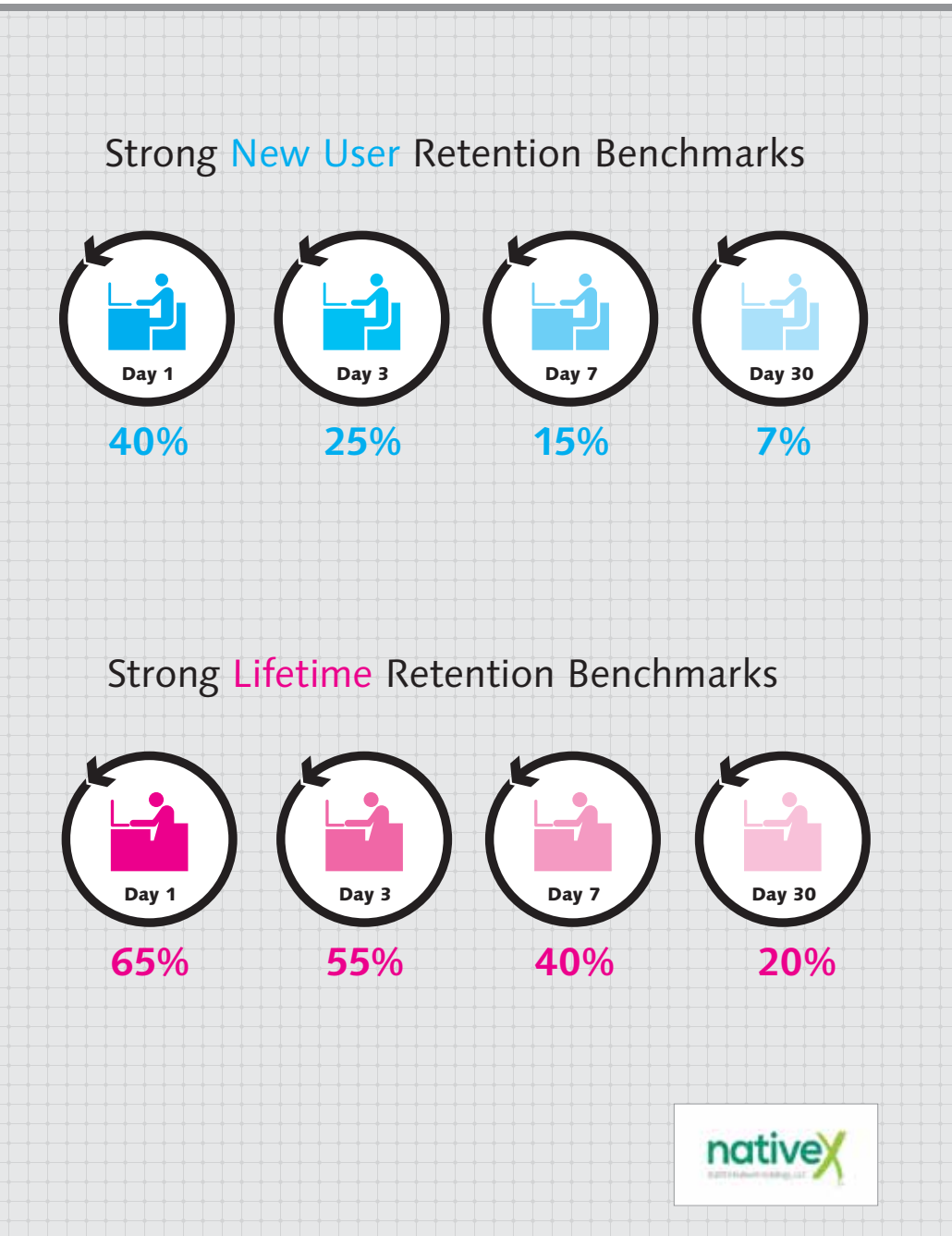
How frequently do gamers play your game? For how long do they typically play? How much money are they dumping into the game? It is obvious that these metrics are important, but what exactly do they tell you about a game, and what are good benchmarks to shoot for?

is considered “retained.” If she does not start a session, she is not retained. This calculation is made every day across all users who downloaded your game on the same calendar date, and each day’s retention metric is independent of all other days.

When calculating retention this way, strong retention benchmarks are as follows:

There will be some variance based on the game genre, as endless runners or level-based games don’t have the longevity to match the retention of a role-playing game or player-versus-player game.

The second way to calculate retention revisits the original example. The user initiates a session on Day One and is considered retained. Then she takes a break for Days Two through Five. On Day Six she comes back and starts playing again. Some notable analytics providers calculate retention by filling in Days Two through Five and count the user as retained. The standard for this style of retention marks the user as retained for seven days before and after a single session.



This second way takes a long-term view of retention, analyzing the Lifetime Value (LTV) of a user with the game. Be aware, however, that this user is not being counted as a DAU on Days Two through Five. Since she is not initiating a session, there is no way she can be monetized, which is one of the most important aspects of free-to-play game design. The ranges for this style of retention are much

broader since a significant amount of data is being estimated. With that in mind, strong lifetime retention benchmarks are shown below:

Neither style of calculating retention is more correct than the other. Just know which type of retention numbers you are looking at, and make sure your comparisons are apples-to-apples.

The Metrics that Really Matter in Mobile

MONETIZATION

Money Your Users Spend

As with most things, the success and health of a game can best be measured by its bottom line: how much money it's making. A key difference between mobile games and other businesses is the number of ways to measure monetization. As games have relatively short lifespans, there are a few things developers need to keep their eyes on to make sure they're effectively monetizing their user bases in the short timeframe that they have a user's attention.

ARPPU

Average Revenue Per Daily Active User is one of the most common monetization metrics in the mobile space. It provides developers with a sense of how their games are performing on a daily basis. For most games, \$0.05 is a good benchmark, but as a game's DAU count climbs, some games that are very healthy financially may dip below this threshold. Games with exceptional monetization will have ARPPUs between \$0.15 and \$0.25.

ARPU

Average Revenue Per User measures how much a game earns per user that has ever downloaded the game. While ARPPU captures a day's worth of data at a time, ARPU measures the total monetization of an aver-

age user. The main difference between ARPU and LTV is that ARPU does not project how newly acquired users will monetize in the future. An ARPU of a certain value does not guarantee a financially successful game because it does not take into account the cost of acquiring users.

ECPI

Effective Cost Per Install is the cost of all user acquisition funding per user ever acquired (including those acquired organically). Smart user acquisition plans will help keep this cost down. Profitability will come once your eCPI is smaller than your ARPU, which may not be the case from the start.

LTV

Lifetime Value is a similar metric to ARPU. Lifetime Value takes into account what users have done since downloading the application while also projecting how they will spend in the future. There are multiple ways to project how user behavior will change over time. The basic end of the spectrum is a linear projection, and the complex end of the range includes predictive analytics calculations.

CONVERSION RATE

Conversion Rate is the percentage of users who execute an in-app purchase. In most games, one to two percent of users will pay for virtual currency. In healthy games, the conversion rate is closer to three to six percent. Few games can boast a 10% conversion rate or higher, and usually these are games that focus on a niche audience (like hardcore games) as opposed to mass market.

ARPPU

Average Revenue Per Paying User is the average spend for all paying users. This metric varies quite drastically, even between games with healthy monetization. At NativeX, we've seen typical figures range from \$5 to \$20, but of course there are games with an ARPPU below \$5 and others that exceed \$100. As with Conversion Rates, titles with very high ARPPU usually do not have mass market penetration.

As games have relatively short lifespans, there are a few things developers need to keep their eyes on to make sure they're effectively monetizing their user bases in the short timeframe that they have a user's attention.

Often these categories of metrics will go hand in hand, especially retention and monetization. It is rare that a game has stellar long-term retention and poor monetization unless monetization is an afterthought while the game is being designed.

Ultimately, it comes to this: Healthy apps retain users. It is uncommon (read: as uncommon as unicorns) for apps to thrive if they don't keep users coming back. These metrics allow app developers to see the strengths and weaknesses of the games they develop. Not only do they allow developers to improve existing apps, they also help them know what works well for future projects. ✨

Most people know about daily active users and monthly active users, but if you're only looking at those stats on their own, you're missing a major chunk of the big picture.

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Postmortem

Playing in Our Own Sandbox

The Making of *The Sandbox*

Pixowl is a mobile game company founded in 2011, with headquarters in San Francisco and a development studio in Buenos Aires. In May, 2012, Pixowl introduced *The Sandbox*, a game which TouchArcade says “straddles the border between game and art project.” To oversimplify: The game challenges you to create your own universe through the exploration of resources such as lightning, lava, sand, glass, and many others. With over 100 missions to complete along the way, “you’re limited only by your imagination” (as we like to say). Now available for iPhone, iPad and Android, *The Sandbox* already has over 4 million players and was nominated by Apple as one of its Best Games on iTunes in 2012. At launch, *The Sandbox* was also featured on Google Play.

The Sandbox was born from the idea of bringing the underground phenomenon *Falling Sand Game* to casual audiences, taking the depth and complexity of *FSG* and making it more approachable and user-friendly.

Origins of the Project

The project all started by hiring Onimatrix (“Oni”), a developer whose real name is Pablo Iglesias, so that he could continue to work on porting *The Sandbox* (his personal project) to mobile and tablet devices. Originally launched on the Kongregate platform, his project had already garnered some traction based on word-of-mouth alone, with 800,000+ plays and thousands of worlds shared—even though it was targeted at a very niche category of players, with a pretty basic interface, and no tutorial, instructions, levels or flow that you would typically enjoy on mobile games. It was, you might say, purely a physics sandbox: dropping elements over a black screen and checking their interactions—that’s it!

The Sandbox was born from the idea of bringing the underground phenomenon *Falling Sand Game* to casual audiences, taking the depth and complexity of *FSG* and making it more approachable and user-friendly. Simple game-play mechanics and game sessions with flexible schedules seemed tailor-made for casual gaming, while touch controls and a puzzle mode gave the old-school game some much needed fresh air.

Beginning of Development

A lot of development time went into the creation of tools to make content creation easier. Everything from a level designer to packing/unpacking/checker tools were made in those first months and were updated throughout the project. We also gave Oni a lot of support so that he could create prototypes of possible new features.

Almost every complex game feature—weather, lighting, temperature, virus behavior—was first a throwaway prototype (or several). Our goal was to find out if they added



to the user experience without spending a lot of time on them.

In the first few weeks, we started assembling a senior team around Oni. Guillermo Averbuj, a game designer, Sebastian Koziner, lead artist and project manager, and Gerardo Heidel, a second developer, all brought more than six years of experience from the console game industry. Since all of the developers knew each other from previous work experience, the team quickly began working in perfect symbiosis. We knew that their complementary talent could spark great things. We just had to point them all in the right direction.

Not Quite What We Expected

Within a few months we had in hand a rather satisfying alpha version of the title—or so we thought. We presented it to Apple during an editorial meeting regarding the studio’s other games. We didn’t have to wait long to get their



by Sebastien Borget;
Co-Founder, Pixowl;
San Francisco, CA

Almost every complex game feature—weather, lighting, temperature, virus behavior—was first a throwaway prototype (or several). Our goal was to find out if they added to the user experience without spending a lot of time on them.

first reaction: They said the concept was original, but it was the type of product that Apple editors could *never* feature—mainly because it was not mainstream enough and the graphics were “as ugly as on Commodore 64.” *Ouch!*

We left that meeting livid, with white faces, assuming we had received the *NO* answer that would doom our project. We knew that being featured by Apple could be worth more than all of our other marketing efforts combined, and receiving a straight *NO*—not even a *maybe*—would likely condemn the title to remain a niche game capable of generating no more than a few thousand downloads. Needless to say, morale was pretty low following that meeting.

Apple editors said... the graphics on the alpha version were “as ugly as on Commodore 64.” *Ouch!*



Reacting Quickly

Rather than letting the issue overwhelm us, we acted quickly. After discussing the situation internally, we made the very risky decision to continue the project. *We trusted our own instincts, and we knew we had assembled a strong team*, so we decided not to abandon the project on that first external impression. We determined to go on, to revise our copy, improve the quality, enhance the visuals, and make the game more modern and appealing. It wouldn't be easy. *We knew it would require even more effort, and that ultimately it could turn out to be for nothing.*

Once we identified all the title weaknesses, we decided to rework our approach to the game and make it more casual and attractive. We improved the graphics to look like modern retro, with shadows and gradient effects, but still keeping pixel art. And we polished the game design to integrate a “story” mode with campaigns of levels that would teach the beginner the game-play mechanics.

Time for Beta Testing

Three months later, we had a new version of the title—this time a beta. Rather than test our copy on Apple again, we put it in front of true players instead. We launched a public

The Sandbox

beta of the game in March 2012, collecting feedback from more 1,000 players over the course of two months during which we updated testers each week with a new build.

We measured every aspect of the game through satisfaction polls and feedback survey forms, analyzing and reviewing what was right or wrong in the game. Overall, we didn't make major changes to the game-play since players were already pretty satisfied. Meanwhile, the sharing feature in the Online Gallery started to catch on, with players sharing really amazing pixel art and animated worlds. When we saw how players were using the game to build their own stuff, we knew we were on the right track!

Relationship with a Publisher

We also looked for a publisher who could support the launch of the title, and we found Bulkypix to be the perfect partner for the job. Bulkypix's greatest strength is that it is a publisher of premium titles. They helped us get the title featured on the App Store and generated great press coverage at the launch.

One challenge was that Bulkypix didn't have deep experience with freemium games—and *The Sandbox* was planned as a freemium title. Traditional premium publishers only look



at stores and press relationships as their game launch model. With freemium, this becomes only a tiny part of their role, as the modern trend is to work on social marketing and user acquisition, and this throughout the product's lifespan.

I may have spent literally half my time in the first year doing community management, finding partners, negotiating deals and campaigns, all in an effort to perform successful,



targeted user acquisition for *The Sandbox*. We worked to balance CPI, ARPU and Lifetime Value, to improve monetization in order to fund further customer acquisition, and to find other games that fit our audience in order to cross-promote via Chartboost. We pushed Bulkypix hard, but ultimately it was mutually beneficial: We helped them learn how the freemium market works, and they shared with us their expertise with the press and the portals.

Launch and Beyond

Yet, we didn't have a lot of time. The submission deadline we agreed to with Bulkypix was fast approaching, and we clearly were lacking



time to add universal support and test it all properly—so we decided to launch without it. (In July we submitted an update which included it.) We have released a total of ten updates since the initial launch, six of which include new campaign levels and elements. The content of the title has more than tripled since the first release. We also hired a new member of the team as QA tester, but he quickly proved himself and became the level designer of the title, creating compelling campaigns and mind challenging puzzle levels.

We have kept the title pretty much alive on the App Store. We engage with the community through regular updates, and each day we post on Facebook and Twitter the best worlds shared by players in the Online Gallery. In addition, we post a weekly "Best Of" video on YouTube. *We love to feature the kickass productions of our players!* Some have even created piano melodies, light shows and animated pixel art that we could never have imagined ourselves.

Monetization

Monetization came quite late in the game design process. When we had the Beta running, we simply made any element accessible to players without further involvement on their end. After consideration, we decided to make the game a freemium title so there would be



no barrier to downloading it. And we wanted to make sure anyone could play the main story without any purchase required.

At launch, we still didn't know if we had chosen the right model—it was only through successive updates in which we offered more mana, more levels and more elements that we confirmed that we had enough player satisfaction to generate the revenue required for us to continue our passion.

DOUBLEDOWN INTERACTIVE



ABOUT DOUBLEDOWN INTERACTIVE

DOUBLEDOWN INTERACTIVE, AN **AWESOME** WHOLLY OWNED SUBSIDIARY OF INTERNATIONAL GAME TECHNOLOGY (IGT), IS THE LEADING CASUAL GAMES DEVELOPER OF “FUN TO PLAY” CASINO EXPERIENCES ON THE WEB AND MOBILE, WITH VETERANS FROM TOP ONLINE GAME COMPANIES. THE TEAM IS COMMITTED TO PROVIDING CONSUMERS AN ONLINE SOCIAL CASINO EXPERIENCE THAT IS UNRIVALED BY ANYTHING ELSE AVAILABLE. DOUBLEDOWN INTERACTIVE IS BASED IN SEATTLE, WASHINGTON.

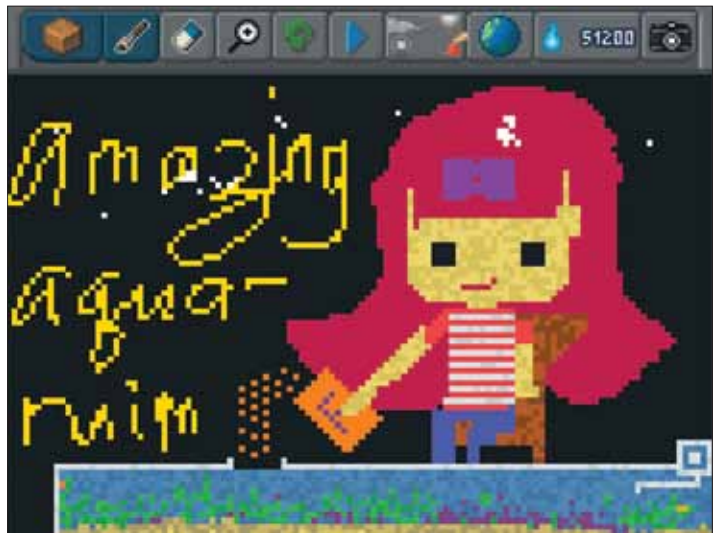
ABOUT IGT

INTERNATIONAL GAME TECHNOLOGY (NYSE: IGT) IS A GLOBAL LEADER IN THE DESIGN, DEVELOPMENT AND MANUFACTURE OF GAMING MACHINES AND SYSTEMS PRODUCTS, AS WELL AS ONLINE AND MOBILE GAMING SOLUTIONS FOR REGULATED MARKETS. MORE INFORMATION ABOUT IGT IS AVAILABLE AT IGT.COM OR FOLLOW IGT ON TWITTER AT [@IGTNEWS](https://twitter.com/IGTNEWS) OR FACEBOOK AT [FACEBOOK.COM/IGT](https://facebook.com/IGT).

The Sandbox

The Sandbox is not a top grossing title, so in the end we have probably earned just about what we spent in development and marketing. But the game is unique, fun and accessible. We do run a lot of contests and promotions on our Facebook page as part of our community management, and we believe it works quite well in as much as we have succeeded in growing the Facebook page to over 45,000 fans.

We love to feature the kickass productions of our players on YouTube! Some have even created piano melodies, light shows and animated pixel art that we could never have imagined ourselves.



Development: What Went Wrong

Working with third party SDKs is not always easy. Usually when we found ourselves with a broken game, it was due to some little black box doing its thing in a way that, for example, made our game rotate and stretch when entering the IAP screen. What's worse, it's hard to



prevent this kind of behavior. Often the cure was to simply change the SDK for another similar one—if one existed—or to remove the feature entirely.

We also had some trouble when a new iOS version or iDevice was released just a few days after one of our game versions went live. We couldn't foresee how, for example, the iPhone 5 screen would change our game. (It turns out that *The Sandbox* is very affected by resolution changes due to its game-play). In addition, one of our biggest challenges was the lack of programmers working server-side. We had to cut a lot of features when we found ourselves unable to find experienced backend developers, and we got some nasty bugs when working with part-time coders.

The Big Surprise

In mid-December, 2012, we were hit with a big surprise. Unbeknownst to us, *The Sandbox* was included on iTunes' BEST OF 2012 list in the "Hidden Gems: Games" category. We weren't informed we would be there... until we were!

The future of the IP now lies in the hands of players. If they keep wanting more levels and elements, we will continue to make them.

Many have asked us for a PC/Mac or Web version. We're listening, and we've submitted an enhanced version project to Steam Greenlight, for example. We do believe that we haven't yet reached that tipping point where the title is so popular everyone knows about it. Can we reach it? Hell, yes!

And maybe *The Sandbox 2* will be a next-year project, when the next generation of devices will allow us to deploy more intense physics. (We already have developed more complicated features, but because they lag on older devices we have decided not to include those features in order to maintain positive user experience.) We also look forward to raising the graphics bar by multiplying the number of pixels on the screen.

The lessons we've learned is that the road to success is a road paved with obstacles, unexpected events and tough decisions. But with perseverance, a good organization, a focus on quality, and a bit of luck, it can lead to great success! ✨



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Indie Corner

10 Tips on Promoting Indie Games on a Low Budget

In *Go To Hell Dave*, Dave was just a normal guy with a typical life until he smashed his car into a lamp-post, with his girlfriend Sharon in the passenger seat. Waking up at the gates of Hell, Dave discovers that his girlfriend has gone, Satan is missing and Hell has become a dilapidated mess.

Definitely more of a comedy than a horror game, *Go to Hell Dave* is an adventure in which you will take Dave on a tour of Hell's nine floors, none of which you'll ever have read about in *The Bible* or *The Divine Comedy*.

I developed this game with Falchion Games' other Co-Founder and Producer, Ben Burns, bringing it to market on a very low budget. Here are a few things we learned in the process:



I wander around with my smart phone and look at all their ID cards. If I see someone with PRESS or someone who could help me, I walk up to them and talk.

1

Make the most of any convention.

You don't always need your own booth to talk to people and show off your product. I wander around with my smart phone and look at all their ID cards. If I see someone with PRESS or someone who could help

me, I walk up to them and talk.

Recently I was at the gadget show. By just having the guts to walk up and talk to people, I got contact details from journalists, investors and MSN.

2

If you have a good product, show it off and shout about it.

I do a lot of podcasts, and I email a couple of news sites every day. You have got to keep the ball rolling, and eventually someone will bite.

Just by messaging a small number of Facebook followers or doing podcasts, you can work your way up to being presented on bigger podcasts. So far I've been on Aussie Gamers, ThisIsMyJoystick.com, Metallman's Reverie and Game Fix.

3

This one maybe difficult for some, but if you can, **try to become an admin on a Facebook page related to your game.** For example, my partner and I



are both admins on gaming Facebook pages with 20,000+ likes each. This means that when we need to, we can advertise to around 10,000 people for free. (Facebook pages never reach the full 20,000 unless you pay).

If you can attend the bigger events, even if you are just going as a paying customer, you should still go. Every gaming event is an opportunity to network and promote your product.



4

Use all social media, even if you are not a fan.

I've recently been using Twitter just to chat with developers. Forums are good, but be prepared to be banned or abused.

Some forums may accept your product placement, but many will reject it.

I speak to a lot of developers such as Skygoblin, developer of *The Journey Down*, and Mike Bithell, developer of *Thomas Was Alone* and *Merlin*. Both of them are in the same market I am, and communicating with them is a great way to get feedback and increase my social media presence.

5

Stay connected with all the gaming events in your local area.

Support them by going, and make a name for yourself. If you can attend the bigger events, even if you are just going as a paying customer, you should still go.

Every gaming event is an opportunity to network and promote your product.

Since we live in the UK, we go to Euro Gamer, GameCity, Game Dev North, launch events as well as Be Inspired and TIGA.

6

An easy one to do is to create business cards and a bit of promo materials

(such as leaflets, badges, and banners) for your game. I

can't tell you how many times I've

been looking for new artists who didn't have a business card and I haven't been able to get back to them. It's a problem that is easily avoidable.

I'd also recommend designing the art yourself to avoid disappointment.

7

Be on time.

This applies to all events, meetings, podcasts, etc. Being late is one of the worst things you can do.

Also, don't schedule meetings weeks in advance; you may forget about them.

And once you get a meeting, keep it brief. If you go on for too long, people will get bored and lose interest.



8

If you went to a tech university or college, stay in touch

to see if and how they can help you. For example, we managed to get trade event tickets to a gadget show thanks to our university connections.

9

Never be too arrogant to take advice.

Whether the advice is from a new startup or a 30-year pro, we all have different problems and skill areas. Make sure you get what you can out of people's time. On the flip side, consider whether this will help your business or if this person is in a completely different market.

The best advice I ever got was, "Fake it till you make it." It was from a business mentor. There will be times when you feel like the underdog, but you're all on the same playing field when you have a great product to show off.

10

Get the best talent you can find and afford.

There are lots of artists out there, so don't just settle for the first one you find.

Check out websites like Deviant Art (www.deviantart.com), where you'll find lots of young artists begging to prove themselves to the world. For instance, this is where we found our background artist, cover artist, sprite artist and comic book artist. *



The best advice I ever got was, "Fake it till you make it." It was from a business mentor. There will be times when you feel like the underdog, but you're all on the same playing field when you have a great product to show off.

Studio Spotlight

GungHo Online Entertainment

COMPANY: GungHo
YEAR FOUNDED: 2002
URL: www.gunghoonline.com
HEADQUARTERS: Tokyo, Japan
EMPLOYEES: 990

Our company philosophy
 is: "A smile for everyone."



Kazuki Morishita



GungHo Online Entertainment started as an online gaming company back in 2002 when I secured the rights to host the classic MMORPG, *Ragnarok Online*, in Japan. Before that, the game was exclusive to Korea. The Japanese version quickly grew, and after three successful years, the company was listed in the Osaka Securities Exchange.

In 2005, GungHo acquired Game Arts (known for the *Grandia* series) and began full-scale development for console platforms. Acquire, known for the *Shinobido* series, joined GungHo's family of development studios in 2011. Finally, in 2013, GungHo acquired *Lollipop Chainsaw* developer, Grasshopper Manufacture.

In 2012, we released a mobile game called *Puzzle & Dragons*. It quickly became a smash hit and was ranked the top-grossing game in the world for both the App Store and Google Play. We believe that our background in developing quality console titles, combined with our experience in online operations, helped lead to this success.

100% Fun Games

Our company philosophy is: "A smile for everyone." Unlike IT companies, we don't structure our development around offering various services. We simply devote ourselves to making fun games all the time.

Our approach to creating fun games is pretty simple—as reflected by the fundamental principles that guide our development process:

- 100% fun
- Even if it's a fun idea, you have to really think it through and iterate until you've absolutely maximized the fun



Group photo from
 Ragnarok Online Fan
 Appreciation Festival 2013

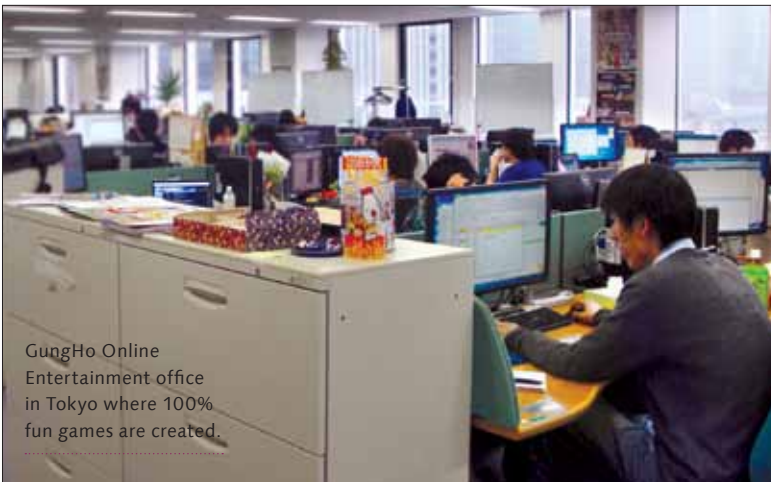


by Kazuki Morishita; President & CEO,
GungHo Online Entertainment;
Tokyo, Japan



GungHo's on-site
studio

GungHo Online Entertainment started as an online gaming company back in 2002 when I secured the rights to host the classic MMORPG, *Ragnarok Online*, in Japan. Within three years, the company was listed in the Osaka Securities Exchange.



GungHo Online
Entertainment office
in Tokyo where 100%
fun games are created.



Reception area.

- If you don't think you can reach that level of "ultimate fun," it's time to set that project aside
- Finally, even after the game is out, you should still dig deeper to reveal its ultimate potential

Internally, we called this the *100% Fun Fruit Juice*—like those bottles that say 100% pure fruit juice. It means if the game is not 100% pure fun, it won't get made.

If we really believe that a game is 100% fun, and it doesn't perform well, we have no regrets! On the other hand, if we release a game that is only 80% or 90% fun, whether it succeeds or fails, I believe we would still have some regrets. So how do we raise the fun factor? The first thing I'd say is that the developers themselves need to have fun. If you aren't

enjoying something, how can you convince anyone else to?

Instinct for Entertainment

Back when I was in school, my dream was to become a comedian. As I got older, I didn't seriously pursue that career path, but one thing about me never changed: I still love to entertain people.

Perhaps that's why I decided that GungHo would take part in the largest samba festival held in Japan last year. A few hundred of us—including our developers and engineers—participated in the Asakusa Samba Carnival. Leading up to this event, we practiced for two months. Although many might consider this a waste of time and an inefficient way to manage our game development resources, the fes-

GungHo



Zeus



Popular Puzzle & Dragons monsters



tival provided further proof that we are serious about entertaining others and doing whatever it takes to achieve that—even if it has nothing to do with the work or the performance of our products.

I look at it this way: Games are part of the entertainment business—just like film, TV, theater, etc. All these forms of entertainment are basically rivals in that they are competing for your leisure time. To stand out as “fun” against all of that is not very easy. On top of that, “fun” is a subjective term—determined strictly by personal taste. Everyone’s scale

I use *What I Truly Think Is Fun* for a benchmark. Rather than going off theory, I have to trust my intuition.

for fun is different, so there is no perfect formula to create fun content.

That’s why I use *What I Truly Think Is Fun* for a benchmark. Rather than going off theory, I have to trust my intuition.

And of course, we plan to show off our moves at the Samba Carnival again this year.

GungHo’s Five Guiding Principles and Luck

Our idea of FUN is based on the following five principles:

- *Be Innovative*—Develop new game designs that haven’t been done before.
- *Be Intuitive*—This is about simplicity. You should be able to understand what’s going on and what you need to do the moment you pick up a game.
- *Be Captivating*—Have an element that appeals to users and pulls them in.
- *Be Sustainable*—Have a system or level of service that encourages users to play continuously.
- *Be Encouraging*—Have a feature that brings smiles to our users, such as rewarding them after an achievement.

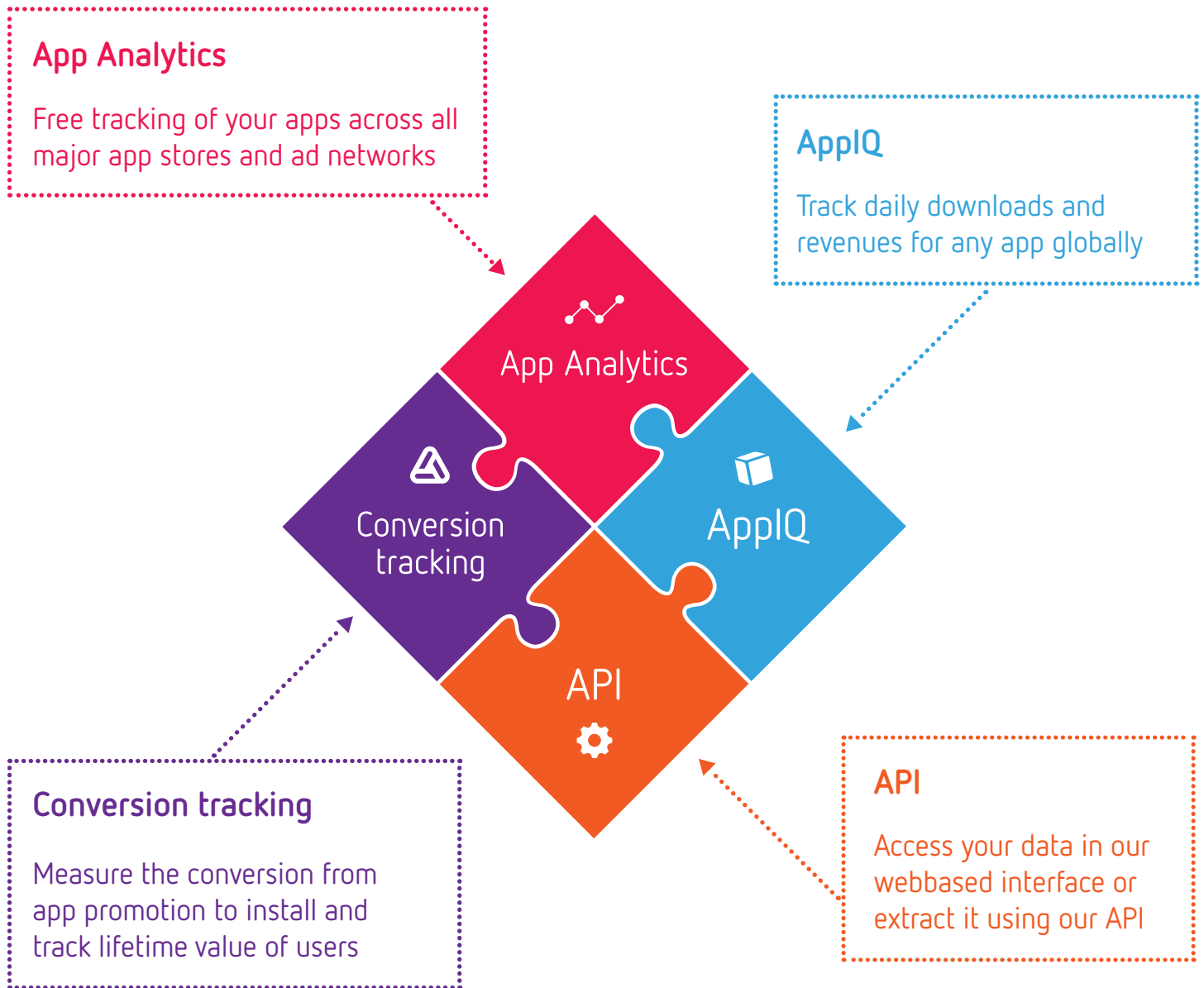
Of the five principles, we value innovation the most. Being innovative is the single most important thing in a game concept. It’s the idea of bringing something to the table that did not exist before. In the case of *Puzzle & Dragons*, an innovative game was born through combining puzzle and RPG game designs.

One other reason for our success should not be overlooked: *luck*.

Have a Snack!

Another important element of our development philosophy is this: If you think of console games as the

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10 year anniversary illustration



main entrée, smartphone games are more like snacks. They can be played in bite-sized amounts of time, and even though each “bite” may be small, it’s so tasty you can keep eating without getting bored. By comparison, when playing a console game, users must sit in front of their TVs and dedicate more attention to the experience. They take their time to savor the “meal.”

My business plan doesn't include how many games we should develop and publish in a year. Instead, we focus on innovative game concepts and release them only after they've achieved that 100% fun factor.

The one thing the snack and the main dish have in common is that they both need to be delicious! When you snack, each bite happens quickly, and there is a certain pace to it. At the same time, you usually don't get full after just one bite. Smartphone games are the same way; however, with so many other digital snacks already available—and more coming every day—if a snack is not incredibly delicious, it will soon be forgotten.



Ultimate market experience as dozens of players shop



Big crowd gathers for the 10th anniversary countdown

In *Puzzle & Dragons*, there is a maximum turn length of about four seconds (once you start moving an orb). Even if you've only got a few minutes to spare, you can put your thumb to the screen, enjoy a few quick nibbles of game-play, and get on with your day. There is no punishment for pausing in the middle of a stage, so users can start and stop whenever they wish. We think this helps account for the high retention rate of our players.

Management Style

We have a unique organizational structure in that I take on the roles of both President and CEO—in addition to Executive Producer. This means I oversee GungHo's business operations as well as its creative directions. My business plan doesn't include how many games we should develop and publish in a year. Instead, we focus on innovative game concepts and release them only after they've achieved that 100% fun factor. I think this kind of business decision is only possible when you oversee both the business and creative sides of a company. My primary goal is to create a structure that facilitates the creation of games that are purely fun.

We were fortunate that *Puzzle & Dragons* became a worldwide hit, but we won't change our philosophy in any way. All that matters is that we continue to develop fun games. ✨



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Exclusive Interview

The Videogame Professor

An Interview with Ian Bogost

Dr. Ian Bogost is a leading scholar of interactive digital media and a co-founder of Persuasive Games. As a scholar, he earned his PhD in Comparative Literature from University of California, Los Angeles, and now serves as Ivan Allen College Distinguished Chair in Media Studies and Professor of Interactive Computing at the Georgia Institute of Technology. He has authored and co-authored books that are foundational to the studies of videogames and interactive media, including *How to Do Things with Videogames*, *Persuasive Games: The Expressive Power of Videogames*, *Racing the Beam: The Atari Video Computer System*, and the recently published *10 PRINT CHR\$(205.5+RND(1)); : GOTO 10*.

As a game designer, Bogost creates games that comment on social and political issues. His games have dealt with airport security, consumer debt, disaffected workers, and the petroleum industry—to name just a few. Two of his most notable games are *Cow Clicker*, a Facebook game designed to parody standard Facebook games like *FarmVille*, and *A Slow Year*, which uses games as a spark to create the sort of emotional and artistic experiences otherwise associated with poetry.

Q&A

When did you realize you wanted videogames to be a significant aspect of your career?

IAN BOGOST: As a kid I had no idea, of course, but in retrospect there were some signals. I was very much interested in books, painting, and other forms of the arts. And I was also very interested in computing. At the time I didn't really think there was any relationship between them, but I did play videogames, and I did have the opportunity to learn some computer programming at an early age. At some point those threads must have braided themselves together in my mind, because eventually I knew that I had to satisfy both interests—that of computation and the arts. I'd dabbled in making games on my own, but I hadn't tried anything serious. I was too young to be a solo, baggie-dev of the early 1980s, and I was too young to be a shareware-dev of the early 1990s. Or else I wasn't paying attention. Instead I got wrapped up in simulation games like *SimCity*, *Life & Death*, and *Civilization*, which proved important later on. Anyway,

later, as I was working in the tech and entertainment industries in the mid-1990s, when the commercial Web was new, I started working on games commercially, and it was there—in the weird ghetto of advergames and branded film tie-ins—that the seeds were sown for much of the professional development work and research efforts I would later pursue.

You earned your BA in Comparative Literature from the University of Southern California in 1998, and went on to earn your PhD in Comparative Literature from UCLA in 2004. How did your professors react to your desire to study the videogame medium?

IB: Those dates aren't so long ago, but things are quite different today than they were when I was in school, in terms of what it was possible to study. At Georgia Tech, where I teach, we have bachelors, masters, and doctoral degrees that somehow combine computing and the liberal arts. That's both fortunate and unfortunate for different reasons. In any case, I had to live two somewhat separate lives at the time, doing philosophy and comparative literature in school and working professionally in technology.

The two didn't have much to do with one another for some time, and I'd more or less resigned myself to the fact that they wouldn't. I figured I'd finish my PhD and go back to work in the industry. I tried to just punt with my dissertation, to do something traditional, but thankfully several of my mentors at UCLA—Emily Apter, Ken Reinhard, and Kate Hayles—wouldn't let me. They pushed me to find some synthesis of philosophy, literary studies, and computing, and so I went back to the drawing



Atlanta, GA

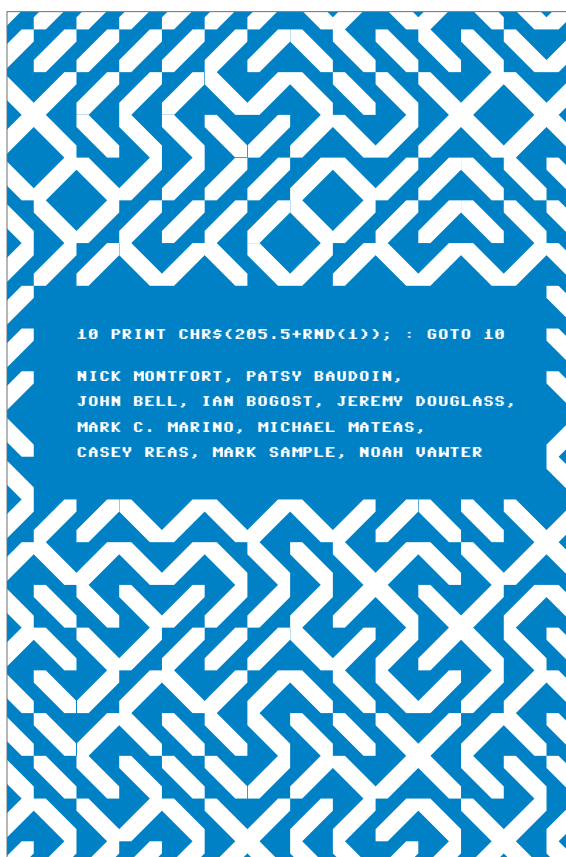
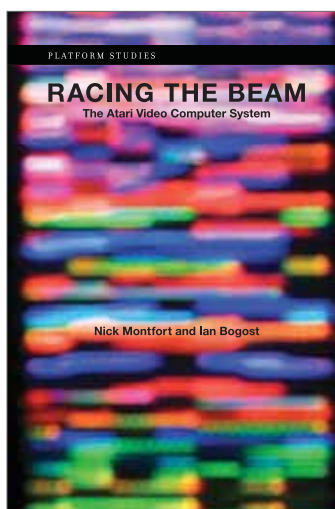
Ian Bogost
Founding Partner, Persuasive Games;



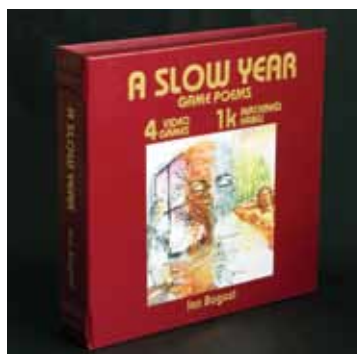
 **ALIEN** 
PHENOMENOLOGY

or  **WHAT**
It's LIKE to 
Be a THING

IAN BOGOST



Ian Bogost



board and focused on videogames. Good thing too, because I was fortunate to be able to take advantage of the then-still-new field of game studies.

You've been able to build this great career as a scholar of and a producer of video-games. How has this been received by other academics? And with the digital humanities increasing in popularity, do you

think more scholars will strive to have a hybrid professional/academic career?

IB: Definitely. Both in industrial and academic contexts, I think people are coming to realize that it's not enough just to create, nor just to theorize. I think that's true in industry as much as in academia—we need concrete and persuasive theories and design philosophies to motivate creation as much as we need experience in creation in order to do good criticism.

Engineers have always had this attitude, or versions of it at least, but certainly it's been less popular among scholars in the liberal arts. In part, the shift is not a happy one; the liberal arts are suffering more from reduced funding, support, and public interest than are the science and engineering disciplines. I don't believe that the humanities are getting just what they deserve, not by any stretch. But I do think that the liberal arts had become too proud of their disconnect with ordinary life, with the trials of just getting by and doing things in the world, and

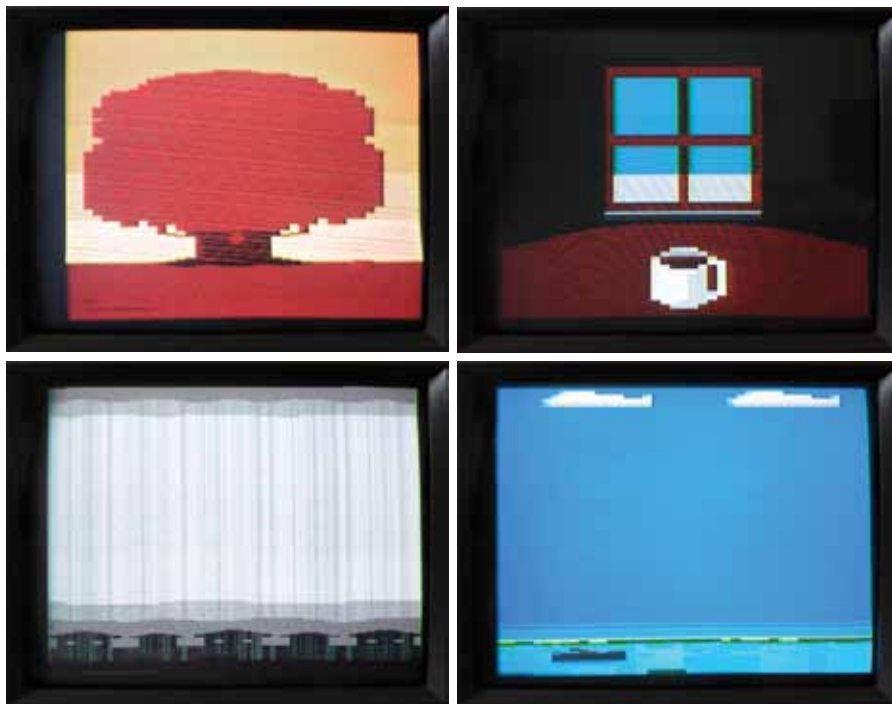
part of recovering that humility involves making more things, and a wider variety of things. In my recent book *Alien Phenomenology*, I even talk about a kind of philosophy, which I call “carpentry” that involves making things rather than just writing or talking about them.

As for hybrid professional/academic careers, that’s really quite common in the sciences and engineering disciplines anyway, not to mention in design and architecture. Perhaps scholars in the social sciences and liberal arts are catching up, but perhaps they also have the opportunity to establish a new way of being in two places at once.

More and more scholars are beginning to study the cultural significance of video-games. What are some of the misconceptions you think academics have of video-games and the gaming industry? And on this note, do you feel there some misconceptions that game producers have about scholars?

IB: Academics who have spent time in and around the industry see it for what it is: a complex set of people, organizations, and forces that have been stumbling toward progress, acceptance, and renown like any other industry. Overall, I think most scholars today misconstrue the state of the industry as a simple set of “correctable” facts. For example, they notice the issues of increasing the number of women or minorities working in games, or expanding the application areas and topics in games, and so forth. It’s not that there aren’t some simple aspects to these matters, but the current state of affairs in the business is bound up in decades of technology development, business evolution, commercial ebbs and flows, and similar developments. I guess a less wordy way of saying this is that scholars don’t necessarily have a firm enough grasp on the technical and cultural history of videogames. It’s just too easy to surf current trends.

That said, the industry doesn’t necessarily understand the technical and cultural history of videogames, as we reinvent the same trends over and over again. But I think the more important misconception game producers have about scholars is that, whatever it is we’re doing, it has nothing to do with them—that it’s separated from the reality of making games, when in fact the industry gets a great deal of benefit from scholarship and research in video games. At Vice President Biden’s gun control task force, which he convened after the Sandy Hook mas-

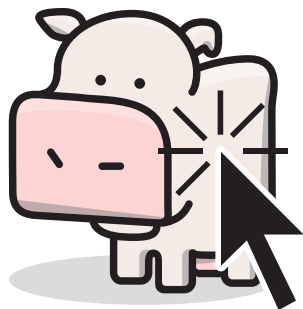


sacre, he told representatives from the videogame industry that they could help improve the public’s perception of them. He was right, and in fact a lot of the best public advocacy for games comes from scholars and critics rather than the games industry. The industry says things like “people vote with their wallets” or “this isn’t about politics,” and then goes back to work, which amounts to hiding its collective head in the sand. Meanwhile, folks like me are out hitting the pavement every day, going to bat for this often selfish, greedy, sexist, miserable industry, reframing its works in a way that helps ordinary people maybe see some shard of its value. So, scholars are hardly the disconnected navel-gazers we’re sometimes made out to be by the industry.

You have discussed how popular games reference important topics. For instance, when you were on the *Colbert Report*, you mentioned how *Grand Theft Auto: San Andreas* highlighted the problem of diets in urban environments. In your opinion, what is one popular game that you think has a surprisingly nuanced critique of a social issue?

IB: All of Rock Star’s games are fairly detailed social critiques with a lot of subtlety and depth. But that’s too easy a choice, too obvious. I think instead I’d choose *Animal Crossing*, for the subtle and surprising way it pits naturalism and pastoralism against urban-

Ian Bogost



ism and consumption. You'd never think that dynamic would be in such a weird, silly, children's game, but when you play it, the themes are hard to ignore.

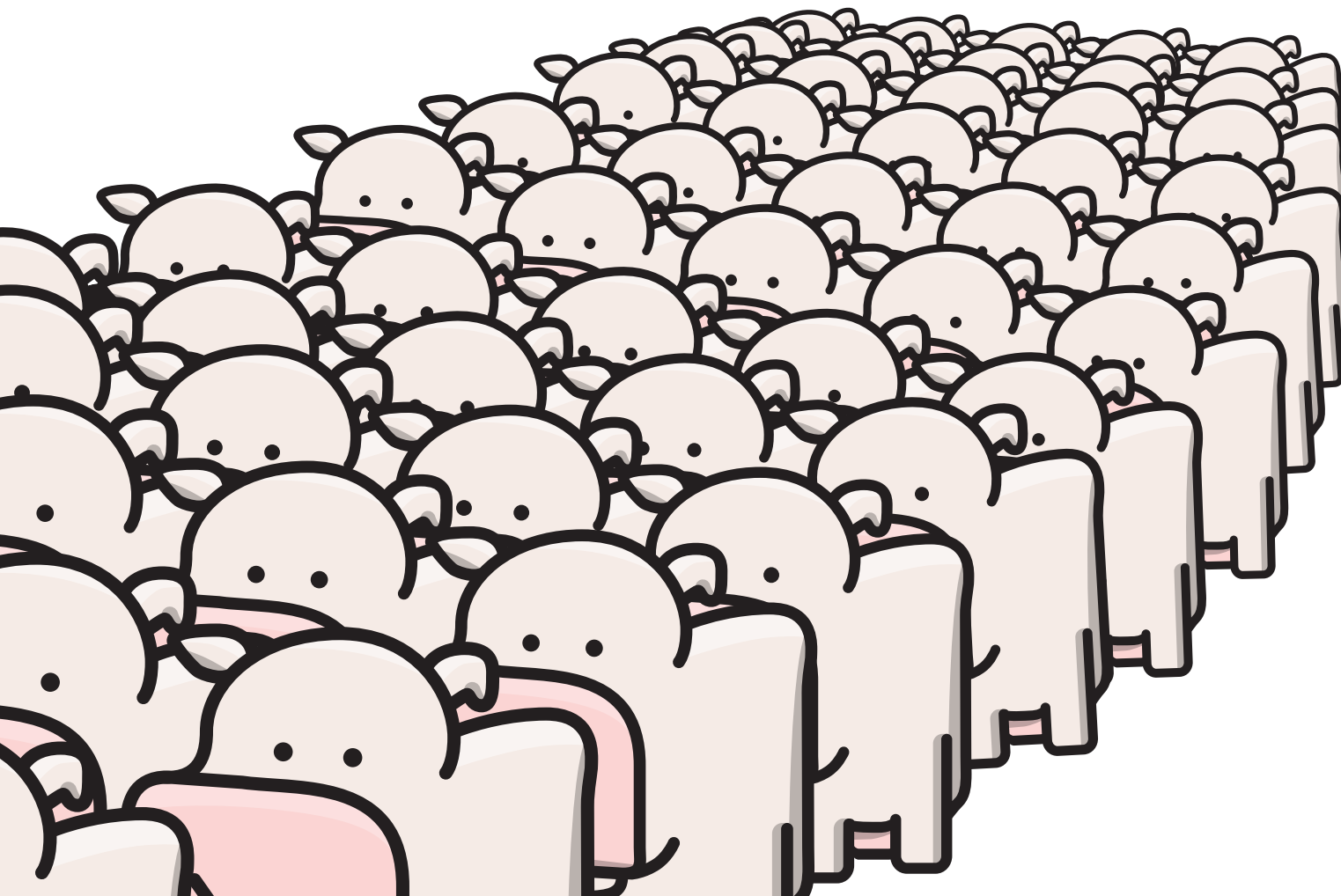
In my book, *Persuasive Games*, I told the story of my (then) five year-old son, who asked my advice after falling into an unfortunate confluence of long-term debt and short-term commercialism: he had bought a bunch of furniture and clothing and stuff to put in his house, but he needed more room to store it all, and he figured out that paying down his mortgage would allow him to expand to a bigger house... but he also knew that he didn't have enough money to do so, since he'd spent it all on the stuff that was taking up room in his house.

That's one example. Not the only one, but a pretty effective characterization of the way this little toy of a game offers a really nuanced experience of property. And of course, when you're not working on your own house, you have the community and the envi-

ronment to tend to, and often those two poles are opposed to one another, resulting in the uncomfortable pressure of negotiating between the public good and your own personal progress.

The casual gaming market makes up one of the fastest growing sectors of the video-game industry. How do you think this will change the way video gaming is perceived by academics, industry leaders, and the general public?

IB: I'm not even sure we should talk about "casual gaming" anymore, to be honest. So much of gaming is casual gaming. Or at least, so much of gaming is not AAA or "hardcore" gaming. In my book, *How to Do Things with Video games*, I argue that the power of videogames as a medium comes from the fact that they are already being used for so many different purposes. When you think about it, that's what makes



a medium a mass medium—not that a lot of people use it, or not only that, anyway. But rather, that it can be used by a lot of people in so many different ways. Or looking at it the other way around, the way you get a lot of people to use something is to increase the possible touch-points for it, to raise the number of uses to which it can be put. So books, television, moving images—these media are mass media because we can do so many things with them.

Video games also do many things—they entertain us, of course, but they also function as art, as marketing, as exercise, as education, as a way to experience music, as a way to idle our time, as a thing that offers predictable behavior in an unpredictable world, and on and on. So it may be time to give up the idea of the “casual gaming market” as an alternative, as the flip-side of the “hardcore gaming market.” Instead, there is just a gaming market. Or maybe not even that: there are games, used in different ways, in different circumstances. That’s a tough pill to swallow, because it forces us to see games splinter, to become involved in all sorts of different areas and therefore to see their gameness play second fiddle to other goals. But we can’t have it both ways. The domesticated animal can be put to use, but it loses some of the magic of the wild.

Facebook has become a significant platform for casual games. So much so, that you designed *Cow Clicker* to parody the popularity of many Facebook games. Looking back, what are some of the things that surprised you about *Cow Clicker*’s popularity and legacy?

IB: *Cow Clicker* is so much bigger than me now, it’s not even possible to know what it really is. There’s an Internet adage, called “Poe’s Law,” that says that it’s often difficult or even impossible to tell the difference between extremism and its parody. It was originally coined in relation to discussions of evolution within Christian forums, but it’s been generalized since: A parody of something extreme can be mistaken for the real thing. And if a real thing sounds sufficiently extreme, it can be mistaken for parody.

Most of all, I’ve tried to ask myself what I can learn from *Cow Clicker*, or even what’s next for *Cow Clicker*. The latter question just terrifies me, because I’ve tried so hard to distance myself from the madness that running the game entailed. But it’s also short-sighted. After all, *Cow Clicker* was popular. It still is. People like clicking on cows, even after I raptured the cows into oblivion! What can I do with that observation,



what can I make that takes that lesson in a direction unburdened by the concerns of obsession and en-framing that motivated my critique of the genre? I suppose that’s the biggest surprise, that it would still be with me, still have something to reveal.

In your book *Newsgames: Journalism at Play*, you suggest that videogames could be used as a new model for journalism. Yet even a casual game with an incredibly fast production time may not be published until well after the public has lost interest in a story. How do you think games can become a new form of journalism when there is limited evidence that news consumers would care about a topic long enough for the game to come out?

IB: My friend Gonzalo Frasca devised the idea of “newsgames” back in 2003, when he made a game about the then-new US war in Iraq called *September 12*. He’d previously made a game called *Kabul Ka-boom* (immediately after September 11, 2001) although he hadn’t yet suggested the name “news-game” for it. Then in 2006-2007, my studio, Persuasive Games, made a series of games based on current events—first for Shockwave.com and later published on the NY Times. Those games were about topics like the then-new airport security liquid ban, food safety after E. coli outbreaks in spinach and tomato crops, and later the McCain-Kennedy Immigration Bill.

All of those games were keyed off current events, and so timing really mattered. We made some of them in a couple weeks, others in a couple days. But in *Newsgames*, writing with two of my doctoral students at Georgia Tech, we cast a wider net. Games like the ones just described we call “current event



Ian Bogost

games,” because they related to recent events, but even then we split that category in three: editorial games (opinion), tabloid games (sensationalism), and reportage (explanation). And we describe a number of other genres of newsgame too: infographic games, documentary games, literacy games, community games, puzzles, and platforms, for example.

Actually, the genre of puzzles is particularly interesting from a casual games perspective, because when you think about it, the first popular casual games were provided by newspapers in the form of the crossword puzzle. In the book we argue that the news business used to own what we now call the casual games business. They just didn't realize it,

You recently contributed to the book, *10 PRINT CHR\$(205.5+RND(1)); : GOTO 10*.

What did you specifically contribute to the project, and what are you hoping readers get out of this book?

IB: This book was very strange in a number of ways, not only because it is a 300+ page book about the one-line Commodore 64 BASIC program that is also its title, but also because ten authors collaborated to write the book in one voice. That is to say, it's not a collection of different chapters each by one individual. We used a wiki and other tools, met in person, wrote on Google Docs and using Skype to write parts of the book together, and then we handed those bits



and unknowingly ceded it, like they did classifieds to eBay and Craigslist.

So for me, newsgames is a very broad term, one that describes any intersection of games and journalism, not just small games made quickly to satisfy immediate interests. This is related to the idea I mentioned earlier of expanding the possible uses and applications of games—in this case, in the service of journalism.

around for further rewrites and expansions. So it truly is a book written by ten people together. We have some shorter chapters called “remarks,” and I did write one of those solo, the one about porting the program to the Atari 2600.

As for the book's aim, we wanted to show that a seemingly simple, one-line program for an outmoded computer had many secrets to give up, that it could be used as a lens to talk about a great many topics in the history of creative computing. The BASIC language, of course, and the C64 platform, but also the practice of writing one-liners, of sharing code in magazines and on BBS's, the difference between machine languages and high-level languages, the unique PETSCII character map on Commodore machines, and so forth. The program itself produces an endless maze-like pattern on the screen, so we also talked about the history of mazes, labyrinths, and patterns, as well as the practices of display hacks, the demo scene, and other cultural contexts in which small, weird programs are made for their own sake.

Software and hardware technology are changing and improving rapidly. What are some transformations you'd like to see videogames undergo?

IB: Changing, yes. Improving is a subjective matter. Certainly our living rooms and dens are becoming much more like cinemas than they once were, and the small, imprecise display of the television that led Marshall McLuhan to call it a “cool” medium (one that



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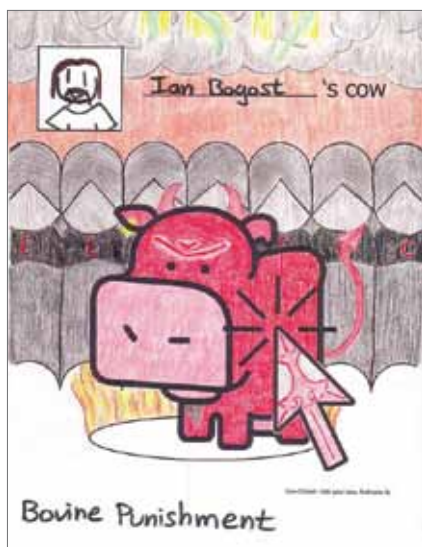
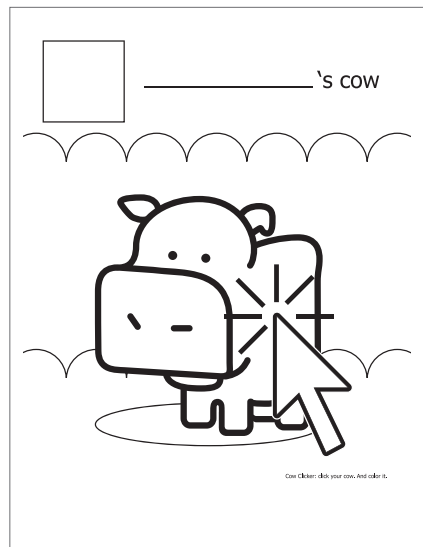
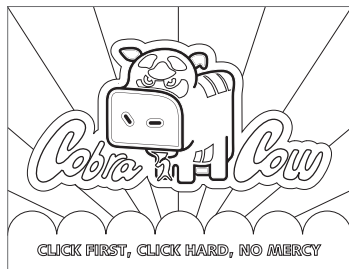
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Ian Bogost



requires us to fill in a lot of its blanks) has fallen away. But then again, now we have the small screens of mobile devices and the artifacting of compressed video and textures, so some of those features of television still persist even if in different form. The point is, the technological changes we perceive as progress are often just more of the same thing.

Anyway, when it comes to games technology, one interesting perspective to take is to ask what sorts of infrastructures we haven't developed, rather than assuming that we're always on the right



track, that the next best thing is just around the corner. In games, perhaps the most obvious potential transformations are the ones that don't occur to us because they would require thinking so far outside of ordinary convention. Real-world gameplay and augmented reality and the like offer one example, but those are material changes, and I think the past decade has witnessed plenty of material changes in the devices and interfaces we use to play computer games.

More interesting to me are the representational capacities that sneak under the radar. For example, we can simulate the visual appearance and physical behavior of virtual worlds quite effectively. In fact, these days we have entire software and even hardware subsystems devoted to graphical and physical simulation. But inside those worlds, the social and intellectual behavior of individuals and groups is still really rudimentary. If you imagine a "social engine" at the same level of representational affordance as a physics engine, you get some rough idea of what I'm talking about, vague though it may be. And one of the benefits of encapsulated systems is that we tend to see them used in a number of different ways, since they are componentized. So I'd like to see more of those sorts of procedural representational tools



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Ian Bogost



in games, no matter what particular aspect of the world they might model.

But another direction I'd like to see games move in is precisely the opposite one: a resistance to progress and a return to the hardware and software systems we've left behind, thinking we've mastered them. As someone who has written about and made games for the Atari 2600, for example, I find that platform to be rich and powerful despite its age (it's over 35 years old). Newer platforms have died or been killed before their time, and since they weren't commercially viable the community cast them aside as invalid. But why would a computer lose its artistic and creative powers just because it has been superseded by something new?

Finally, what are some games or research you are working on that people can look forward to?

IB: My most recent game was an iOS title and installation at the Museum of Contemporary Art Jacksonville, called *Simony*. It's a medieval church politics-themed game about earning your station among a

community, available on the App Store and in a giant, 12-foot-high installation in an atrium at the museum in Florida. It was interesting and challenging to work on a site-specific game that also had a downloadable component for general use.

Now that that project is behind me, I'm prototyping a few new games, but I'm not sure when I'll next dive into one in earnest. So I'm spending most of this year writing. I have a few book ideas I'm trying to sort out in my head and on paper. In addition to the usual fare of games criticism, one of my projects tries to extrapolate game design for more general creative purposes, another looks at the history and influence of Apple, and one takes up sports videogames specifically. I'm also working on some new research on small, cheap hardware platforms in the context of an Intel Science and Technology Center for Social Computing that we've got running at Georgia Tech. And I'm also starting up a Center for Media Studies at the Institute which will try to offer an expanded view of media studies that takes just about anything to be a medium, not just communication media like television and games. ❄



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The Grand Experiment

Could a Console Studio Learn to Make a Casual Game for Kids?

Up until a couple of years ago, we at Slant Six Games would have defined ourselves as a console studio. We were used to making large scale adult games such as *SOCOM* and *Resident Evil: Operation Raccoon City*, with production schedules of one-to-three years and teams of up to 150 employees. As the industry began to shift, however, we couldn't resist exploring the rapidly growing mobile market.

ture. What follows is a description of what we did in this "grand experiment" and some of the lessons we learned from it.

The Grand Experiment Begins

We had an internal, week-long brainstorming competition in which we split into small teams of six with the charge to quickly create game prototypes that could be playable on a tablet—and to "think outside the box." The elevator pitch for one game was:

A Pirate-themed digital board game for Apple and Android tablets and smart phones, as well as for the Amazon Kindle Fire. In this pass-and-play digital board game, up to four players find treasure chests on a globe and play interactive mini-games in order to get them. The objective is to get four chests and defeat the pirate king, and along the way players can also duel other players for their chests to get ahead or stay ahead. It is designed for children ages six-to-10, but suitable for families and the young at heart.

We had an internal, week-long brainstorming competition in which we split into small teams of six with the charge to quickly create game prototypes that could be playable on a tablet—and to "think outside the box."

We knew we had a great many things to learn. For instance, we knew that the majority of the apps made today are developed by small teams on short design cycles. When the opportunity arose, we decided to conduct an experiment with the following goals:

- Self-publish a game with original IP.
- Make a game with a very short timeline and a very small team.
- Make a game for Android and the Amazon Kindle Fire.
- Make a game designed for children.

The name of this experiment would eventually become *Max's Pirate Planet—A Board Game Adven-*

When the team prototyped it on the tablet, they added the extra twist of mapping the game board onto a globe/sphere. By the end of the week, the team had a playable prototype that was incredibly fun to play. This pirate game was the most logical vessel for the "grand experiment" because it was so far removed from our usual work of Navy Seals and Zombies that we could be as risky as we wanted.

During this experiment, we wanted to keep costs to a minimum in order to test the small team/short design cycles model other mobile developers use, so we set constraints to make the game in less than 16 weeks with an average headcount of eight people.

To get the most out of the low headcount, we chose a team that consisted of multi-disciplinary people: programmers who could draw, artists who could animate, artists who could code. Everyone had to be prepared and willing to wear many hats. This actually made the team more engaged because it gave people on the team the opportunity to apply skills they may have learned but rarely have the chance to use. For any specialty skills the team lacked and didn't need full-time (audio, visual FX, etc.), we'd

quite incorrect. So we added one more pre-production goal before going too far:

4. Try to understand how a child's mind works when playing a game!

To help us with that goal, we were incredibly fortunate to have a resource nearby. The brother of our Art Lead is a Professor of Child Psychology, specializing in children aged five through eight. He helped



by Kelly Richard Fennig;
Technical Producer,
Slant Six Games;
Vancouver, BC



Title screen for
Max's Pirate Planet

“contract” out to a revolving door of experts within Slant Six Games, people who would jump on the team for a week or two, do their magic, and then smoke-bomb out.

Moving on to Pre-production

We started pre-production in mid-November 2012. Our goal was to spend as much time in pre-production as possible. The goals we wanted to achieve before heading to production were:

1. Ensure the game was fun, easy to understand, and not too simple or difficult for children aged six and up. (If four- and five-year-olds could grasp it, even better)
2. Prototype out all the mini-games and play-test them thoroughly to ensure they were fun for our target market before investing too much time developing art.
3. Create some compelling and visually-appealing characters.

The initial pirate game prototype was quite complex and had a lot of strategy elements suitable for teens and older. We assumed kids could pick it up, but after watching children play some existing board games, we quickly learned that our assumptions of what was suitable and appealing to children were

steer us in the beginning of preproduction. He gave us lots of great advice, including:

- Get the game in the children's hands as soon and as often as possible.
- Carefully craft your questions because children want to give you the right answer.
- Watch the kids' body language for the answers. Don't rely on their words.

We realized that tweaking the existing prototype's rules was the wrong approach. It would take too much time and would likely result in a broken game that wasn't fun. Instead of using a top-down approach, we needed to go bottom up. We would draw inspiration from older “classic” board games, because they were fun to play and did not rely on “flashiness.” We would need to recognize when something was fun and, only then, add it to our game.

Add-Test-Revise-Repeat

We decided to take a big step back, go back to paper designs and tear the original game's rules down to their bare bones and concepts. Like an experiment, we would start reintroducing and adjusting the rules and game elements one at a time to make sure that our young audience would still find the game fun and playable. To save even more time, we would use other existing games whenever possible to test out



The office—coming to
work or coming to play?



It's a board game about pirates... on a globe

concepts first rather than spend time implementing our own prototypes.

First, we stripped our game down to the very basic elements: Pirates, move around globe, get treasure. This, by itself, was unquestionably quite boring, but in this state, we realized it was much like the game *Trouble*. We asked ourselves: *What makes such a simple game like Trouble fun for kids?* We decided that the fun didn't come from moving the pieces, but rather from pressing the bubble to get the number of spaces to move. So we investigated many different ways to "roll dice" on a tablet.

After some focus testing, we found that "spinning a wheel" was the most fun for kids. To them, it didn't require any skill; it was more like a toy that provided a heightened and prolonged sense of excitement and anticipation. Like pressing the bubble in *Trouble*, spinning for the number had to be a satisfying, interactive experience. It had to have great sound when in use. We had to allow them to play with it however they wanted. They could give it a short flick or spin it round and round before letting go. They could spin it clockwise or counter-clockwise. Just by adding a spinner with these properties, our simplistic game went from "boring" to "fun." We now had a strong core game foundation to build from, and we would continue to do this scientific approach of "add-test-revise-repeat" for the rest of the project.

Tackling the Mini-games

Likewise, we needed to ensure that each mini-game gave a satisfying and fun experience and could possibly stand on its own. We recognized that we were essentially making a game like *Mario Party* here, so we asked ourselves: *Why is Mario Party fun to play?* From an overall game experience, we found it was the balance between how frequently the mini-games occur, how often you play either as a single player and head-to-head, and how long it takes until your next turn.

At this same time, the fun of each mini-game depended on whether the game mechanic was fun and whether it was quick to play and complete. In the end, we identified a player-turn-loop for our game in which each player would:

1. Spin the spinner
2. Move her token
3. (Whenever possible) Play a mini-game
4. End turn

Since ours is a four-player, pass-and-play game, we wanted to keep each player engaged and back in the game for her next turn within two minutes, so we decided that the player-turn-loop should not take longer than 40 seconds to resolve. We wanted to ensure that spinning and moving was satisfying and not rushed, so this left us with 15 seconds for each mini-game. Lucky for us, we found from play-tests

that 15 seconds was the “sweet-spot” length for a mini-game.

One of the tenets of intelligent design is “form follows function.” We planned to craft each mini-game around different, fun mechanics. Our turn-loop relied on a mini-game each turn, so if a mini-game wasn’t fun to play, it didn’t matter how it looked—it would be tedious to encounter and the loop would be broken.

We found a couple apps that were essentially dozens of different micro-games (lasting less than five seconds), almost like a syllabus of possible tablet input mechanics. With our target kids and with adults, we tested these micro-games for ease of learning the mechanic (without any direction) and for overall fun. We were surprised to find that the results were consistent across both adults and children. We took the mechanics that were both easy to learn and consistently fun (even after multiple repetitions) and turned them into the following single-player mini-games in our game:

Tap and drag away multiple moving object

Tap on numerous random moving objects

Tap rapidly on multiple predictably moving objects

Tap and drag through a random maze

Tap and flick object at a moving target

Make a choice (pick 1 of x)

Tentacled sea monster game

Bat game

Spider game

Whale chase game

Final boss game

Pick a card game

For head-to-head games, since the development of a six-year-old is different than that of a nine-year-old, the only way to keep it unpredictable and fair was to have mini-games that relied on a bit of random luck and reaction time. From the apps we tested, the mechanics that offered the most fun and fairness became the following multiplayer mini-games:

Swipe in a direction first

Whack a mole

(tapping multiple random, time-limited targets)

Sword duel game

Cannon duel game

Each mini-game took about a day to prototype and, within two weeks, we had games for our play-testers to try out.

On to Character Design

With character design, our goal was to create original characters that resemble an after-school cartoon. We spent weeks conceptualizing the playable characters and regularly checked in with the children to see what stuck and what didn’t. Our final cast is the

amalgam of character designs from three different artists. Of the lessons we learned, two really stood out:

- Children don’t want to play “kid” games, but they would rather play as characters a year or two older than their own actual ages. Any older than that, and they couldn’t identify with them and shied away from them. Thus, most of the characters in our game are eight-ish to ten-ish.
- To our surprise, kids liked elements which suggested the characters were “dangerous” (such as fangs, scars, “mean eye-brows”). We tested this theory by slightly changing out some of the “dangerous” elements, and the characters were immediately less appealing to our test audience. What was even more surprising was that this was consistent regardless of gender. For example, we thought the skeleton character Skully would only be popular with boys, but he was a clear favorite with the majority of girls as well.



We had an internal, week-long brainstorming competition in which we split into small teams of six with the charge to quickly create game prototypes that could be playable on a tablet—and to “think outside the box.”

The “aspirational narrator character,” Max, was added late in pre-production. We needed someone to nudge the kids along when they didn’t know what to do or got distracted from the game. We learned that even though kids shied away from playing these older characters, they would look up to and follow the direction from these “big brother/big sister” characters better than if it came from a peer-aged

or an adult-aged character. Max couldn’t be a character they wanted to play, but had to be a character they trusted and wanted to listen to.

Production at Last

After seven weeks of pre-production, we started production on January 7, 2013 and ran to March 8, 2013. We weren’t used to such a short schedule, and it showed early on. The plan was to be agile and spend the first week getting the core game polished,

then iterate on one mini game each week for seven weeks, leaving the last week in reserve for polish.

Some of our early implementation didn't take the short schedule into account. We spent time on things that could have been simplified. For example we planned to:

- use 3D models in mini-games where 2D sprites would have been sufficient
- make a complex animation skeleton that would never be seen or appreciated on a tablet
- model a 3D level, when a matte painting background could have worked
- make dozens of frames of animation when less than 10 frames would have done

As for audio, we continued to keep costs very low. Because our games were time-limited, we had a fairly accurate per-second duration count to our soundtrack. We determined it was actually cheaper to outsource the musical score to a composer rather than to have it done in-house. We auditioned local actors, but in true indie fashion, the best vocal talent for the game was found in-house.

Addressing the Flaws

At week six we found that we had made a design flaw. Most board games usually follow a track/path. This keeps players moving forward towards clear goals and objectives. Our globe offers choice; however, if



Some of the mini-games

Before we knew it, the first week was gone and to us it didn't seem like we made much progress. It dawned on the team that we had to think like we were a startup company: Be wise with our time and resources and make practical and often clever design choices. As a team, we had reviews every three weeks with the senior staff (essentially playing the role of "publisher" to our "startup"), knowing that there was a real potential for this experiment to be cancelled at any point. So if we wanted to finish this game, it forced everyone to challenge the conventions we were used to following.

After that sobering first week, the team's perspective of what was required to make a fun game changed. Our mantra was: *"Focus on and follow fun, and the pretty production value will be whatever is left over."* We got into a rhythm. We found that from concept to final polish it took seven-and-a-half days to make a mini-game. We found that character development had a reliable and predictable pipeline of five days. This was good to know because if we ever needed to expand the scope of the game by adding more mini-games or additional characters, we could reliably plan and budget for it.

a player rolls a number where there is no clear goal in range, what should he do? We had a design goal that "the game should take less than 30 minutes to finish," and this flaw made our later play-tests go well past the desired 30-minute mark. In addition, some unlucky players became disengaged when they went a couple of turns in a row without playing a mini-game. Consequently, we had to make a few late design additions:

- *Make the "pick a card" tile a visible choice on the board:* The "pick-a-card" mini-game was initially a random occurrence, but it became a visible choice for players to go to. It was always within reach of whatever number they rolled.
- *Add a teleportation tile:* We gave players the option to go to where the action was (where there were more players or treasure) if their side of the globe was empty. It also allowed players to make a quick getaway if they know they were being pursued by an opponent. This tile was a visible choice and, like the pick-a-card tile, it was always within reach of whatever number they rolled.

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Evolution of a Pirate crew

- Add audible and visual cues to show any other goals within reach of their roll: We highlighted other players and treasure chests within range.

By constantly showing players their available options or goals, the game always gives them a choice to either play something this turn or go to a more distant goal. This adjustment turned out to be the game-changer we needed: Play-tests were completed within 30 minutes and player engagement and excitement improved noticeably.

For head-to-head games, since the development of a six-year-old is different than that of a nine-year-old, the only way to keep it unpredictable and fair was to have mini-games that relied on a bit of random luck and reaction time.

Adding the Final Touches

We decided there would always be four players in a game, which meant filling the non-human player slots with AI. Because of the size of the globe, when two or three players played alone, they wouldn't

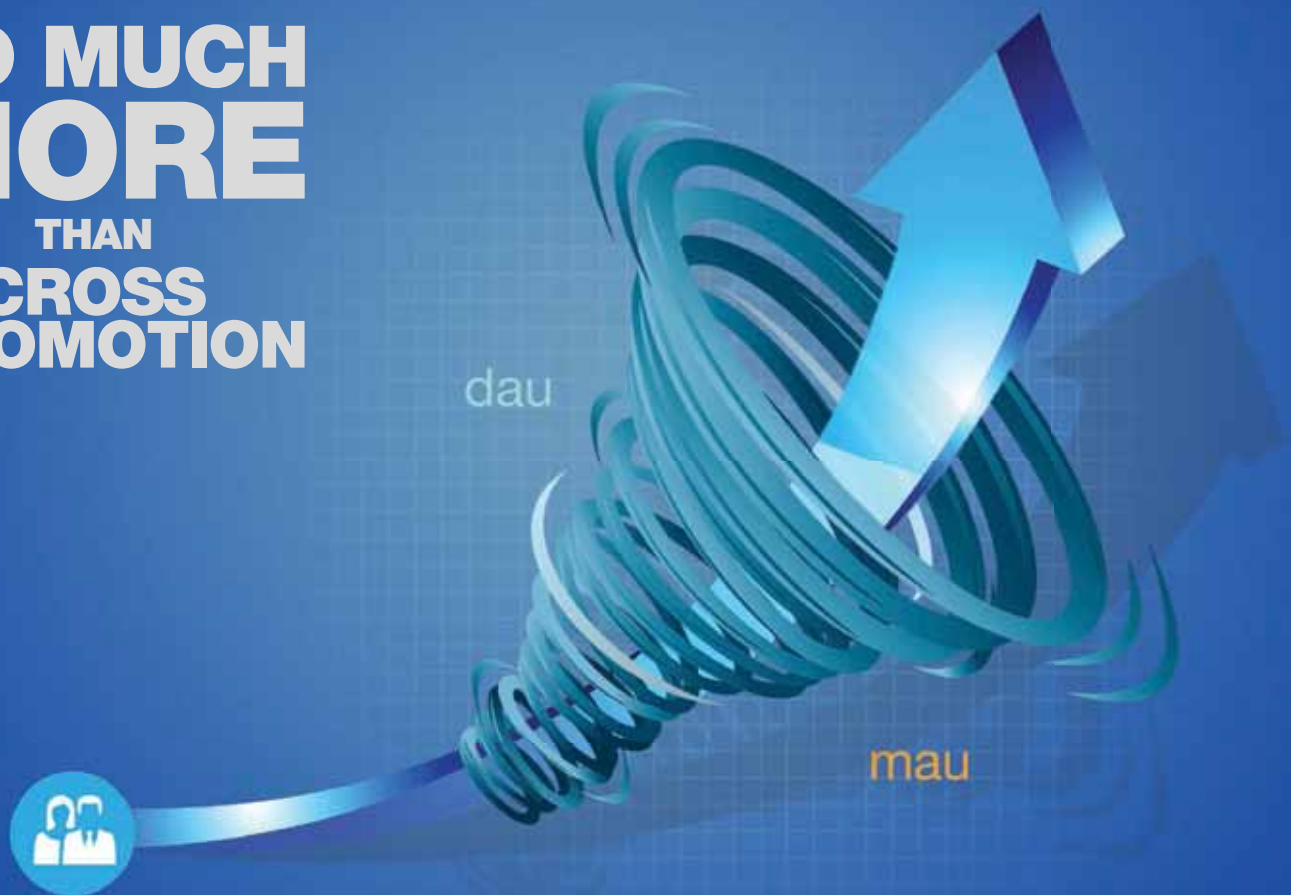
have many opportunities to play the dueling mini-games, and these are arguably the most enjoyable. By including AI, the AI players will try to win the game but will also seek out the human players just to provide another mini-game opportunity. Like our mini-games, the AI is adaptive to the player's progress and not their skill (i.e. an AI duel/mini-game for a player with three treasures will be significantly harder than for a player with 0). The difficulty is the same for all ages and skill. We opted against having a "child/adult" difficulty setting as it would mean yet one more button to press before starting the game.

The worst case scenario with AI is a single-player game, because normally the player may need to wait for up to two minutes for all the AIs to resolve their turns before getting back into the game. To address that, we sped up the AI turns so that time was cut in half. It was interesting to see the responses to AI. Most adults *assumed* kids would get bored waiting for the AI and suggested having a "skip" button; however, in reality, the kids were *fully* engaged watching the AI. In my opinion, the children appeared far more patient and undistracted playing the game, and it was the *parents* who became bored.

For the final "boss" mini-game, we took inspiration from the old board game *Mouse Trap*. Just because the player lands on the cheese, it doesn't mean the game is over, the trap still has to work. By design, the final boss mini-game is difficult to beat on the first attempt but becomes progressively easier after each attempt. The difficulty elements are shared between all players, so when it gets progressively easier, it is easier for everybody, and most players should be able to win that final mini-game after the fourth attempt. Some adults had the opinion that this difficult end game may be "potentially frustrating" to children, but again, from watching the children play, we discovered it was the opposite. To potentially have victory snatched from the jaws of defeat kept the kids excited and engaged.

In the end, it was a real treat for the team to see the reactions of the kids and parents (and "big kids"). For me, it brought back some nostalgia of when I was young playing board games with my parents: They would teach me the rules, and then I could teach my friends so we could play together. And even though the parents are 20+ years older than their children, they still had fun playing with their kids (and even found themselves challenged at times). One of my most favorite memories from the project was watching a pack of Cub Scouts play our game: Over twenty children were in a room and the energy could only be described as "exciting pandemonium." They were having so much fun, and this was the first time some of the team working on the game saw a play-test of this scale. At that moment, we knew this was something special we were working on. ✨

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The Major Arcana

How *Taptiles Saga* Took a Creative Approach to Character Design



When creating games, we often create

characters based on the different worlds and lands that exist within the game. Artists may be given a description of a land that is good for game-play, such as a “crystal cave” or “a floating city,” and designers will try and conjure characters that live in those lands. Designers may also provide descriptions of the characters that live in that world via certain key phrases. For example: *Druss is childlike with a sense of wonder; he refuses to listen to his elders and thirsts for adventure. Sarion is an evil, sadistic creature that loves to torment and capture small helpless creatures; he is twisted and full of spite.* From these key phrases we start to form an idea of what these characters might be like, how they look and how they fit into the game world.

For our new Facebook game *Taptiles Saga*, we followed these steps and created an ensemble cast of characters that players meet throughout their adventures. When we set out to create these characters, we wanted them to be easy to understand, and we sought a simple way to communicate their depth and relationships with minimal cut-scenes and dialogue. We felt that if we could get players to care about these characters—their hopes, dreams, struggles and secrets—then the players would feel more engaged in the game.

A Creative Alternative to Character Development

When we began creating these characters for *Taptiles Saga*, we first started matching them to the lands that they dwelled in—just as described above. It was going well, but it seemed complicated, and many questions arose:

“Why is this character bad? What does he want?”

“Why are they building this item? What’s their purpose? What happens when the player meets this character?”

Of course we had answers: *Character A is like this because Character B is like that.* But it was becoming complicated and seemed too hard for players to understand. It was even hard for us as a team to get on the same page. So we decided to do some research on characters and see if we could come up with a creative alternative to character development.

After doing some research into character design across a variety of industries, we decided to take a look at ensemble casts in the TV shows and movies that we particularly enjoyed. We wrote down all the characters from *LOST*, *Harry Potter*, *Star Wars* and my new favorite show, *Once Upon a Time* (which is, incidentally, created by two of the *LOST* writers). We listed all of the characters from each show, and tried to see if we could group them together. After failing a few times, we started searching the Internet and discovered the Major Arcana, and how their cards define archetypes. The Major Arcana is a suit of twenty-two cards in a Tarot deck. Once we looked at the character descriptions of the cards, and then looked at the characters in TV shows and films, we made the connection. You’ll find that there are lots of definitions for the Major Arcana. But we pulled together some different descriptions and came up with a list that we liked:



by Stephen Jarrett;
VP Game Design, and
William Bredbeck;
Lead Art Director;
Arkadium;
New York, NY

MAJOR ARCANA	LOST	STAR WARS	ONCE UPON A TIME	HARRY POTTER
The Magician	Jack Shephard	Luke	Emma Swan	Harry Potter
The Fool	Hurley	C-3P/R2-D2	Seven Dwarfs	Ron Weasley
The High Priestess	Kate Austen	Leia	Snow White	Hermione Granger
The Emperor	Sawyer	Solo	Pinocchio/Sheriff	Sirius Black
The Hierophant	Richard Alpert	Yoda	Henry Mills	Dumbledore
The Lovers	Sun And Jin Kwon	Leia And Han	Snow And Charming	Ron And Hermione
The Chariot	Sayid	Chewbacca	Red Riding Hood	Hagrid
The Hermit	Danielle Rousseau	Obi Wan	Mad Hatter	Mad-Eye Moody
Wheel of Fortune	Charlie Pace	Millennium Falcon	Jiminy Cricket	Hedwig
The Devil	The Island	The Emperor	Rumplestiltskin/ Wicked Queen	Snape/Draco Malfoy
Book of Shadows	Ben Linus/Locke	Darth Vader	Wicked Queen/ Rumplestiltskin	Voldemort

The Magician

Learns to recognize strengths, has a strong goal, will let nothing stand in his way, doubts his abilities

The Fool

The comic relief, the happy wanderer, the child

The High Priestess

The keeper of spiritual secrets, which she shares only with those who are worthy

The Emperor

The protector who brings order out of chaos

The Hierophant

The symbol or influence, the head of an order, culture/religion and faith

The Lovers

The romantic interest; must overcome challenges to be united

The Chariot

Communicates through emotions; very spiritual and earthly.

The Hermit

A recluse who reflects on spiritual concerns and carries light of wisdom for others to follow

The Wheel of Fortune

The spinning wheel of destiny and fate; nothing is certain

The Devil

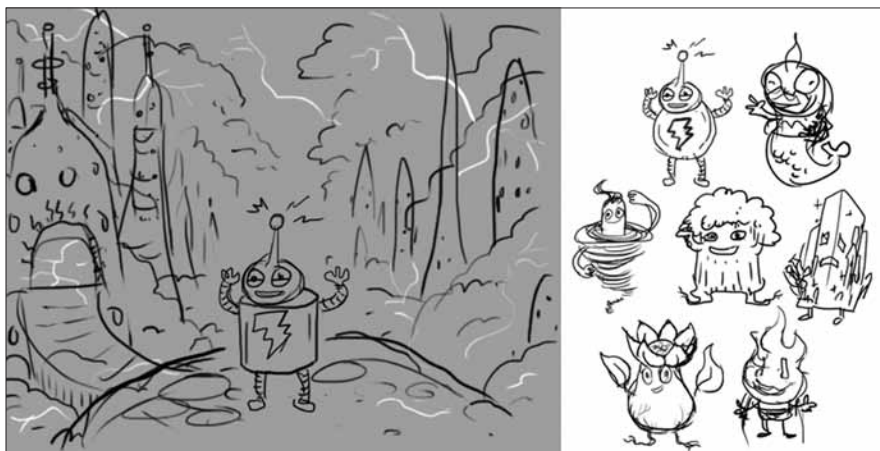
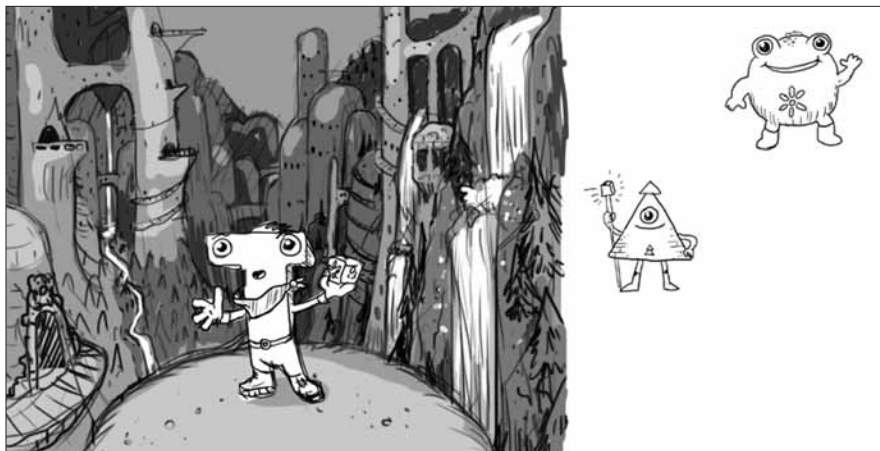
The dark side of existence, a trickster

Book of Shadows

Carries out the devils wishes, is conflicted

Once we familiarized ourselves with these archetypes, everything fell into place. We began to see our favorite television and movie characters in a whole new light.





For a game that has limited cut scenes and ways to tell a story, we were very interested to see whether matching our characters to these archetypes would lead players to accept and care about them

This technique proved to work really well. Once the characters and archetypes were sorted, we then started looking at images of each of these characters and noticed even more similarities. For example:

The fool is a character that always supports the hero, but typically there is something physically different about them:

- Ron is clumsy and has striking red hair
- C3PO and R2D2 are droids
- The seven dwarfs are small
- Hurley is large

The Chariot characters communicate mainly via their emotions. They are emotional characters who are all unkempt, earthly and very physical:

- Sayid from *Lost* has a straggly ponytail and beard, and he wears a lot of brown
- Hagrid is strong and has scraggly hair
- Chewbacca is strong, tall and hairy
- Red Riding Hood has scraggly brown hair and turns into a big strong wolf.

And so on. To us this was gold. We started to believe that the reason that we love these characters and accept them so easily is that they are easy to convey to an audience. Without realizing it, just by looking at these characters we understand them and know what their role is in the story. For a game that

has limited cut scenes and ways to tell a story, we were very interested to see whether matching our characters to these archetypes would lead players to accept and care about them.

Archetype Relationships

Another great thing about using these archetypes is how they all support the hero/magician in the same way. For example: The High Priestess always carries a large burden and only trusts those that seem worthy to her. Princess Leia's burden is that she is young and in charge of the rebellion. She doesn't at first trust Luke or Han Solo, but when they prove worthy to her, she opens up. Hermione's burden is that she is a muggle (a muggle that can do magic). She is also super smart and only opens up to Harry and Ron once they prove their friendship and quest for knowledge.

The Wheel of Fortune is always unpredictable. You never know if the Millennium Falcon is going to break down, but it always comes through in the end. You never know if Charlie from *LOST* is going to go back to heroin or fail at his task, but in the end he saves everyone. Hedwig always brings Harry surprise gifts just when he needs them.

So when we embarked on creating our characters for *Taptiles Saga*, we matched each of our characters with an appropriate archetype, and then adapted the characters to fit that specified archetype. The Magician in the Major Arcana is determined, needs to learn secrets, and has a goal. This description fit perfectly for the game player in our case. Just like Harry Potter, Luke Skywalker, Jack Shephard and Emma Swan, we needed to make sure that *our* Magicians (the players) had a chance to learn, recognize their strengths, and complete their goals as they set out on their journeys through a strange world. Once we began thinking of our players as Magicians, all of the characters they need to meet in the game fell into place. We also saw with much more clarity what the Magicians' goals should be and what they need to achieve over the course of the game.

If a character is the Hermit, then when we first meet him he needs to have something magical for the player to discover and some knowledge to deepen the world. Rousseau in *LOST* was the first to know about the magic and mystery of the island. Obi Wan had a lightsaber and knew about the Force. So in our story, when the player meets our Hermit—Rowena, the Ice Guardian—she carries with her a magical looking glass that she gives to the player. When the player uses the looking glass, she is able to see what turned the antagonist into the Book of Shadows, and how she can be saved.

We did this exercise for each character, and after only one hour we had a stronger world with stronger characters than we had after days of design meet-

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ings. Everything naturally fell into place as we worked our way through each of the characters. When you play the game, you meet characters like Maya the High Priestess, Morrigan the Book of Shadows, Talus



We did this exercise for each character, and after only one hour we had a stronger world with stronger characters than we had after days of design meetings.

our Wheel of Fortune, and Sirocco our Emperor. You then see how Sirocco became Lovers with Aurora, and why their love carries a burden—just like Han & Leia, Jack & Kate and Snow White & Prince Charming. As the story unfolds throughout the game, you're introduced to more characters that all fit together in the Major Arcana. And just as Chewbacca belongs uniquely to the world of *Star Wars*, our characters could only exist in our world.

Beginnings

These are some early character concepts for Guardians. Originally we didn't know much of anything about the story. We didn't know what world the game took place in or who lived in that world. About all we knew was that we wanted them to be something that you would feel strongly about wanting to save and that they lived in a magical world—so we explored characters who were somewhat animal, elemental or abstract.

As we worked on the characters we slowly pieced together the world we were making in our minds. A culture of the characters and the philosophy behind their creation emerged. It is a magical world inhabited by magical guardian creatures and a more human-like general population. Some of the Guardians are mixtures of different animals, some of them are pure fantasy elementals based on their environments.

At this point we delved into a system of defining the personalities of the characters. This was when we decided to take a lot of cues from the Major Arcana of the Tarot deck to define different personality archetypes, a decision which gave us a foundation to start building the specific characters. After we utilized the Major Arcana to help us define these characters and their storyline, we began our process of making the characters come to life.



Reed

When we set out to create our first character, Reed, we began working with the excellent Brazilian character design team, 2 Minds Studio. For their first test,

they did a version of Reed the water guardian.

It was pretty much perfect and exactly what we were looking for, so we decided to move forward and work with them on the rest of the characters.



Thicket and Maya

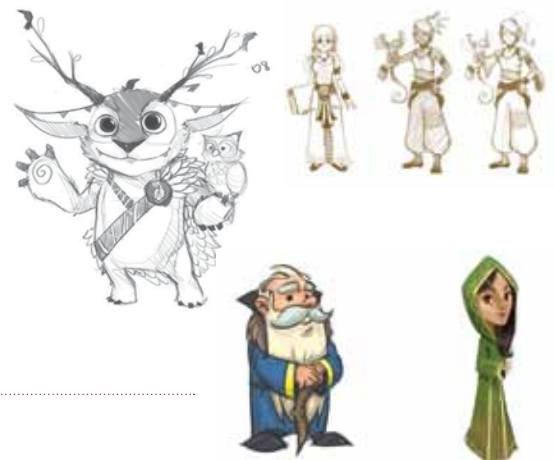
The Forest—with Thicket as its guardian—is the first realm you encounter. By the time we started working on him we had a general idea of what his character was

to be. We wanted him to be the Fool—a character that would provide occasional comic relief.

We played around with the idea of different scale. But we eventually decided on this guy.

The High Priestess presented different problems. The character was a helper and would always be present, so it couldn't be annoying and it had to be trustworthy. We didn't know if the character should be a human or an animal, or some fantasy magic creature. We made a spectrum of characters from human to animal and tested them. People consistently chose the human character as someone who would be more trustworthy for the High Priestess. They also seemed to gravitate toward older, wiser female characters for helpers. We eventually decided to go with a younger version though; we wanted it to be somebody that you wanted to hang out with, that you could identify with—someone athletic and adventurous—so we came up with Maya, and she became our High Priestess.

During this evolution we developed this small character that sat on Maya's arm. Everyone absolutely fell in love with it, and we decided that this should be Thicket, the Forest guardian, and we scrapped the direction we had gone before.





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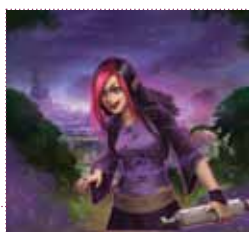
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Gleda

Gleda is the third guardian that you meet. We decided that she should be derived from the Sun tarot card, which represents an optimist, a dreamer, with assurance and vitality. Once

we had this description, her role in our story fell into place and she became a quick character to concept and design. She is a bubbly, optimistic air guardian who lives in the mountains.



Morrigan

Morrigan was the most difficult character to come up with. We didn't have enough of the story finalized when we began trying to figure out who she was. Originally the character

was a male guardian gone bad, a guardian called "Stormy" because he was a storm guardian who created purple storms that were spreading across the world.

These felt much too evil, and didn't represent what we were trying to get across.



We tried making him cuter with a mischievous side. Still, nothing felt quite right and we couldn't get the whole team behind any of these characters.

Around this time we decided to switch direction and reexamine the story as we had it here. We came up with the idea of using a female character instead: Morrigan, Maya's sister. We started playing around with ideas of making her a goth version of Maya.

As soon as we saw the character, we knew it was right. After we had finalized the character of Moorigan, our storyline of characters for *Taptiles Saga* was complete.



The Success of Alternative Methods

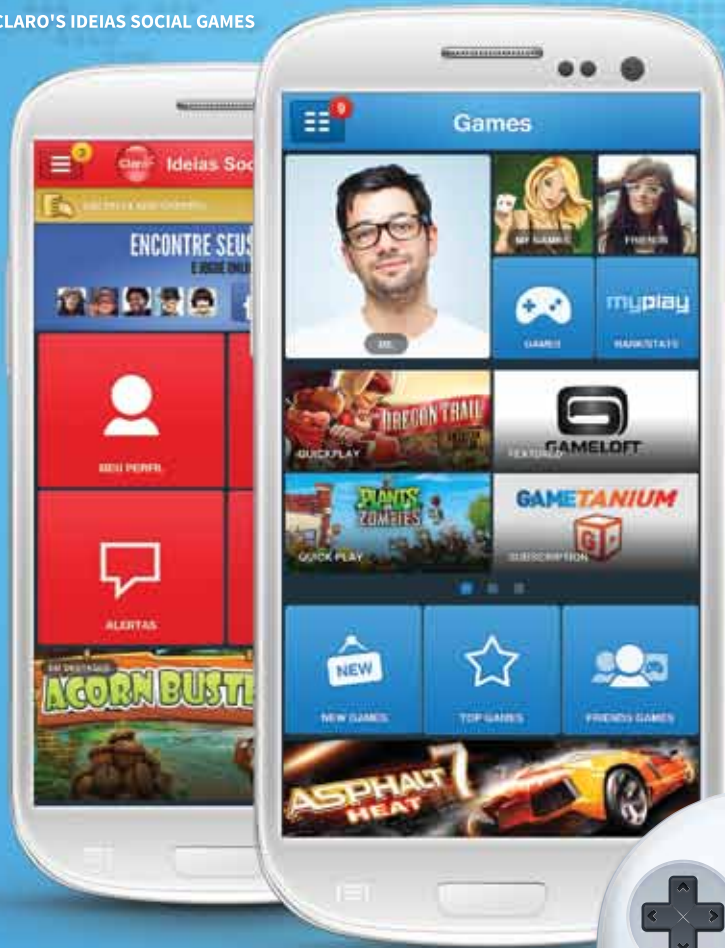
Using the Major Arcana really helped us find a purpose for each character in our world, and it helped us determine how they would affect players throughout their journeys. By following these archetypes, we've found that we are able to get a player to connect with these characters faster, without having to explain their motives over lengthy dialogue. It was also incredible to see how well these characters fit together and how their relationships started to write themselves, resulting in a compelling and exciting story. This creative experiment turned out to work really well for us—it made us feel a strong connection with our characters and hopefully, our players will too!

This whole experience taught our team that sometimes the answer might not lie in front us, and by thinking outside of the box and looking at other character-driven industries, you might just stumble upon your secret ingredient to success! ✨

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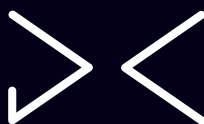
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by Roberto Dillon;
Chief Game Designer,
Kentaura;
Singapore

Understanding How Games Work

The AGE and 6-11 Frameworks

figure 1: The AGE Framework



A very challenging aspect of game design is finding a reliable methodology for analyzing why a specific game works well and how all its different parts fit together to build a coherent whole.

One of the first attempts in this direction was the well-known MDA (Mechanics, Dynamics, Aesthetics) framework introduced in a seminal paper by Marc Leblanc, Robin Hunicke and Robert Zubek. Indeed, their work also served as an inspiration for other models, including the one discussed here: the AGE Framework, which is based on the concepts of Actions, Game-play and Experience. These are defined as follows:

- **ACTIONS:** the core, atomic actions that a player can perform in a game, usually described in terms of verbs. Examples are moving, jumping, kicking a ball, punching, shooting, taking cover, shifting tiles, etc.
- **GAME-PLAY:** the resulting play that players achieve by using and combining the available "actions." These can be described either in term of verbs or higher level concepts, for example: fighting, race to an end, territorial acquisition, etc.
- **EXPERIENCE:** the emotional experience that engages players during the game.

As shown in *figure 1*, we can use these concepts for describing a high-level representation of a game where we link the Actions to the Game-play by observing that players use the former according to specific rules to ultimately overcome different challenges and goals. Goals, in turn, serve to link the Game-play to the Experience by providing players with a reason to immerse themselves in the gaming world and then get emotionally engaged in what they are doing.

6-11 FRAMEWORK

THE 6 EMOTIONS

FEAR: One of the most common emotions in games nowadays. Thanks to the newest technologies, it is now possible to represent realistic environments and situations where fear can easily be triggered. Think of all the recent survival horror games or dungeon explorations in RPG games for plenty of examples.

ANGER: A powerful emotion that is often used as a motivational factor to play again or to advance in the story to correct any wrongs that some evil character has committed.

JOY/HAPPINESS: Arguably, one of the most relevant emotions for having a fun gaming experience. Usually this is a consequence of the player succeeding in some task and being rewarded by means of power-ups, story advancements and so on.

PRIDE: Rewarding players and making them feel good for their achievements is an important motivational factor for pushing them to improve further and advance in the game to face even more difficult challenges.

SADNESS: Despite being an emotion that doesn't seem to match with the concept of "fun," game designers have always been attracted to it as a way to reach new artistic heights and touch more complex and mature themes.

EXCITEMENT: Most games worth playing should achieve this as a natural consequence of successfully triggering other emotions and/or instincts.

THE 11 INSTINCTS

SURVIVAL (FIGHT OR FLIGHT): The most fundamental and primordial of all instincts, triggered when we, like any other living being, are faced with a life threat. According to the situation, we will have to decide whether we should face the threat and fight for our life or try to avoid it by finding a possible way of escaping. This is widely used in many modern videogames, especially FPS and survival horror games.

SELF-IDENTIFICATION: People tend to admire successful individuals or smart fictional characters and naturally start to imagine being like their models.

COLLECTING: A very strong instinct that motivates players to form patterns of objects by completing sets with a common theme. It also relates to our hunting instinct and has been widely used in games since the early days of the medium.

GREED: Often we are prone to go beyond a simple "collection" and start to amass much more than actually needed—just for the sake of it. Whether we are talking about real valuable items or just multiple sets of goods and resources we need to build our virtual empire in a strategy game, a greedy instinct is likely to surface very early in many players' gaming habits.

PROTECTION/CARE/NURTURE: Arguably the "best" instinct of all—the one that pushes parents to love their children and every person to feel the impulse for caring and helping those in need.

AGGRESSIVENESS: The other side of the coin, usually leading to violence when coupled with *greed* or *anger*. It is exploited in countless games.

REVENGE: Another powerful instinct that can act as a motivational force and is often used in games to advance the storyline or justify why we need to annihilate some alien or enemy.

COMPETITION: Deeply linked with the social aspects of our psyche and one of most important instincts in relation to gaming: leader boards. Without it, games would lose much of their appeal.

COMMUNICATION: The need for expressing ideas, thoughts, or just gossip, was one of the most influential for human evolution. It can be used to great effect in games too, while seeking information by talking to a non-playing character (NPC) or while sharing experiences with other players in chat rooms and forums.

EXPLORATION / CURIOSITY: All human discoveries, whether of a scientific or geographical nature, have been made thanks to these instincts that always pushed us towards the unknown.

COLOR APPRECIATION: Scenes and environments full of vibrant colors naturally attract us, whether it is an abstract or a photorealistic setting. Note, though, that this is not necessarily linked to technological prowess; rather it is more about the artistic use of colors to make graphics attractive, regardless of the actual number of pixels.

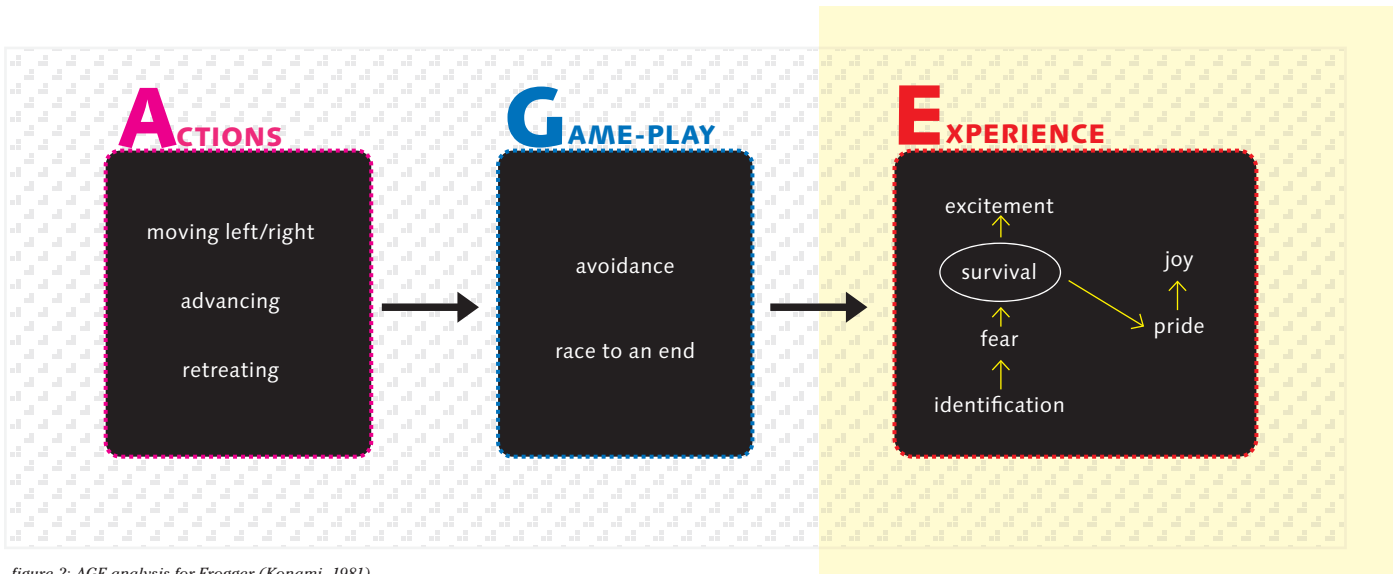


figure 2: AGE analysis for Frogger (Konami, 1981)

Overall, the main idea behind the 6-11 Framework is that these emotions and instincts interact with each other to build a network or sequence that should, in general, end with "Joy" and/or "Excitement" to provide players with a meaningful and fun experience.

The 6-11 Framework

Now, while describing Actions and Game-play can be relatively straightforward, how can we effectively describe the emotional Experience of players in a way suitable for relating it to the game-play? To answer this question, the AGE Framework adopts the "6-11 Framework", a model suggesting that games can be so engaging at a subconscious level because they successfully rely on a subset of basic emotions and instincts, as defined in psychology, which are common and deeply rooted in all of us. In particular, the six emotions are:

Overall, the main idea behind the 6-11 Framework is that these emotions and instincts interact with each other to build a network or sequence that should, in general, end with "Joy" and/or "Excitement" to provide players with a meaningful and fun experience.

A Step-by-Step Analysis: Bottom-up

To understand how this theoretical framework can help us in practice to figure out how a successful game builds an engaging and enjoyable experience, let's take the classic arcade game *Frogger* (Konami, 1981) as a simple case study. In *Frogger* players control a small frog that they have to bring to safety by crossing a highway or river through heavy traffic.

We begin our analysis by focusing on the Actions first and then moving towards the Experience. So, what are the Actions here? Let's start playing the game and ask ourselves: "What can I do in the game?" An easy answer is simply to check out the actions mapped on the game controls. In this case we have only a joystick that allows us to move left, right, forward or backward.

Next step is to move to the Game-play. Now we should ask ourselves something like: "What are the game rules allowing us to do?" or, more simply, "What are we actually doing in the game? What are we using the Actions for?"

In the case of *Frogger*, we are trying to avoid the speeding cars and reach a safe haven at the top of the screen. In game design terms, we can say the game-play is about "avoidance" and "race to an end." In doing so, we have also explicated the goal of the game. We are then ready to analyze the emotional Experience this leads us to, asking ourselves: "How do I feel while playing the game?" This is the most subjective part of the analysis and can obviously be quite tricky, but we can rely on the "6-11 Framework" to guide us in the process.

Most likely, we would point out that, while playing the game, we were "excited" by the fast action of moving across the highway and river and then

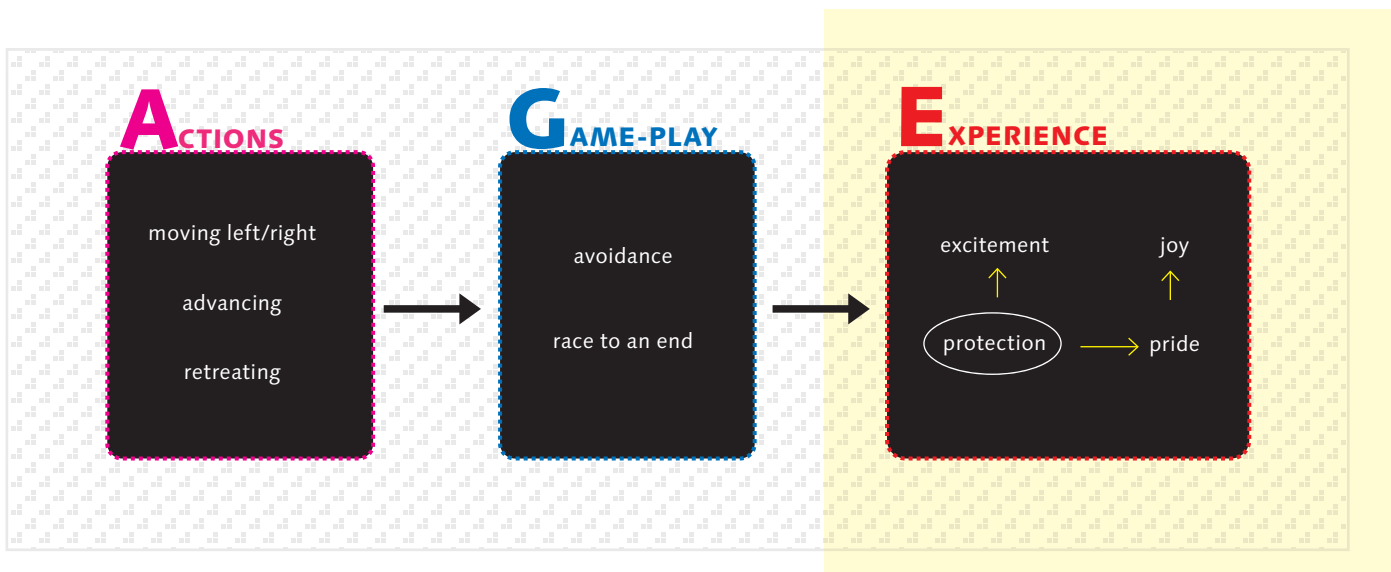


figure 3: Alternative AGE analysis for Frogger.

Breaking a game into clearly separated levels of abstractions that can be easily related to each other is not only helpful to analyze games and understand how they engage players, but it can also help in planning and conceptualizing new ones.

“happy” that we successfully reached the end. Notice that we have already identified the two main emotions that make Frogger fun and enjoyable, but why were we happy? Because we felt “proud” of our achievement. Right! “Pride” plays an important role here and, in fact, it usually resolves into Joy and Happiness. Now, what was the achievement we are proud of? Surviving the perils we had to face across the road and river! So, “Survival” is the main instinct at play here and it actually drives us towards the goal of the game. We may also realize that actually, looking at the cars approaching us from all directions, we might have felt a bit scared, and that we have unconsciously taken the role of the frog—we identified with it.

The whole analysis can then be summarized into a simple diagram like the one in *figure 2* on the previous page.

Of course, Experience varies from player to player, so some players may see things a bit differently. For example, rather than taking the role of the frog, players might think their role is to “help” the unlucky frog to safely reach the pond. In this case, “Identification”, “Fear” and “Survival” wouldn’t play any role in their emotional experience; these would be substituted with “Protection” instead. Here the frog is not an avatar, but it simply acts as a character the player has to save/rescue.

Under this assumption, the resulting AGE analysis would look something like *figure 3*.

Using the AGE Framework for Game Design

Breaking a game into clearly separated levels of abstractions that can, nonetheless, be easily related to each other, is not only helpful to analyze games and understand how they engage players, but it can also help in planning and conceptualizing new ones.

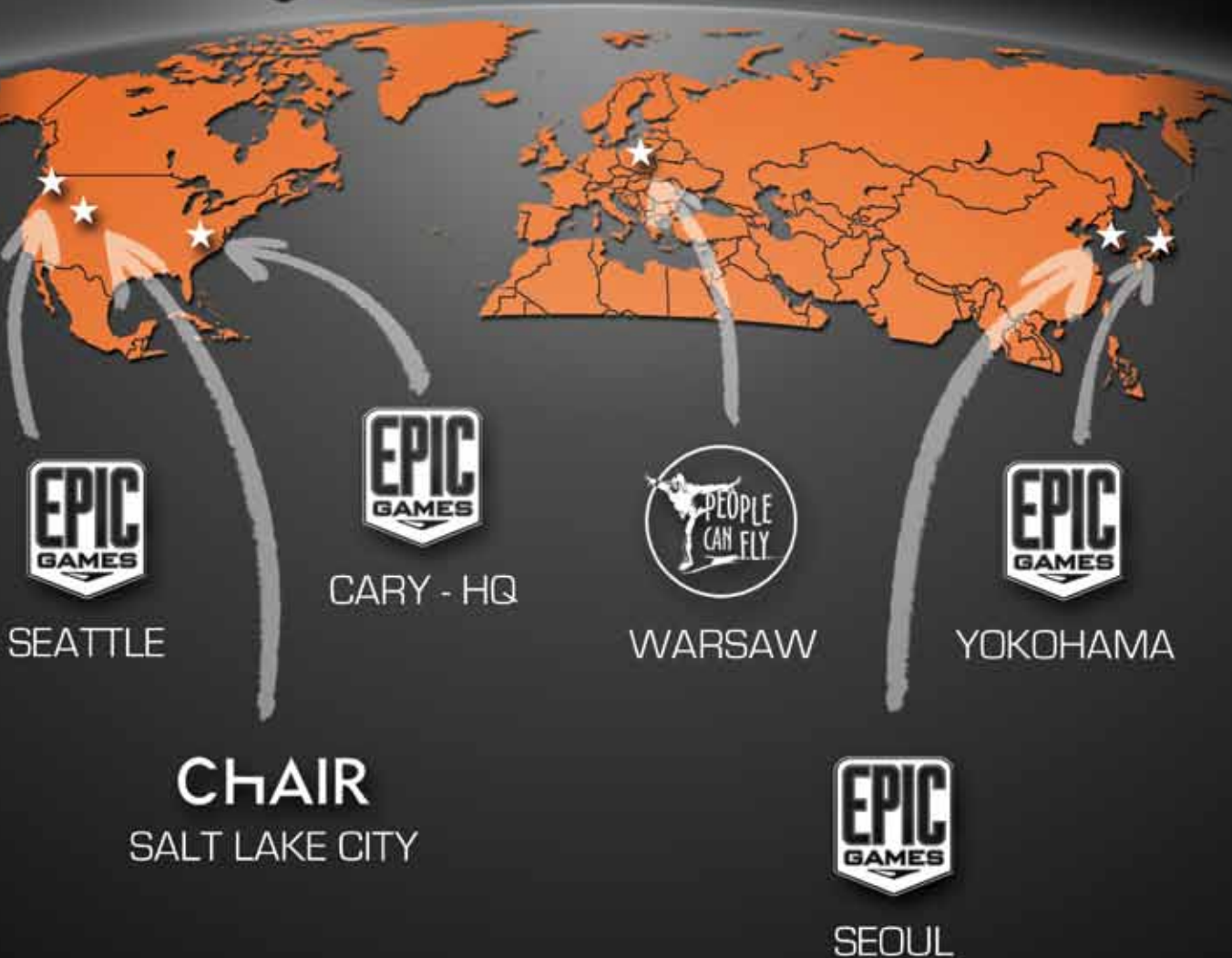
We may start by working on any specific layer first and then expand to the others. For example, we can start from a set of actions, like running and jumping, and then build rules around them to draft the game-play, set challenges and goals and analyze whether the resulting emotional experience can actually develop into something coherent and engaging.

Alternatively, we may be more inclined to start by defining the type of game-play first. For example, we might develop a race-to-an-end platform game with plenty of hidden areas to explore and then create goals, rules and actions accordingly. Or we might even start by drafting a desired experience, planning how to motivate players by using specific emotions, and then drive the game-play by relying on relevant instincts that can resonate with the different goals and challenges the game is setting up.

In the end, it is not really important in which specific conceptual level we start, but it is fundamental to be aware of the overall picture and know how to link the different layers by crafting appropriate rules and challenges to create a cohesive unit. This should be made evident by an AGE representation of the game that flows naturally, as in the *Frogger* case study, showing the game has potential to create an enjoyable experience that can seamlessly attract lots of players. ✨



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How Execution Labs Is Helping New Developers Succeed

As the hardware and software needed to create high quality videogames have become cheaper and abundant, more people want to make a career in the gaming industry. Unfortunately, many independent creators, talented though they may be, fail to understand the ins and outs of the business dynamics they will encounter.

developers exist. Recently, I spoke to Della Rocca about the founding and purpose of Execution Labs.

Getting Started

Della Rocca first got involved in the overall gaming industry by working on tech, graphics, and other middle-



First five success stories...

One entity hoping to guide developers toward becoming entrepreneurs is Execution Labs. Co-founded by Jason Della Rocca, Alex Normand, and Keith Katz, Execution Labs helps independent game de-

ware services with companies like Matrox, Silicon Graphics, and Quazal. Looking back at this time, Della Rocca mentions that his “roles were always developer-facing, working with devs to implement new tech or optimize game code for specific chips.” Even after he went on to lead the International Game Developers Association (IGDA), his early experience allowed him to have a career dedicated to “supporting and serving game developers in one form or another.”

Della Rocca would serve the IGDA as the executive director for nearly nine years. During this time he not only continued to consult new developers, but he was able to gain a greater understanding of international game development and its related global communities as well. When asked about his thoughts on game developers across the globe, Della Rocca says, “Paradoxically, you notice how different we all are, while at the same time you see how similar we are. Games are culture, and thus it is impossible to create games without some trace of cultural distinctiveness. However, a game programmer from Sao Paulo is not that dissimilar to one from Kuala Lumpur. That said, each country does have peculiarities that define their ecosystem, from talent pipelines to distribution networks, access to funding, government incentives, etc.” Della Rocca

“The incubation phase is when you go from an initial game concept all the way to a releasable game. Then the acceleration phase is about taking that game to market and building traction.”

velopers bring ideas to the market. In exchange for an equity stake and a share of a game’s revenue, Execution Labs helps a developer incubate an idea by providing mentorship, industry connections, funding for team members, tech support, and a minimum of \$10,000 for marketing. With years of experience to draw upon, Execution Labs highlights how, while the gaming industry is becoming more decentralized, both new problems and opportunities for



Execution Labs
Montreal, QB

now brings that insight to Execution Labs as he helps prepare indie developers for a global market.

The Founding of Execution Labs

Founded in late 2012, Execution Labs is, according to press releases, “a first-of-its kind, hybrid game incubator and go-to-market accelerator that helps independent game developers produce games and bring them to market. The company’s goal is to enable experienced developers to become true entrepreneurs and pursue their dreams of creative independence.” Della Rocca describes the roles of “incubator” and “accelerator” as being two important phases in helping an indie game developer succeed in the market. As Della Rocca says, “the incubation phase is when you go from an initial game concept all the way to a releasable game. Then the acceleration phase is about taking that game to market and building traction. This means gaining users, generating revenue, submitting content updates, running live ops, and simply learning to run your game as a service.” This two-phase support is what allows Execution Labs to uniquely help new developers.

Della Rocca feels that the company’s location in Montreal is ideal for a game incubator and indie developers in general. After all, as a home for studios belonging to Ubisoft, EA, Gameloft, WB and several other companies, Della Rocca observes that “Montreal—and Canada more broadly—has a rich combination of ingredients that create a vibrant ecosystem. There is a ton of experienced talent, and many great schools that are pumping out job-ready graduates. Also critical are strong grassroots community efforts to keep everyone connected and sharing, and meaningful government incentives.” Additionally, Della Rocca acknowledges that “Montreal in particular has a long history of visual simulation—some of the earliest CGI tools were created in Montreal—as well as a certain creative spirit (think Cirque du Soleil). This all contributes to a great context for game creation.”

Though Montreal is an important location for game development, it has been challenging for indies to get a foothold there. As Della Rocca points out, “For all the success and awesomeness in Canada, the ability to start a new studio and create original IP is non-trivial. Over 80% of the workforce is employed by large publisher-owned production studios. And much of the talent simply cycles between jobs at the various large studios.” Consequently, “we actually do not see many devs splintering off and strik-



... 1 Double Stallion



“Given the state of disruption and constant change the game industry experiences, efforts to explore the boundaries and experiment with possible new paths to success fall in the hands of independent studios.” “Given the state of disruption and constant change the game industry experiences, efforts to explore the boundaries and experiment with possible new paths to success fall in the hands of independent studios.”

ing out on their own. To be clear, there are start-ups—just not at the rate we'd like to see.”

These observations play into a larger concern that there is little effort in the gaming industry to develop new types of game-play. As Della Rocca says,

industry, but many of these still encounter the same business problems as their early forbearers. “While there is no shortage of creative talent,” says Della Rocca, “many fall flat when it comes to elements like marketing, monetization, finance, PR” and other aspects of running a business. From his years of experience, Della Rocca knows that “there are important tax, legal, and corporate considerations to take care of that, if not done right, can cause havoc in the future.” While there are government incentives for game developers, “daunting application forms often sit untouched by coders or designers who are also serving as company president.” Clearly, a little help could go a long way.

Execution Labs strives to help independent developers learn not only how to create unique intellectual properties, but also how to navigate the labyrinth of management and bureaucracies needed to succeed as a business. Thus indie developers learn both how to function as a business and how to reach a larger audience by cross-promoting and marketing intelligently. To help indie developers more broadly, Execution Labs encourages devs to use Lab Partners, a free, web-based service that the company provides to help developers make connections so that they can support and cross-promote one another's products. Says Della Rocca, “Many indies know that cross-promotion is a great way to acquire players, but they just don't know how to get in touch with similar devs who want to do the same thing.”

IMAGINARY
GAMES



... 2 *Imaginary Games*

“Given the state of disruption and constant change the game industry experiences, efforts to explore the boundaries and experiment with possible new paths to success fall in the hands of independent studios. It is an extremely important role. If it doesn't happen on a grander scale, stagnation will creep in.”

... 3 *Lightning Rod Games*



In other words, the gaming industry needs indie developers to push gaming genres in new directions because larger companies are typically reluctant to do so—which is why Execution Labs is so committed to helping visionary, entrepreneurial developers learn how to survive as a business.

What Execution Labs Offers Indie Developers

Indie game developers have been around for as long as there has been a gaming

“Games are culture, and thus it is impossible to create games without some trace of cultural distinctiveness. However, a game programmer from Sao Paulo is not that dissimilar to one from Kuala Lumpur.”

Success Stories—Developers in the Making

The first cohort of indie developers entered Execution Lab's program in January of 2013. Though these

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PUBLISHER	RANK CHANGE vs APRIL -2013	HEADQUARTERS
1. Rovio	-	Finland
2. Electronic Arts	-	United States
3. King	▲ 2	United Kingdom
4. Imangi Studios	▼ 1	United States
5. ZeptoLab	▲ 6	United Kingdom
6. Halfbrick Studios	-	Australia
7. Gameloft	▲ 3	France
8. Pie Labs	▲ 1000+	Russia
9. Kiloo	-	Denmark
10. Fingersoft	▼ 3	Finland

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4. King	▼ 1	United Kingdom
5. Zynga	▲ 10	United States
6. Storm8	▲ 6	United States
7. Ninjafish Studios	▼ 5	United States
8. Orangenose Studios	▲ 1	Taiwan
9. George CL	▲ 79	Australia
10. Kabam	▲ 128	United States

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THE APP ANNIE INDEX

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... 4 *Miscellaneum Studios*



The company's goal is to enable experienced developers to become true entrepreneurs and pursue their dreams of creative independence.



... 5 *Pixel Crucible*



developers are aiming for a summer release, the five developers are already evidence of Execution Labs' potential:

» **Double Stallion** is focused on tapping into the retro-gaming market by reimagining classic game genres for mobile platforms. Tentatively called *Big Action Mega Fight*, their first title is a '90s-inspired brawler.

» **Imaginary Games** is bringing stunning, hand-painted art to a whimsical collectible card game called *Afterland*, about "a mysterious graveyard carnival of misfits."

» **Lightning Rod Games** strives to bring the face-to-face social aspect of board games to tablets. Its first game, called *Henchmen!*, is a twist on tower defense and will allow people using the same device or multiple devices to engage in synchronous, multiplayer gaming.

» **Miscellaneum Studios** is focused on producing transmedia IP that can be developed into games, comics, and more. Its first game, *The Firemasters*, will be a side-scrolling story about firefighters on a colonized Mars.

» **Pixel Crucible** is comprised of four industry veterans who are working on a game currently titled *MacGuffin Quest*, a hybrid of adventure, strategy, and management.

Regardless of the videogames and companies that Execution Labs helps nurture, its lasting contribution to the gaming industry is that it functions as a model for innovative thinking around the creation of new IP and how best to help game developers embrace entrepreneurship.

Although Execution Labs plans to open the program up to international developers, it is mandatory for all to be in Montreal while they are going through the program. In Della Rocca's eyes, "the mentorship and knowledge-sharing just doesn't work without this close physical proximity." There is a satellite office in San Francisco, but it exists primarily to build relationships with needed partners, press, and investors.

Those unable to set up shop in Montreal can still participate in Execution Labs' Lab Partners program (<http://labpartners.executionlabs.com/>). The ultimate lesson that indie developers can learn from Execution Labs is that they are not alone. Whether they are industry veterans or a single college student working in his dorm room, any indie developer who is struggling with marketing or jumping through legal hoops needs to remember that there are others out there who understand these difficulties and are willing to lend a helping hand. ✱

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A New World for Crowdfunding?

Equity-based Crowdfunding Comes to the United States

The global recession is still a very recent memory, but it seems that giving away money has never been so popular. Crowdfunding has exploded in popularity over the last few years: Established platforms such as Kickstarter and IndieGogo continue to show dramatic growth, and a crop of new, smaller platforms is fast rising to bite at their heels both in the United States and internationally.

Only 35% of game campaigns on Kickstarter have been successfully funded. As it turns out, fundraising campaigns for games are actually less successful than other Kickstarter campaigns (the overall success rate on Kickstarter is 44% for all projects).

Despite reports of projects that failed to deliver as promised and concerns of possible funding fatigue, crowdfunding for videogames is growing as well. Kickstarter, the leading US crowdfunding platform, had, through March 2013, raised \$45 million for videogame projects, and in 2012 more dollars were pledged to videogame projects than to any other category on Kickstarter. Rival sites, although significantly smaller in scale, are raising increasing amounts of investment: IndieGogo raised \$2.4 million in 2012, and produced \$829,000 for the recent *Skullgirls* campaign alone.

Not all projects are successful, of course. In fact, only 35% of game campaigns on Kickstarter have been successfully funded. As it turns out, fundraising campaigns for games are actually less successful than other Kickstarter campaigns (the overall success rate on Kickstarter is 44% for all projects). How-

ever, a number of projects have proven very successful. For example, in 2012 the developers at inXile Entertainment ran a campaign to raise \$300,000 for *Wasteland 2* and received almost \$3 million. While *Wasteland 2* was still in development, inXile launched a new campaign to fund a sequel game to the cult classic *Planescape: Torment*. On April 5, 2013, the campaign for *Torment: Tides of Numenera* ended and inXile quadrupled its goal, raising \$4 million on Kickstarter and becoming the most funded Kickstarter game ever.

"Donation" Crowdfunding vs. Equity Crowdfunding

Under the primary model used by crowdfunding platforms, "investments" are little more than donations. While developers incentivize backers by offering "rewards" such as digital downloads of the completed game and free t-shirts, no equity or return on investment is pledged in return for contributing the capital to build the game. Funders participate in campaigns out of sheer desire to see the projects fulfilled.

Far less common, but potentially far more interesting, is equity crowdfunding, where instead of "rewards" funders receive actual ownership interests in the sponsoring company (or perhaps particular projects) in exchange for their investments. Projects that provide equity in return for funding are attractive to potential backers for a number of reasons—not only will funders get to support a favorite game, but they get to be part-owners of the game and participate in its success (not to mention benefitting from additional regulatory safeguards in place to make sure that the promises of the developer are delivered).

Despite the significant potential benefits for both developers and backers, however, equity-based



by David Hoppe;
 Founder & Principal,
 Gamma Law;
 San Francisco, CA

crowdfunding is currently available in the US only through limited channels. According to a recent study, just 4% of all US crowdfunding dollars were equity investments. This dearth of equity crowdfunding is due to US securities regulations limiting how, and from whom, companies may solicit investments—short of registering a securities offering with the Securities and Exchange Commission, a hugely expensive and time-consuming process that winds up being available generally to companies that are already well-capitalized.

One exemption from the registration requirement, known as Rule 506 under Regulation D, allows companies to issue stock in unregistered transactions to “accredited investors.” Accredited investors are typically individuals with a net worth of more than \$1 million, or whose income exceeded \$200,000 in the previous two years. Startups and small businesses often use the Rule 506 exemption to raise early-stage financing, and it is estimated that approximately \$895 billion was raised in 2011 under Rule 506 (more than five times the \$169.9 billion raised in global IPOs in the same year).

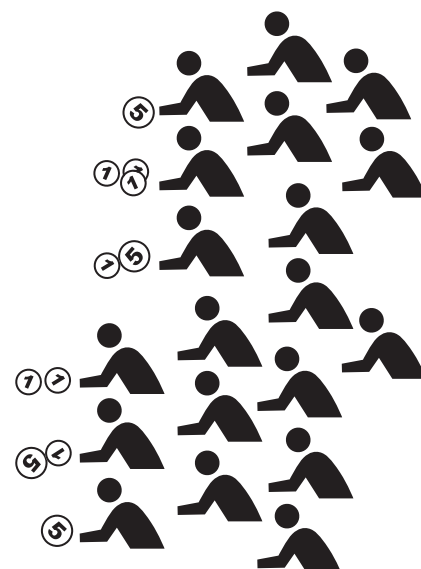
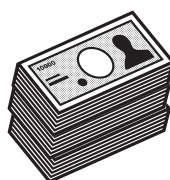
Equity crowdfunding websites like AngelList and CircleUp use Rule 506 to act as equity crowdfunding platforms for this limited group of investors. Everyone else is disqualified from participating, and because of lower amount of investment available and, as a result, fewer companies soliciting investments through these channels, they have not been able to attract the traffic and interest levels that Kickstarter and other “donation” crowdfunding sites have.

However, wheels are in motion that may change this situation in the coming months. In 2011, crowdfunding proponents led a rally in Washington to loosen securities law restrictions. This led to the “Jumpstart Our Business Startups Act” (or “JOBS Act”) that was signed into law on April 5, 2012. The JOBS Act is intended to encourage funding of small businesses by permitting a wider pool of small investors with fewer restrictions. The bill mandates changes in securities laws and represents a huge departure from the philosophy that has underpinned US securities regulation since the Great Depression. One of these changes is the removal of the restriction on “general solicitation” in certain kinds of investment offerings. The JOBS Act will also provide a new exemption from SEC registration requirements for certain types of small offerings and will permit crowdfunding sites to raise funds from non-accredited investors.

Regulating Equity Crowdfunding

Under the new exemption for crowdfunding transactions, a startup or small business may sell up to \$1

million of stock during any twelve-month period through an intermediary such a broker or an SEC-approved crowdfunding portal. The crowdfunding company must submit initial and annual filings to



the SEC and investors, including financial information (the type and scope of which becomes more extensive as the size of offerings increase), business plans, capital structure and risks of investment.

Non-accredited investors will be allowed to invest in startups subject to the following limitations:

ANNUAL INCOME OR NET WORTH	PERMITTED INVESTMENT IN 12-MONTH PERIOD
< \$100,000	Greater of \$2,000 or 5% annual income or net worth
> \$100,000	Greater of \$100,000 or 10% of annual income or net worth

Investors are limited to investing \$100,000 in crowdfunding offerings in a twelve-month period, and they must hold their securities for one year, subject to certain exceptions.

The SEC has allowed issuances to accredited investors under Rule 506 on the premise that accredited investors can protect themselves and adequately detect fraud, thus reducing issuer liability and transaction costs. Since this premise may not apply in the case of non-accredited investors and startups, the JOBS Act requires the SEC to draft regulations with strong investor protections.

Crowdfunding proponents have also warned the SEC that the costs of stringent investor protections,

such as audited financials and verification of investor qualifications, may make crowdfunding prohibitively expensive. Further, if equity crowdfunding winds up being too regulated, the basic objective of the JOBS Act will not have been met.

PROS	CONS
<ul style="list-style-type: none">> Larger potential for contributions> Potential value brought by professional investors as strategic advisors, etc.> New segment of investors	<ul style="list-style-type: none">> Must share returns with investors> Greater accountability and oversight> May need to give up management> Requires resources to manage financial aspect, investor relations, etc.

When Will Equity Crowdfunding Begin?

Although it's been over a year since the JOBS Act became law, it's up to the SEC to work through the details and draft the applicable regulations. The regulations were due on January 5, 2013 but have not yet been issued. In fact, the SEC has yet to issue draft regulations for comment, despite many in the industry asserting that a draft was completed last fall. The delay is thought to be largely due to personnel changes in the SEC. Another contributing factor may be that it must deal with many opposing views

Although donation-based crowdfunding is by far the norm right now, equity-based crowdfunding may in the long run be the most popular because it will provide the safest environment for its backers as well as the possibility of a financial return.

about how crowdfunding companies, the intermediary portals handling the transactions and even investors themselves can operate. In any case, significant progress is not expected until 2014.

An additional delay may result from a requirement in the JOBS Act that the Financial Industry Regulatory Authority (FINRA), a non-governmental organization, set forth its own guidelines for crowdfunding portals. No deadline was set for the FINRA rules. It appears that FINRA may not announce its own regulatory initiatives until the SEC completes its rulemaking process.

While the movement to open up equity-backed crowdfunding in the US may be stuck in bureaucra-

cy at the moment, equity crowdfunding platforms in other countries, though small, have continued to gain traction. Just this March, Swiss developer Urban Game Studios' railroad business simulator *Train Fever* hit its €250,000 (\$323,000) goal on Dutch equity crowdfunding site Gambitious. Gambitious offers investors the opportunity to get their advances repaid, and receive a return just like a publisher or angel or venture capitalist would receive. Urban Game Studios forecasts €822,500 in revenues for *Train Fever*, with Gambitious investors receiving half, equating to ROI of 165%. For now, the US has the advantage of scale, but progress must be made to open up equity-backed crowdfunding to stay ahead of international competitors.

When the JOBS Act does move into full implementation, a shift in the crowdfunding provider landscape is likely to occur. Kickstarter has indicated that it may not switch to an equity crowdfunding platform. This may mean that there is a wide-open space for a rival or newcomer to take the top spot in equity-based crowdfunding platforms. Although donation-based crowdfunding is by far the norm right now, equity-based crowdfunding may in the long run be the most popular because it will provide the safest environment for its backers as well as the possibility of a financial return.

Deciding Whether to Try for Equity Crowdfunding

Despite the potential of equity crowdfunding to greatly increase the amount of money available for game developers (which means both that more developers should be able to get funded, and that the average amount raised should increase), equity crowdfunding may not be the obvious choice for most developers. The potential benefits of equity crowdfunding—such as access to much larger amounts of funding—will be accompanied by responsibilities and requirements that may seem unduly burdensome for many developers in comparison to the donation model. A few of the factors to be considered can be found in the pro & con sidebar above.

Looking Ahead

It probably is not an exaggeration to say that equity crowdfunding, when it finally arrives, will open a new world of financing opportunities for US game developers. While we might reasonably expect increased availability of investment and more successfully-funded projects, it seems clear that equity crowdfunding will not be the best choice for all developers and for all campaigns. Nevertheless, this new crowdfunding channel is likely to bring even more attention and legitimacy to traditional "donation" crowdfunding, thus benefitting even those developers who wish to continue using that approach. ❄

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Getting Your Game Reviewed

Tip and Tricks from an Editorial Gatekeeper

With the volume of requests we get, emails from unknown persons are given five to 10 seconds at most to catch our interest.

As someone who's had the pleasure of deciding which games we should be covering at Gamezebo over the last few years, I've had the good fortune to see the trends that can help a good game get recognized and those that can get pitched directly to my trash folder. Want to know how to improve the chances that an editor will pick your game for coverage? Then read on, dear reader!

First Impressions Are Everything

Unless you already have a standing relationship with an editor, your email to him or her is more than a request for review; it's an introduction from one human being to another. Think about it as if you were presenting your game to a stranger in real life, because frankly, that's exactly what you're doing. Just because we're separated by a monitor and keyboard doesn't make our interaction impersonal.

What does this mean? First off, it means short, rude, and uninformative emails aren't going to win you any favors. This should be common sense, I know, but you'd be shocked by how many two or three sentence emails I get. *"I just released my game. Review it."* Um... nope!

But, while an email that's too short and uninformative is tantamount to coverage suicide, a long email that fails to say anything can be just as bad. The lesson here? Be succinct. Share as much information as you can in as few words as possible. If an elevator pitch can be described as 30 seconds of talk that gets your point across,

then editors are looking for a pitch at the speed of a Star Trek turbolift. With the volume of requests we get, emails from unknown persons are given five to 10 seconds at most to catch our interest.

It sounds impossible, right? Well here's the trick: Include a quick list of highlights, some screens, a link to the trailer on YouTube, and links to your website and/or where the game can be downloaded if it's already available. You can frame all of this in a few well-written paragraphs—we'll no doubt read them if you've wowed us with the rest—but these other items are easy to skim and will give us our first real impression of what the game is about.

Know Who You're Pitching To

It may surprise you, but there's not a day that goes by in which someone doesn't ask me if Gamezebo will review their non-gaming app. Photo filters, interactive books, scientific calculators—you name it, we've been pitched it. And while I don't expect anyone reading this article to try to pitch their virtual laundry timer to the gaming press, it's just as important that you don't waste your time pushing your video game to a cupcake blog.

All right—it's unlikely that you'll do that either. But what you *might* do is pitch your game to an editorial site that's not really a good fit. Let's talk a minute about site XYZ. Site XYZ is a real site, but I'm not really a fan of having the words "slander" and "libel" thrown around, so I've changed the name to protect... well, me. But just know that everything I say about site XYZ is 100% accurate, and a great example of why this rule is so important.

Are you making a mobile card battle game? XYZ's probably not a good fit—they weren't very kind about genre leaders like *Rage of Bahamut* and *Marvel: War of Heroes*, and they didn't even bother with *Dragon Collection* or *Reign of Dragons*. Unless you've made



the single greatest CCG of its kind, why would you waste your time and energy banging on their door? Why not go after site ABC that *loves* your genre?

Because, you say to this article that can't possibly hear you, *I've done even more research than you!* If that's the answer, then kudos—have at it. Maybe you've identified a writer at XYZ who loves the genre but has always written about it elsewhere. Don't reach out to XYZ then—reach out to the writer directly. If you can't find a direct email address, don't be afraid to use social media. Twitter's your friend. If you reach out kindly, earnestly, and ask for the writer's help in getting your game reviewed on XYZ, you'd be surprised at how often you'll get a positive response. Video games journalism is commonly freelance work, so if you're giving a writer an opportunity to pitch something that can help him pay the rent, his gut reaction isn't going to be “no.”

You Can't Buy a Good Review

Video games are a global business, but the language of business isn't global. Cultural differences carry over into the world of business every day, and as it turns out, there are a lot of places in the world where purchasing reviews—and even purchasing reviews that guarantee a positive score—is common practice. Because of this, I get an alarming amount of emails asking me how much we charge for a review, and how much it will cost for us to publish the review they've pre-written for us.

I suppose this goes back to my previous point: Know your audience. While this may be a culturally common practice where you reside, this is something that's beyond taboo in the West. Just the very notion that someone could think us corrupt makes my stomach churn. As you might have guessed, this isn't the best first impression to make when you're pitching us your game to review.

And while I've become used to such requests, and have a canned response in my Gmail to politely explain that this isn't the way we do business, emails like this will probably always rub me the wrong way.

Having said that, I can't ignore the fact that there *are* some sites who participate in such morally dubious business practices. It's best, however, to let them broach the subject with you rather than you with them. An editorial site that will charge you to “move up in the queue,” or guarantee a review for a set price, will generally be more than happy to bring it up in their first reply. To them, it's a sales tactic—a way to stay in business.

If you're comfortable buying your way to a good review, that's between you and your conscience. Just remember: Most of us view this as a big no-no.

This is why so many sites are proud members of O.A.T.S. (<http://www.gotoats.org/>).

Have More to Offer Than Just a Review Request

While you might see a site like Gamezebo as “a place that can review my game,” we're really much more than that. We're content creators, and we serve a growing audience of readers who aren't satisfied with just knowing whether a game is good or not. They want to know about a game long before it comes out. They want to read about the developers behind those games. They want to be more than a consumer of your product—they want to be a part of your product's community.

So why are you just contacting me now, when your game has been out for two weeks?

The more you are willing to work with an editorial site, the more it will be willing to work with you. If you're a publisher that bangs out three mediocre iOS games a week, sends us codes every Thursday, and doesn't bother to engage us in any other way, we're probably going to treat you with

as much interest as you treat us.

On the other hand, if you reach out to us when your game is announced, offer to answer interview questions, write developer diaries, etc., we'll be with you every step of the way (provided we're actually interested in your game). Which brings me to my final point...

Above All Else, Make a Game Worth Covering

This is going to be a tough pill to swallow, but be a good lad, and please, don't make a scene. There's a very real chance that the game you've made isn't so great. For lack of a better word, your game might suck.

Ok—you want some better words? Let's go with these: derivative, uninspired, ugly, repetitive, dull, amateurish—the list goes on and on. But what it all comes down to is this: If my experience is any indication, the average editor gets thousands of review requests every month. Out of those, we probably pick 50 games to review. If your game doesn't wow us on first glance, it won't get a second.

By the numbers, games we're pitched by developers make up a little less than half of the games we review. The rest are hand-picked by our editorial team, no pitch required. If you have a game worth covering—something that *truly* speaks to our audience—you'll probably end up in the hand-picked category to begin with. And if you can make a game that appealing, I suppose the bulk of this article is moot. ❄



by Jim Squires;
Editor-in-Chief,
Gamezebo;
St. Catharines, ON



If you reach out to us when your game is announced, offer to answer interview questions, write developer diaries, etc., we'll be with you every step of the way (provided we're actually interested in your game).

Standing at the Crossroads

The Challenges and Opportunities Facing the F2P Games Industry

Because my company, Matomy, is a performance-based distribution and monetization source on all online and mobile media channels (including display, affiliates, value exchange, search, email and social), I get a broad-based, comprehensive view of the free-to-play (F2P) games industry. And from that unique vantage point, I can't help but come to the following conclusion: F2P is at a crossroads—for a variety of reasons:

It's hard to maintain and grow a company when your paying audience is only a fraction of your overall audience. It's even worse when you take into consideration the value chain of user revenue.

• Rising Costs

The small studios are stuck between a rock and a hard place. On the one hand, costs of game development continue to grow because of new platforms and devices, better graphics and hardware, and growing labor costs. At the same time, the costs of user acquisition have tripled in the last two years (and that is stating it modestly).

• User Monetization

One of the challenges facing the majority of game publishers is how to monetize the 95% of players who do not pay. It's hard to maintain and grow a company when your paying audience is only a fraction of your overall audience. It's even worse when you take into consideration the value chain of user revenue. For example, in the case of social games, less than 70% of the proceeds generated by those paying users go to the publisher because of Facebook commissions, credit card fees, and other supplier costs along the distribution chain.

• Creative Stagnation

A lot of companies are putting out games that I like to call "Copy Paste" titles. Game genres like city-building, farming, football managers and virtual worlds are very similar to one another. Innovation is kept to a minimum, with a kind of "stick to what works" attitude. Some might blame rising costs, but unfortunately that attitude conflicts with the fundamentals of good game development. It discourages players from trying new games and also shortens

the user's overall playing time, both of which have a direct effect on monetization. Moreover, sometimes even releasing "Copy Paste" titles isn't a guarantee. We see this in social games sequels like *CityVille 2* and *Mafia Wars 2* from Zynga. Both games failed to reach even half of the DAU success of the original titles and were closed.

• Cross-platform Demand

Users today want to access their games on a range of synchronized platforms, picking up where they left off no matter where they are. This creates a huge opportunity for publishers to increase engagement and (eventually) the lifetime-value of the player. Our in-house research shows that the average time a user spends on online games hasn't dropped significantly year-over-year, but playing patterns have shifted and publishers are not moving quickly enough to monetize users on a variety of platforms.

Where to Go from Here

As publishers stand at this F2P crossroads, it begs an important question: What can be done about it? A few monetization opportunities come to mind:

• Offer More Direct Payments

We are seeing a lot of publishers looking to make it easier for their players to make direct payments. If users are willing to pay for virtual currency or goods, game developers must offer them every option to do so while taking into consideration that players are located in different countries with different acceptable payment methods. Paying-users are rare, and if you don't accept *all* billing methods (credit cards, PayPal, local e-commerce solutions, mobile payments and carrier billing) you are likely to lose valuable income while frustrating your best users.

• Offer Value-exchange Payments

Value-exchange advertising is increasing in popularity as a range of brand advertisers are now turning to games as a medium for introducing new products to consumers. Today every cent counts, and video offers are a good example of that. Major brands will usually pay a few cents for a single view of one of their video advertisements, which for a large studio with millions of users results in a very nice addition to the bottom line. However, for a small struggling studio with, let's say, 300,000 users, one video campaign can fund a developer's salary for a month. That's a game-changer.

Offer Enticements

The fact is that most users will not open their wallets and pay directly for game points. But if a publisher rewards them with a premium virtual good or game points, or invites them to watch an advertisement or complete a survey, there is a double benefit. The first one is very clear: The publisher monetizes many non-paying users. The second benefit for publishers is an "after effect": Once users get premium virtual goods or game points, they get a taste of the good stuff— and there is higher probability that in the future they will buy virtual currency directly. Two years ago, value exchange advertising was a distant second to direct payments as a way of monetizing users; but today a lot more F2P game developers are looking to complement their other monetization methods and increase revenue from their pool of non-paying users.



by Ary Cohen;
General Manager,
Matomy Media Group;
Tel Aviv, Israel

Users today want to access their games on a range of synchronized platforms, picking up where they left off no matter where they are. This creates a huge opportunity for publishers to increase engagement and (eventually) the lifetime-value of the player.

In conclusion, the industry is growing, but at a slower pace than before. Leaders like EA and Zynga are dropping Facebook titles and focusing on mobile. Ubisoft is switching to F2P because of piracy on PC games. Cross-platform F2P games are becoming the standard in the industry as players are turning away from consoles and expensive AAA titles and adopting more web and mobile games. These turbulent times are forcing a lot of companies to be more flexible and creative when it comes to implementing new ways to improve ARPU. ❄

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by Ed Sarausad;
Sr. Managing Partner
& CTO, The Alacer Group;
Seattle, WA

We Know Who You Are... and What You're Doing

Using Unstructured Data to Stop Gaming Fraud



Think of it as the good cop/bad cop analogy: The good cops use the data to segment customers and to see how to maximize revenue, while the bad cops use the same data to prevent fraud.

In the last year, there has been an explosion of applications and casual games utilizing cutting edge graphics, sophisticated computer interaction and artificial intelligence to create compelling environments for consumers. New, diverse populations (retirees, families) are discovering casual gaming as a hobby; the Casual Games Association estimates there are now 250 million people worldwide playing games via the Internet.

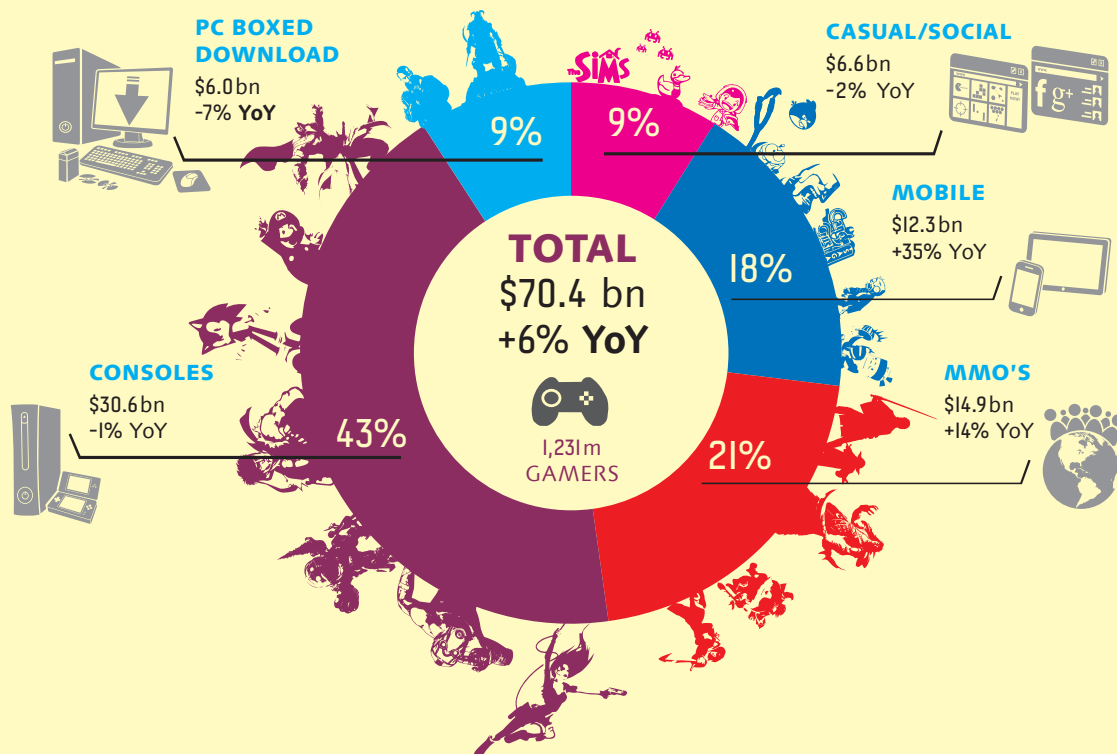
According to Newzoo, a market research firm focused on the gaming industry, the casual/social networking game market is a \$6.6 billion business. Even traditional console game developers are grabbing a piece of the casual gaming pie. But as the pool of casual gamers continues to grow, security issues—such as those surrounding identity theft and rogue servers—continue to multiply

“Social networks have become the new frontier for online crime,” says Ariel Silverstone, author of *The Security Blog* and a 25+ year cybersecurity veteran. “Casual games that intersect with and depend on social networks are extremely vulnerable to fraud since the identities of players are rarely validated. For example, *Consumer Reports* reported last year that more than 13 million users didn’t understand or use Facebook’s privacy controls, making it easier for hackers to phish, spoof and more.”

THE GLOBAL GAMES MARKET 2012

Based on combined analysis of company financials, transactional data and consumer research

PER MARKET SEGMENT



SOURCE: Newzoo 2013 Global Games Market Report

It's hard to estimate the breadth of cheating within the casual gaming industry, since many developers are loathe to talk about their security issues. But for online multi-player games, it is prevalent across the board and one of the biggest detriments to positive revenue flow.

The Impact of Cheating

Game analytics, or the use and understanding of unstructured data, has emerged as one of the primary tools developers can employ to ensure game quality, maximize the player experience and halt fraudulent activity, including one of the biggest problems: players who cheat. Exactly how big is the problem of cheating? Valve Corporation's game platform, Steam, developed an anti-cheat solution in 2006 after it detected 10,000 cheating attempts in a single week. As of 2012, it had terminated more than 1.5 million accounts within the 60 games running on Steam.

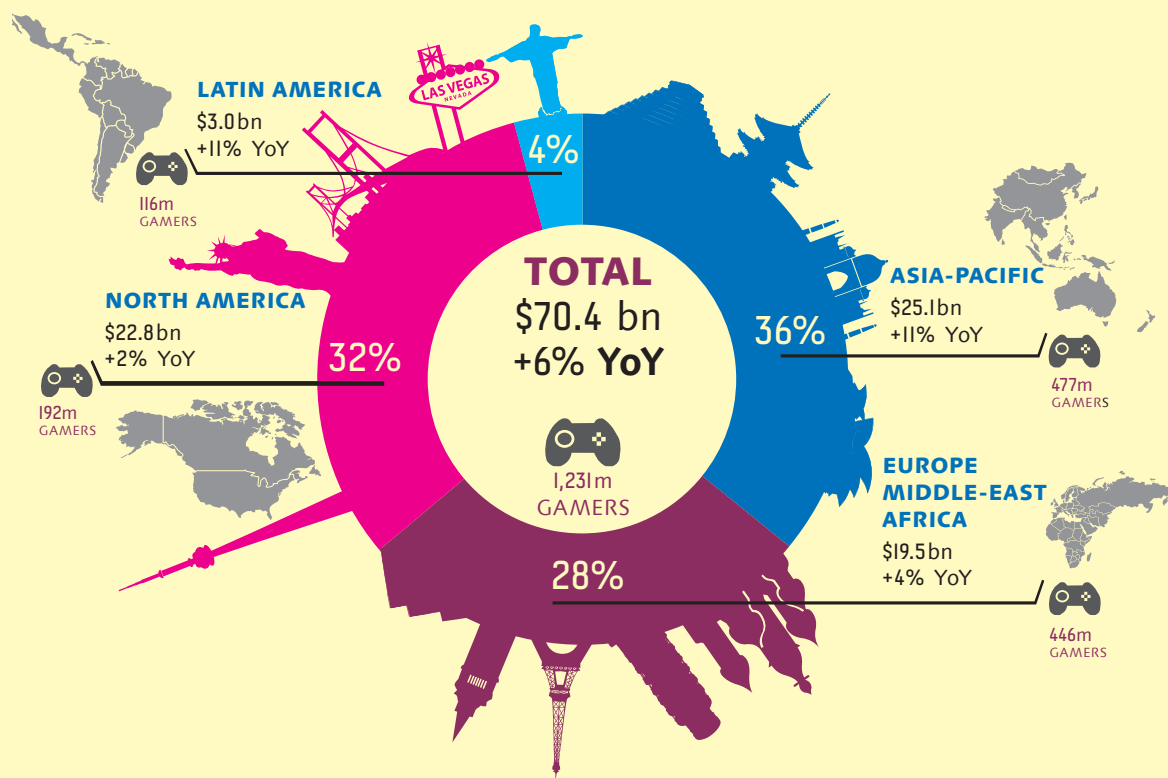
Honest online players hate cheating players. Cheaters ruin the experience for them, and so they defect to other gaming products. A *Tetris Battle* player's post on a forum summed it up: "I am deleting the game, and I'm recommending to everyone I know to stop playing the game as well."

It's hard to estimate the breadth of cheating within the casual gaming industry, since many developers are loathe to talk about their security issues. But for online multi-player games, it is prevalent across the board and one of the biggest detriments to positive revenue flow. Greg Costikyan, a 30+ year veteran of the gaming industry, commented in his report, *The Future of Online Gaming*: "An online game's success or failure is largely determined by how the players are treated. In other words, the customer experience—in this case, the player experience—is the key driver of online success."

Using Data to Identify the Thieves

In-game currency is estimated to be a \$1 billion industry in the U.S. alone. When savvy social game players figure out how to "game" the system, stealing currency rather than buying it, the game developer loses significant revenue. But as Greg Costikyan points out, it also may spur the defection of additional players who get frustrated when they don't advance in the game as quickly as their cheating counterparts. Arguably, this is as damaging to

PER REGION



the game developer as the lack of proper controls for purchasing in-game currency.

Normally, network security flaws involving game-play are identified and solved on the back end. Often using thousands of servers at high capital and operational expense, IT security personnel will play back every transaction and analyze it in order to determine who the cheaters are and how they are manipulating the game.

This is not only time-consuming, it's expensive. Thus when the Alacer Group was hired by one of the world's largest casual online gaming companies to address revenue leakage experienced through fraudulent game-play, it proposed a better way. Online game developers have vast amounts of unstructured data at their fingertips. What if that data could be manipulated to identify and stop fraudulent game activities in real time?

Alacer used analytics to examine and model game-play and to determine player navigation. It was then possible to design mathematical algorithms that could define the average player and predict the average way he or she would progress in the game. We could then define the threshold range for what

would be acceptable play; anyone that fell outside of the threshold range would be flagged as a potentially fraudulent player. This would allow the game developer to immediately freeze accounts for those advancing too quickly—thereby plugging the revenue hole.

Establishing Average Player Profiles

The average player profile was determined by examining data such as:

- social network friends the player interacts with
- the level and rapidity of gaming achievements
- most utilized game elements

From these data points and others, very interesting player analytics emerge:

- users known as “one try wonders” who only try the game once
- “early defector” users who do not utilize the game for its expected lifetime
- those known as “try hards” who will continue to play until they obtain a goal

Of these, the “try hards” are often the most valuable players in online games, as they stay on the site the longest, are the most likely to purchase game currency and often invite friends to join. However, this is also the group that is the most frustrated by

The global nature of online casual games has spawned an even darker side of fraudulent credit card activities. Organized crime has been known to utilize game currency to launder money by selling fraudulently obtained online tokens and objects for cash.

cheaters. As one user complained to developers about cheaters in the game, *Kabam*, “You are making good players either leave the game or resort to the same cheating to try and rid the game of the ones in question.”

Unstructured data can also be used to resolve other gamer and developer frustrations. Often, cheaters establish fake accounts, called duping, where imaginary players lose at a game in order to artificially boost the cheater’s standings. Deep analytics can reveal and eliminate these fake accounts based on their win/loss ratios.

Perhaps more importantly, data can also pinpoint game “whales,” or frequent players who spend too much too quickly to maximize their advancement in the game. There is a strong probability that these whales are, in fact, using stolen credit cards. Last year, a woman in Tennessee used a stolen credit card to purchase \$4,500 in virtual buildings, crops and animals in the Facebook game *FarmVille*. A 12-year-old boy in Great Britain stole his mother’s credit card and racked up \$1,400 in *FarmVille* purchases before he was caught.

The global nature of online casual games has spawned an even darker side of fraudulent credit card activities. Organized crime has been known to utilize game currency to launder money by selling fraudulently obtained online tokens and objects for cash. Before anyone catches on to what’s happening in a virtual world, the real world thieves are long gone.

“Alacer’s gaming client used the extracted data to quickly close security holes,” explains Nitin Gupta, senior consultant and project team lead. “The older server-based methodology of searching for fraud can take months; instead, we developed the

algorithm for identifying a potentially fraudulent player and inserted into the network stream within weeks. Players that statistically fell outside of the norm were flagged by the system and access was immediately revoked, greatly reducing the amount of lost revenue.”

Beyond Fraud Prevention

It should be pointed out that not every game developer chooses to ban a fraudulent player when he or she is identified. In fact, one company, Rockstar Games, chose to create a second version of the online game *Max Payne 3* specifically for fraudulent players; anyone found cheating in the original game was quarantined to the cheaters version. In this instance, the developer determined that it was more valuable to keep the cheating players than to ban them entirely from the game.

Sometimes, the reason a developer does not plug its security holes is the cost of the solution. After running a basic cost-benefit analysis, the cost of the fix appears to be higher than the loss of revenue attributed to cheating players. However, taking a broader view of the analytics, it may be possible for the fraud analysis to more than pay for itself.

For example, rather than using the extracted data merely to fix security breaches and stop cheating players, a developer might also use the data to provide marketing and sales insights. Slower game players and one-time users, quickly identified through the data analysis, might be pinpointed and targeted for promotions to entice faster and more frequent play—increasing company revenues. Other monetization strategies might also be developed through a closer examination of how players navigate the game.

Think of it as the good cop/bad cop analogy: The good cops use the data to segment customers and to see how to maximize revenue, while the bad cops use the same data to prevent fraud. By working together across the organization, developers can stop cheating players while, at the same time, gaining an understanding of how partners, vendors and even employees cause churn and a revenue drain.

Data can be used to create enticing choices or calls to action based on user biases, emotions and memories. Game developers can and do obtain richer and more valuable user data over what traditional market research achieves, which can lead to revenue stability. The data delivers an understanding of each game player, and what he or she is doing while in the game.

For those interested in how data analytics is used specifically within the gaming genre, a good primer is now available on Amazon: *Game Analytics: Maximizing the Value of Player Data* by Magy Seif El-Nasr, Anders Crachen and Alessandro Canossa. ❄



MONETIZATION

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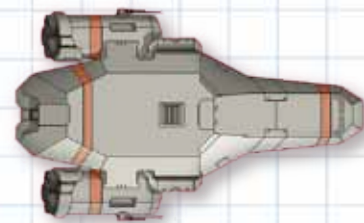
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Now We Are Talking

Matthew Davis talks about *Faster Than Light*



Matthew Davis received a degree in Computer Science from UC Berkeley before entering the game industry. He worked for a couple of years at 2K Games in Shanghai but left to pursue independent development. In 2011, Matthew and former 2K co-worker Justin Ma founded Subset Studios to create *FTL: Faster Than Light*, which met with unexpected popularity and has won awards such as *PC Gamer's* Short-form Game of the Year in 2012 and the 15th Annual Independent Games Festival's "Excellence in Design" and "Audience Award." *FTL* was also selected as the "Best Debut" at the Game Developers Choice Awards in 2013.



Prior to going to college, were there videogames that inspired you to pursue Computer Science?

I went into Computer Science more out of an enjoyment and interest in programming than with the intent to develop games. Making games for a living seemed to be more of a fantasy that I didn't seriously consider as an option until after graduation. I grew up playing classic CRPGs like *Fallout*, *Baldur's Gate*, *Planescape*, and *Arcanum*. Simulation-heavy games like *Mechwarrior* and the *X-Wing* series were also pretty big influences.

You went to school in Berkeley, you worked in Shanghai for 2K Games, and now you live in York, U.K. How has living in California and China influenced how you make games for a global market?

Funnily enough, most of my development has still been very US-centric. In China, I was making American sports games at 2K, and North America makes up about half of *FTL* sales. That said, you don't spend years living globally without it influencing you. While board games have taken off globally in the last few years, I first started getting into them heavily in China because many of my co-workers enjoyed them. Ultimately, *FTL* was strongly influenced and inspired by board game design. It's the diversity of small experiences that add up when living abroad.



After working at 2K Games, what were some of the reasons why you wanted to start your own company?

Justin and I wanted to make games that we loved and wanted to play. It's hard to do that in a studio environment if you're not the head of the studio or team. Working independently allowed us the complete freedom and creative control to make what we thought could become awesome games. It also didn't hurt that independent work means working from home in your pajamas on your own schedule instead of having to show up to an office every day!

Looking back, what was it like to shift from working for a company to running your own studio?

I was a game-play programmer at 2K China, so I had no business or managerial experiences there. I was able to take a lot of what I learned as a programmer to *FTL*, but both Justin and I were completely clueless when it came to the business side of things. It has been a trial by fire experience to start a company, including seeking legal counsel, negotiating agreements, and all the other things that go into managing a small business. Luckily, we've had the help of family and friends more knowledgeable on the subject than we are.

On the *FTL: Faster Than Light* website, the game is compared to important sci-fi franchises like *Battlestar Galactica*, *Star Trek*, and *Firefly*. What was it about these franchises that appealed to you and Justin?

The best parts of those series are the micro, episodic problems that each crew has to solve. There's a huge variety of things that go wrong on a spaceship, and, as you watch the crew, it's a blast to figure a way out of a tight situation. We hoped to carry over a similar feeling with *FTL*, where you are in charge of making sure the crew manages to survive to fight another day.

What were some other games (digital and non-digital) that influenced how *FTL* was developed?

As I mentioned, board game design had a very heavy influence on *FTL*. The initial concept was inspired by games like *Battlestar Galactica* and *Red November*, which focused on managing a ship (or submarine in *Red November*) instead of flying one. Too many computer games focus on the "dog fighting" aspect of space battles instead of the *command* aspect. The static viewpoint, random events, and board-like structure to the ship are all elements borrowed from tabletop games.



Matthew Davis, Founder,
Subset Games; Bradford, UK

Faster Than Light

To help develop *FTL: Faster Than Light*, you and Justin turned to Kickstarter to raise funds. Not only did you reach your initial goal of \$10,000, *FTL* generated over \$200,000 from donations. Why do you think *FTL* succeeded when others fail?

A large part of *FTL*'s success was the lucky timing we had. We launched our Kickstarter within a week of DoubleFine's Kickstarter, which famously went on to make millions of dollars and drive thousands of new users to Kickstarter. The extra press coverage and interest in crowdfunding put a lot more eyes on our campaign than we would've had otherwise.

Other than good timing, I think *FTL* capitalized on a fantasy that anyone watching classic science fiction has: commanding your own space ship. People understood what the game was trying to emulate immediately, which made the pitch much easier. We got lots of emails saying "I always wanted to make a game like that!"

How did the extra money from Kickstarter impact how you developed *FTL*? Did it change the development schedule or encourage you to have more available by launch date?

We felt that we owed it to the Kickstarter backers to release on time. But we also knew that we needed to put the extra money towards improving the game. It was a very difficult balancing act to enhance the game but also release on time. We decided to expand on content instead of making any big design changes (like multiplayer). Our composer was able to stop working full-time and devote much more time to his awesome soundtrack. And we were able to hire a contract writer to really expand on the universe and add hundreds more events.



***FTL* is available on Windows, Mac, and Linux. Why is there no version for tablets and iOS devices?**

We're currently looking into development for tablet devices. The game was designed from the ground up as a PC game, so the UI and controls reflect that. We would need a complete redesign of the user experience in order to release a high-quality product on tablets, and we want to make sure that's possible before guaranteeing anything.

With *FTL* completed, what are some long-term goals for Subset Games?

We're not sure what's next for Subset Games. We still have work to do on *FTL* with potential ports, patches, tech support, and some final Kickstarter backer rewards. We'd like to move on to a new and different project rather than continue expanding on *FTL* though.

***FTL* earned or was nominated for several awards in 2012. How does this recognition make you feel? And more to the point: How have these awards affected your company and the game?**

It's been amazing! It's a surreal experience to have a small hobby project turn into something that is receiving some of the biggest awards in the independent game industry. The financial benefit is hard to quantify. It's just good to have things that keep us in the public eye and remind everyone that *FTL* exists. I think the honorable mentions for Independent Games Festival (I.G.F.) last year really helped get the word out and lead to the successful Kickstarter campaign. ✨

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