Abstract

The goal of this project is primarily to establish a collection of video games developed by companies based here in Massachusetts. In preparation for a proposal to the companies, information was collected from each company concerning how, when, where, and why they were founded. A proposal was then written and submitted to each company requesting copies of their games. With this special collection, both students and staff will be able to use them as tools for the IMGD program.

Introduction

WPI has established relationships with Massachusetts game companies since the Interactive Media and Game Development (IMGD) program's beginning in 2005. With the growing popularity of game development, and the ever increasing numbers of companies, it is difficult to establish and maintain solid relationships for each and every company. As part of this project, new relationships will be founded with a number of greater-Boston area companies in order to establish a repository of local video games. This project will not only bolster any previous relationships with companies, but establish new ones as well. With these donated materials, a special collection will be established at the WPI Library, and will include a number of retail video games. This collection should inspire more people to be interested in the IMGD program here at WPI. Knowing that there are many opportunities locally for graduates is an important part of deciding one's major.

I knew I wanted to do something with the library for this IQP, but I was not sure exactly what I wanted when I first went to establish a project. After being made aware that a video game collection from local companies had not been established, I took that on as a challenge. I had no previous knowledge of exactly how many companies there were in the greater Boston area, or how big the companies were, or what they had made. The only companies I really knew were there were Harmonix, and 2K Games. There are many more, however, and each is taking a unique approach to what they do. Each company also got to the place they are today differently, and thus they are all interested in different types of games as well. From city building games like Caesar IV, to children's games like *Blue's Room: Blue Talks*, to blockbuster hits like *Bioshock* and

Mass Effect, Boston area games companies have done it all. As far as the east coast in concerned, Boston is the place to be for game developers. Although Philadelphia has a good presence, especially considering they host the VGXPO (Video Games Expo), the largest gathering of game developers and the like on the East Coast. However, according to Demiurge's Albert Reed, there has been greater talent to be found in Boston than what he had found in Philidelphia. Massachusetts also has made very tempting offers for companies to come here. On July 5th, the Boston Globe wrote that companies in the business of video games may be able to get a 20% tax credit, much like the film industry. Many companies are still going and growing strong, while others have struggled and failed, like with any company (Wallack). What is interesting is simply the number of companies that have chosen Boston as their home. With Boston having an extremely high concentration of colleges, the pool of prospective employees is always going to be there. Not only do most colleges have graphic design courses, but technology is such a major part of our lives in this day and age. This generation grew up with video games, surrounded by big screen TVs and consoles. With this reliance on technology, it is no wonder that computer science students find programming for games as a career. It is not unheard of for college students to actually start their own company soon after graduating, and in fact some students from WPI have done just that, with Dargonfly Game Design, now a part of Imaginengine. It seems that it may even be a matter of quality over quantity. In Boston, these companies are not going to have an enormous selection of people to choose from in comparison to the population around the West, but here they know they are getting quality employees. Places like MIT constantly churn out very capable programmers and schools like WPI that now have a concentrated program in the

field will always provide a source for good employees. That is not to say that you cannot get a great education out West, but there are more and more schools here focusing on technologies like in the video game industry. Though Silicon Valley is considered the home of all things video game, a museum there actually contains an extremely old computer running one of the first ever games, which was made right here at a college in Massachusetts.

Without having a repository for local companies, everyone here at WPI is no doubt missing some good information. The game companies of Massachusetts don't just work on any games, they work on some major blockbuster games. I think most people assume that if you want to work at the best companies, they should go to California. Not only will the collection debunk any thoughts of this sort, but it will also serve as a tool for everyone here at WPI. What better way to stimulate interest in a class than having a professor pull out a game developed locally, and demonstrate the great work these companies do? These tools could be used to point out any part of almost any genre of game, considering that the Boston companies work range from mobile phone games to the latest PC games. Having these games to show how certain game mechanics work, how a compelling story works, or to show any other aspect of the graphics or game play would be of great use for our IMGD courses here at WPI. Other projects have created archives of important games, but that does not quite have the geographical focus this project does. Instead of amassing games from all over, this project will focus on local, Massachusetts companies, and will hopefully drive more interest into the IMGD program as more students are aware of the opportunities locally.

In addition to the collection of games will be an essay discussing the history of video games here in Massachusetts. The gaming industry is deeply rooted here, and many people are unaware that the first game considered to be interactive actually was made in Massachusetts. This historical essay alongside the local game company games will help establish a solid timeline of the work these companies do, and what they have done here in Massachusetts. Examining their history will not only allow for students to learn what these companies have been up to, but also where they may go next. As potential employees of these companies, students will want to know what the company is like before simply jumping in; this history of each company will assist in that manner as well.

Developing the Archive

This project ideally will stand as a launching pad for future development. Establishing this special collection will open up project opportunities for future students. There are always new companies forming here in Massachusetts, and thus opportunities will always be there to help us build the archive. With some of the companies we currently are in contact with, we should start this collection off with a number of interesting pieces. Basically, we are looking for anything that would document a company's history. It could be something as simple as a press release, or something as interesting as a T-shirt displaying their latest title. I know we already have some members of the IMGD department that have received these sorts of items, and with WPI being such a great school, we hope that the companies will be interested. The only bad part about an archive like this is that we are dependent on the companies to keep it going. We

are of course relying on the generosity of these companies, but larger companies have no qualms about helping a college.

For future projects, I am sure there are companies that have been overlooked here, as gathering the information can sometimes be tough, this project started with a small group. As the project is built upon we can hopefully even show companies our progress, and urge them further to donate to the collection. It will be a wonderful, eventually bountiful resource of not only information but teaching materials at the same time when we begin to take in items. Starting something new is always exciting, especially when it involves video games, and companies that are right next door.

Future progress should be made by expanding on methods used for this project. Again, making contact with the companies will be essential, as well as identifying the proper person to contact when it comes time to create a proposal. One possible method could be working with a single company for each iteration of the project. This way, the project members would get to know the company much better, and should increase the chance of receiving items for the archive. This sort of method is untested, but if the companies allowed for good communication between the students and the proper contacts at the different companies, it should be effective. Other suggestions for future groups will be addressed in the "Suggestions" area of this paper.

Maintaining the Archive

One advantage to this type of archive is that it will never be out of date so long as we have people working on it. As technology progresses, the items we receive into the archive will be going through the same changes, and so it would be a good project to pick

up at any time. This will be essential in the long run, and will ensure the longevity of archive. It will be even more exciting ten years from now when we have a complete set of materials that would then be considered ancient. The only thing that would prevent the preservation of the project would be that video game companies decide to leave Massachusetts, and given the current trends, that is not likely to happen. Once the archive is developed further, and we begin to gather more items for it, it will serve the WPI community better. Having the archive as a tool and developing that tool should be important to the IMGD program, especially the students, who may some day in the future work for one of the local companies.

Specifically, the only real way to maintain the archive is to simply have people expanding it on a regular basis. Each new expansion does not have to go after new companies either. For example, say a company has a rich history in Massachusetts, and this year we received something from them documenting much of that. However, the following year they release a hit game, and they become known for that game. With students continuing work on the project, this type of event should excite them, and with a company that has already made donations, there is a good chance of getting some new material to represent their new work. This would be the clearest example of what is meant by "maintaining the archive." Of course, when working with a new company students would go back and use the methods of developing the archive.

Brief History of the Industry

Typically when you think of video game development, you think of the West Coast. Silicon Valley and its surroundings are littered with video game companies, but

the industry as a whole started much further away. *Spacewar!* is considered to be the first interactive computer game. In 1961 Steve Russel, Martin Graetz, and Wayne Wiitanen created the game as students right here in Massachusetts at MIT. Using Digital Equipment Corporation's PDP-1 computer at MIT, the students took around 200 hours to create the initial working version. The player could thrust, rotate, fire, and hyperspace. Using these controls people enjoyed the first interactive game, and it all started right here in Massachusetts. If you had an Atari 2600, you have no doubt played this game, likely in the form of an updated clone, *Space War*. If you don't have an Atari lying around, you could still play the original on a PDP-1. Sadly, and rather ironically considering it was created at MIT, the only working PDP-1 system is at a museum in California, where people can still actually play *Spacewar! OXO* and *Tennis for Two* were created in 1952 and 1958, respectively, but neither was a program written to run on certain hardware. The creator of Tennis for Two, Willian Higinbotham, actually worked at MIT on radar systems from 1941 to 1943. Nonetheless, as far as truly interactive games go, *Spacewar!* was the first, if not one of the first. Most people consider the gaming industry to be based on the west coast, but it all started right here in 1961. (Kent, Wikipedia, Fleming)

In 1968 Sega released a game in Japan called *Periscope*. This was not a video arcade game, but rather a game using conveyor belts and lights to emulate being in a submarine and sinking enemy ships. It garnered so much attention in Japan that it eventually would be imported to the United States, where it enjoyed popularity at a cost. It was so costly a unit, the buyers ended up charging anyone who wished to play twenty five cents. This would go on to be the standard cost for the video arcade machines that would follow. (Kent)

At this point video games were not that popular, being that there were so few PDP-1's to run *Spacewar!* This would all change with the introduction of arcade machines, and the infamous game *Pong*. Released as an arcade game in 1972, *Pong* was by far the first popular game. Previously, in 1971, there had been *Computer Space*, but it was too complicated for simply anyone to walk up and play, and thus it could not enjoy the sort of popularity that *Pong* did. *Computer Space* was of course one of several *Spacewar!* clones that developed over the years. From 1972 to 1990, there was an explosion in the video game industry. All over the country arcade machines and video arcades had cropped up. Seeing the wild popularity of these gaming machines, companies began to make what we would call consoles, home gaming machines. Literally dozens of consoles flooded the market, including such famous consoles as the Atari 2600 in 1977, the Nintendo Entertainment System and the Sega Master System both in 1986, as well as the Nintendo Game Boy in 1989. By the early 90s, the arcade scene had significantly faded away, and the home console market had taken everyone by storm. The Sega Genesis and Nintendo's Super Nintendo controlling the better parts of the market, it had really come down to the games that you could play with the consoles. Until 1995, and the release of both Sony's Playstation and Sega's Saturn, the focus was on game development. As the market evolved, the machines became more complicated, the move from 8-bit to 16-bit pushed the demand for powerful consoles and also for better looking games. Once the Playstation and Saturn were released, it became clear that game development was in need of more than just simply programmers. Demand for better graphics demanded bigger development teams, and more job specialization. In today's world, game developers work as a number of different teams to create the wonderfully

complicated and beautiful games like *Bioshock.* A lot of these new technologies, like in the past, came from Japan. Anything coming out of Japan no doubt hits the West Coast before the East, and that is why there is such concentration of technology-related businesses there. I'm sure they saw Sega's *Periscope* long before anyone in Boston did. Despite that sort of geographical hotspot for technology, Boston has risen to be an impressive game development. (Kent, Fleming, Wikipedia)

Boston area game companies

Considering that the history of video games was rich in Massachusetts, it comes to no surprise that there are several game companies here now, flourishing. Based on a list from boston.com on Massachusetts game companies, the following are descriptions on Boston area companies that are around today. In order to understand how these companies came to be, a company history is provided when it was available. In addition to the history, there are mentioned the games developed by the companies, as well as what they are working on now. This not only lets us know what exactly is available for employers in Massachusetts, but also helps us see how the state played a role in the game industry historically, and how they are contributing to it today. Of course there are always going to be new companies arising, but to keep the included companies relevant to the project, most companies included are active now. There are several more companies, I am sure, that have contributed to the history of the industry here in Massachusetts, but those now defunct companies unfortunately cannot be easily contacted to make donations to the archives.

Infocom

Founded at MIT in 1979, Infocom was the kind of interactive fiction titles. They were responsible for the very well known *Zork* series of games, as well as the *Planetfall* series. Using virtual machine technology, these games were able to be used one many different platforms, including the Apple II, Atari 800, IBM PC, Commodore 64, among others. By the mid 80's Infocom had acquired much attention from game developer giant Activision, who eventually bought the company in 1986. They only lasted 3 years under Activision, and were eventually shut down in 1989. Infocom was a precursor to many game companies here in Massachusetts, and with such classic games as *Zork*, I'm sure they put Boston on the map in the game development world. (Neurath, Wikipedia)

Creat Studios

One of the first major gaming companies to be established in Massachusetts, Creat Studios, was founded in 1990. Now official developers for PSP, PS3, Wii, DS and Xbox360, Creat Studios has developed a handful of games with its 100 member team. The two main teams are located in Boston, MA and St. Petersburg, Russia. Currently they are working on a new Nintendo DS title, *Tony Hawk's: Motion*, which is pegged for a release in the fall of 2008. What they have done with this game is taken the old and somewhat drawn out franchise of the Tony Hawk games, and added a new twist. Introducing snowboarding, and making it look good next to skate boarding, which is the main focus of the game, is a challenge that Creat was not intimidated by. Before this game, they had developed a number of titles, their first being *Biker Mice from Mars* in 2006. This game was based on a TV series of the same name, and was a blend of racing

around on bikes, and brawling in the streets. More recently they released *Coded Arms 2: Contagion* in 2007 for the PSP. This first person shooter is in a completely different direction from their first release, but Creat took on that challenge without a problem. They seem to have no qualms about certain genres, but simply take a project and develop it with success, regardless of what type. (Creat Studios)

Imaginengine

Founded in 1994, Imaginengine was a part of Backbone Entertainment. In 2005, Backbone Entertainment and The Collective merged to form Foundation 9 Entertainment. Focusing on casual and online games, their aim is to create games for kids and adults for laid back enjoyment. As far as games go, Imaginengine's collection is expansive. Available from them currently are more than 26 different titles ranging from *Care Bears: Catch a Star* to *LOTR: Return of the King*. They create games on a multitude of platforms like GBA, Mobile, PC, PS1, and PS2. With partnerships with companies like Disney and Nickelodeon, Imaginengine has been creating software titles for children that both entertains and teaches. Titles from this company have been released since 2001, when they released *JAMDAT Football* on the mobile cell phone platform. Dragonfly Game Design, actually established in 2003 by WPI students, joined the Imaginengine team beginning on January 1, 2008. Like a lot of these Boston based studios, Imaginengine does not focus on a particular genre. The themes of most of the games are educational, but they teach in different ways. As a company the focus has not shifted, even after the parent company merged with another. They work with many different commercial customers. They develop many games based on television shows, the most recent being

Are You Smarter Than a 5th Grader? Make the Grade! The Dore the Explorer show also

has a number of corresponding games. This company really has a sharp focus on casual

games and games for kids. With their commercial relationships they show no sign of

slowing down, and they have a growing number of games in their portfolio already.

(Imaginengine)

Turbine

Turbine creates massively multiplayer online (MMO) games, and maintains the

persistent worlds associated with them. Jon Monsarrat, Jeremy Gaffney, Kevin Langevin,

and Timothy Miller founded the company in 1994. Now employing 225 people, Turbine

has become the largest privately owned online gaming studio. Jon Mansarrat, like many

other pioneers in the video game world, attended MIT. Part of an improve theater group,

Mansarrat was inspired to create a sort of place where hundreds, if not thousands or

people could connect and role-play. This was not just a Multi-user dungeon, but instead a

massive meeting ground, this could become the MMO. After having programmed the

graphical engine, Mansarrat and his team put together a demo. In 1996 they moved from

Providence to their current home in Westwood.

Persistent world games used to appeal only to what would be called a niche

crowd, but their popularity is ever increasing. Turbine is responsible for the second most

popular MMO, *Lord of the Rings: Shadows of Angmar*, which was released in April of

2007. This is no small feat considering the kinds of numbers *World of Warcraft* has in

their user base. Their first major project, done with Microsoft, was *Asheron's Call* in

1999. Before releasing the Lord of the Rings game, which is easily their most successful

game, they had released *Dungeons and Dragons Online: Stormreach* in February of 2006. After their wild success with the Dungeons and Dragons game, they knew what it took to make even more improvements, and proved that they know what they are doing with *Lord of the Rings: Shadows of Angmar.* Currently they manage three persistent worlds; *Asheron's Call*, *LOTR*, and *Dungeons and Dragons Online.* Beyond managing each of these worlds, Turbine will no doubt have a good deal of projects in the future. I think the MMO market could use some innovations, and if any company is going to do that, it is Turbine. (Turbine, Inc.)

Harmonix

Ever played the game *Rock Band*? No? How about *Guitar Hero*? If you have not played either, chances are you have heard of them. This company, specializing in music-based games, was founded in 1995, by two people that met at where the first interactive game came from, MIT. Alex Rigopulos and Eran Egozy were inspired to simply let anyone make music. *Frequency*, the first game developed by Harmonix, was really a simple game, where they took skills that gamers already had, and had the players create music. *Amplitude*, their sequel to the first project, was pretty much the same game, with some more eye candy, and music from more popular artists. After these first two games, Harmonix partnered with Konami, and the outcome was the *Karaoke Revolution* games. They were fairly well known at this point, but they really exploded in terms of popularity with the introduction of *Guitar Hero* in 2005. Using a guitar-shaped controller, players played the notes on the screen as the songs played on. A fairly simple concept, but executed perfectly by Harmonix. The game enjoyed success, as did its successor, *Guitar*

Hero II, which was released a year later. Taking the same idea of specialized controllers, in 2007 Harmonix, now owned by MTV, developed *Rock Band*. In this game not only was the guitar involved, but drums and a microphone as well. Recently they have release *Rock Band 2*, and the popularity of the game is outrageous. The company's original goal has been satisfied again and again. Harmonix has brought music to people that would barely be able to strike a chord on a guitar. If they continue to churn out such successes as *Rock Band,* they will no doubt be the biggest company around. (Harmonix, Wikipedia)

38 Studios

Founded in 2006 by Red Sox pitcher Curt Shilling, 38 Studios creates games and entertainment products. Without a product released yet, 38 Studios is still a new player in the game development game in MA. With a tight knit team mentality, and a desire to make industry changing innovations, 38 Studios is planning to revolutionize the way multiplayer gaming works. Ideally, 38 Studios would finally give *World of Warcraft* (WoW) a worthy opponent when it comes to MMOs. This is a huge undertaking, and would surely have a huge impact on the gaming industry if they are successful. With their appropriate "World domination through gaming" motto, that is what it is going to take to overcome the monstrosity that WoW has become. (38 Studios)

Irrational / 2K Boston

Irrational Games started out in 1997 with three former employees from Looking Glass Studios. In 2006, Take-Two Interactive bought Irrational, and renamed them 2K

Games (2K Boston). With the absolute blockbuster of *Bioshock*, 2K Boston really needs no introduction. With 45 employees, this company, based in Quincy, MA, churned out what came to be known as one of the most immersive shooters to date. That was not their only acclaimed game, however. In 1999, they finished development on *System Shock 2*, based on Looking Glass Studios' *System Shock*. Though nothing really compares to what they did with *Bioshock*, but they also developed *SWAT 4*, a tactics based shooter. *SWAT 4* was release in 2005, and an expansion pack was released the following year. Being part of such a large company, 2K Boston will certainly be developing some major titles. It will be hard to live up to what they created with *Bioshock*, but if they were to exceed that, we all have something to look forward to. (2K Boston)

Blue Fang

Located in Waltham, MA, Blue Fang is not a well known name by any means. In stark contrast to the companies ambiguity is the game it has made so famous: *Zoo Tycoon*. Selling over seven million units worldwide, *Zoo Tycoon* is nothing to sneeze at. Focused on what they call the synthetic animal team (SAT), the company has worked hard to establish an animal structure that would serve as a continuously updated foundation. Using this approach, Blue Fang has expanded their original *Zoo Tycoon* three times over three years. Likewise, they have expanded *Zoo Tycoon 2* six times over four years. Both in 2005 and 2008, they released Nintendo DS versions of *Zoo Tycoon* 1 and 2. The aim is to create such interactive animal characters that the player is truly immersed in the game. Their goal at this point is to become the industry leader is creating lifelike

animals for games. In the future, Blue Fang will be looking to develop a new animal-based series for the Nintendo DS and Wii. (Blue Fang)

Rockstar NE

Located in Andover and formerly known as Mad Doc Software, Rockstar New England was founded in 1999 by Dr. Ian Davis. In April of 2008, Rockstar Games acquired Mad Doc, and rebranded the company as Rockstar New England. Ian had an extensive background in Artificial Intelligence, and after growing up in Andover, triple majored at Dartmouth, and went on to get a PhD in Robotics and Artificial Intelligence at Carnegie Mellon. After spending some time at Activision, Ian went and established Mad Doc. With the background in AI, real time strategy games seemed like a natural path for development. Most famously Mad Doc developed the *Empire Earth* series of games, as well as some *Star Trek* games. Recently they have worked on porting *Bully: Scholarship Edition* to the Xbox 360. With a large company like Rockstar Games handling what goes one, there is no doubt that Mad Doc's core team will be responsible for some stellar games. (Rockstar)

Floodgate

Pual Neurath founded Floodgate Entertainment in 2001. Attracted by the game development community that has always been in Boston, Floodgate was founded in Cambridge. Paul's influence came from his father's work as a physics researcher at Dartmouth. As he grew older, a neighbor working for Honeywell exposed him to one of the very first home computers. When the Apple II came out, Paul picked one up and

played all the very classic games like *Zork!* That inspired him to learn to program, and decided to try and develop his own games. Previous to Floodgate, there was Blue Sky Productions, which came to be known as Looking Glass Studios. With Looking Glass, Paul and his team pushed the envelope constantly with amazingly innovative games like *System Shock, Thief,* and *Ultima Underworld*. From these intensely complex games, Floodgate took an entirely different direction and decided to work on casual games. Much less focus is spent on graphics design, and rather the focus is spent on gameplay. The first early games they developed were *Neverwinter Nights Mobile*, *Expresso Run,* and *Madden.* As it stands, they have not yet had their breakthrough game like Looking Glass had *Thief*, but it is much harder to try and achieve that sort of thing when you are developing on the mobile platform. The most successful game yet would be *Age of Empires Mobile,* which happens to be the best selling windows mobile game. It becomes difficult to get these sorts of games out on the retail market. Currently they are looking at the iPhone, and the sort of creative gameplay they could develop with it. With the sort of background Paul has had in the game industry, Floodgate will be the company to be looking for in the mobile games market. (Neurath)

Tilted Mill

Founded by Chris Beatrice, Jeff Fiske, and Peter Haffenrerffer, Tilted Mill has been creating games in Boston since 2001. Chris Beatrice, who started off as an artist, and then an art director, was not really focused on video games from the beginning. Jeff was an avid gamer, but like Chris, Peter did not really have a gaming background either. This was all before they were working for Impressions, a subsidiary of Vivendi

Universal. Impressions started off as an independent studio, and after being acquired by Vivendi, Chris, Jeff, and Peter decided to go ahead and establish Tilted Mill. Tilted Mill was established for reasons of culture and general operating practices associated with having a parent company. At the beginning Chris was the general manager, Jeff was the designer, and Peter was the financial guy. Part of the reason for being in Boston, at least from Chris's standpoint, would be the largely untapped talent pool, and the "'diamonds in the rough' … without all the ego." Starting with just the three of them, no money, and an idea for their first game, *Children of the Nile*, Tilted Mill was in the same boat as many other starting companies. With the right connections, they were able to license some technologies from other companies for generous terms, and once they had a little money, they team added 4 more people. They kept the contemplating partners, like Microsoft, interested, and eventually turned out their first game: *Immortal Cities: Children of the Nile*. As a company, they are very proud of *Immortal Cities*, and also *Hinterland*. These two games also happen to be the only two games completely conceived and steered by Tilted Mill. As for the future, they have recently shifted focus to smaller, self-funded, and self-published independent titles. (Beatrice)

Demiurge

Demiurge was founded in 2002 by three Carnegie Melon students. Albert Reed, the principle founder, joined forces with two college friends, Chris Linder and Tom Lin, to found Demiurge Studios. The three co-founders spearhead three different departments of development. Reed is the studio director, Linder the lead engineer, and Lin is the creative director. Reed grew up in Boston, and his interest in video games came from his

childhood with them. The company, however, was actually founded in Philidelphia. As three recent graduates, the young company started with nothing, except their demo. They shopped the demo around in need of funding. Beyond a small web games for a local company in Pittsburg, their first project was actually with Epic Games, working on tools programming and documentation. After growing to a team of six from the original three, in 2004 Demiurge decided to move to Cambridge in search of a more robust talent pool. Since then the company has shown no signs of slowing down, and at 35 employees, Demiurge has completed work for a number of blockbuster games. Topping the list is their most recent project, of which co-founder Reed says they are most proud, where they ported the popular Xbox 360 game Mass Effect to the PC platform. In addition to that, they have worked to develop Brothers in Arms: Double Time for the Wii, Titan Quest, Advent Rising, America's Army, Medal of Honor: Airborne, and others. They also did work for the game Bioshock, of which a lot of work was done in 2K Games Boston studio. Reed reported projects in the works, and at the time of this writing, Demiurge has not made any announcements. (Reed)

West Coast Comparison

As I mentioned before, a good number of people, including myself at one point, believed that the only place to go to work in game development was the West Coast. Not only was this assumed because everything that comes out of Japan hits the West Coast first, but again, that is where the famed "Silicon Valley" is as well. The most well known meeting of developers, the Game Developers Conference (GDC), was started in San Jose, California in 1987. The GDC serves as the meeting place for all major developers, and it

even hosts the International Game Developers Association meetings. Having such a hub of activity located on the west coast, it allows companies to thrive there. Now with, according to Boston Post Mortem, fifty three different game development companies in Boston, one can only hope to attract enough attention to allow us to host such an event. (Wikipedia, Boston Post Mortem)

The game development scene in the Boston area most clearly started with the emergence of Creat studios in 1990. On the other side of the country, there had been some intense activity long before that. By 1990, California had numerous big game companies, while Boston had Infocom, which just went defunct in 1989. Over on the West Coast, around the same time Infocom was founded, Activision emerged in Santa Monica, California. Activision would actually go on to buy Infocom seven years after they were founded, and put Infocom to rest three years later. Activision is of course still a giant today, though mostly for publishing and not developing. Back in the early 80's, they release a number of games, including *Fishing Derby, Freeway, Skiing, Ice Hockey,* and *Stampede*. All of these titles were released in 1981, and several were developed by Activision's own David Crane. Another giant developer/publisher to come out of California around this time would have to be Electronic Arts. Established in 1982, Electronic Arts began publishing several titles starting in 1983 with *Pinball Construction Set*, *Archon*, *M.U.L.E.*, and *One on One: Dr. J vs. Larry Bird*. In 1987 their first internally developed title, *Skate or Die!* hit the shelves. According to MobyGames.com, an online game information database, to date Electronic Arts is credited with over an astounding 1000 games, and Activision with over 550. With numbers like these, both

Activision and Electronic Arts made California the place to be for game development in the early 80's. (MobyGames, Activision.com, EA.com)

All this happened long before game development took off in Boston. Even through the early nineties, there were few companies around Massachusetts when compared to California. Some of the companies from the West are household names for gamers of the last few generations. Maxis was founded in 1987, responsible for the insanely popular *Sim City* series. LucasArts, who would give us *Day of the Tentacle* in 1993, was established in 1982. Blizzard, who arguably owns the real-time strategy genre, was founded in 1991, and are the ones behind the genius in *Starcraft*, and also the monstrously popular *World of Warcraft*. Epic Games, yet another huge company, was founded in 1991. They are responsible for not only the *Unreal* series of games, but also the Unreal Engine, used in a multitude of popular games. With so many huge companies developing and publishing blockbuster games, it is hard to see why someone would make the move over to the East coast to work on video games. Local company Turbine actually has plans to open another office in Redwood City, CA because of the large talent pool there. (Wikipedia)

In terms of sheer population, it makes sense that these companies flourish on the West Coast. The population of Massachusetts is a mere 6.4 million, whereas in California there are around 36.5 million (estimated 2007). It seems that video games first started to appear around here, but ultimately the game development industry flourished in California before Massachusetts companies really made a name for themselves. There are many more companies in the West, but game developers never left us on the East coast. Many of the Boston area companies have shown that they have the skills to grow and

continue to produce remarkable games. One such example would be *Bioshock*, developed by Irrational Games (2K Boston), which sold over 490,000 copies in August of 2007. That was only including the Xbox 360 version. By June, 2008, it was reported by a Eurogamer interview with NVidia's Roy Taylor that over one million copies had been shipped for the PC alone. Hopefully over the next few years more and more companies will be headed this way, and maybe some West Coast companies may look here to expand their studios. (Fahey, Wikipedia)

Methods Applied

Before I began, I felt I had a strong grasp on video games and their history. As I have mentioned earlier, I was previously unaware before a few years ago that there was such a presence of game developers here in Boston. In recent years, with companies like 2K Boston working on games like *Bioshock* it started to become more obvious to me that there were opportunities locally for game developing. There was even an article in my local newspaper about someone who was involved with the artistic team at 2K Games. After that, I became more interested in local companies, and started to see just how many game companies there were around here.

When I began my research, I made another discovery that I had previously overlooked. With local colleges like MIT churning out computer science students all the time, there was lots of opportunity for game developing. After all, in the early stages of making games all that was necessary was a single programmer. I really just had not previously had made that connection between MIT and game developing. So when I began my research, I knew there would be some rich history here in Massachusetts.

Using Kant's *The Ultimate History of Video Games,* I was able to compile information about the history of the video game industry as a whole, giving me a solid base to build upon. That overall history was not my focus, however, and most research was finding the game companies and extracting information from them. In this age of information I did not expect much information to be found as print. For the most part the only documentation available was online sources, mainly the companies own websites. Several provided some sort of background information on the company, but the majority did not. Thankfully, there are several websites that contained valuable information on the companies. Wikipedia included useful information, but sometimes even that was not reliable. In order to overcome this obstacle, I contacted every company included in this project with an email requesting any information at all (See Appendix A).

Eventually, after accumulating contacts with the companies, a proposal was mailed out via snail mail requesting any sort of materials for use here at WPI for the archive (Appendix B). The proposal was purposely concise, given that these companies surely have better things to do. Thus far we have not received anything, but we remain hopeful as we are sure these companies receive a large amount of mail. The company's first priority is probably not to go donate their games and merchandise, but it is a common thing for these types of companies to do, and with the size of the companies contacted we should have good luck.

Successes and Failures

In terms of collecting information from companies, I set out by first contacting each through their websites. A few companies responded after several days, but some did

not respond at all. One interview was actually conducted via email, which worked out very well. My point in inquiring about historical information was to get an idea of where the companies came from. I also set up a few phone interviews via email, and talked at length with company presidents, who were often the primary founders. Beyond information listed directly on their website, several articles gave me information, as well as Wikipedia. Some companies, like Blue Fang Games, were very hard to get information on, and their website was really the only resource available. In retrospect, I believe calling the companies first is the best way to get information quickly. After making phone calls, it was easier to get to someone that could help me, rather than be brushed off by the company as a mere inquisitive student. Care was taken with the original email sent out to the companies, and this communication can be found at the end of the document.

Beyond the local companies, I used not only certain company websites, but also Steven Kent's "The Ultimate History of Video Games." Using these resources helped me gather a lot of information on the large West coast companies. I would say that Kent's book was a phenomenal resource for lots of information. I used the book for all parts of the project, but primarily for information on West coast companies and the general history of video games. This was the only real printed resource I found useful for the project. It would have been nice to have some text to read through for information beyond this book, but as mentioned earlier, it is hard to come by.

There are a few disadvantages that go along with a project like this. First, there is the fact that we are really at the mercy of the companies. It can be hard in the state the economy is in right now to be generous. This also makes the wait for a response rather agonizing. If nothing is received in this first attempt to get this archive established, it

would be very disappointing given the work put into it. Also, it is tough to get a hold of people sometimes, whether via email, or over the phone, the few times I actually made contact with people resulted in a lot of useful information.

Suggestions

I would definitely leave the next people in this sort of project several tips. The first would be to be consistent. I had several emails and phone calls ignored, even though I had mentioned WPI's IMGD program and such. After several attempts at contact were made I would eventually get through to people. Also, do not make any assumptions about certain companies, I spoke with the founder of Floodgate for a long time about how he got into video games, and he actually said he enjoyed talking to me about everything. So try not to assume that these people are not interested in helping you, it is just a matter of getting to the right people. Phone calls also work better than email generally, and surely better than regular mail. On several occasions I got the direct emails of proper contacts to get the information I needed.

In terms of research, the internet is great, but if you are anything like me, I like to have a book in hand to do research. I had a tough time finding books specifically on the game industry on the East Coast. There are plenty about history, but many books will tell you the same tale and same events. Online articles were also useful, I read many of them, some more useful than others, and they are usually in print somewhere as well. One email response from a company actually mentioned that they had employees working to set up a Wiki site. So if information is hard to find, just make sure the source is legitimate and Wikipedia can be useful.

Something else a new project could tackle would be simply to develop company profiles for each company. If we organize a collection of information about where they stand in the industry, games they have worked on, and what we have received from them, it will add a level of organization to the archives that will make it easier to maintain, and also easier to expand. For example, if we had this collection established, and I pick up a company's card and see that we have not had contact with them in a year, and they have released new game, I could make contact with them and quite possibly add another item or two to the collection.

I think the best method for expanding the archives is what was mentioned earlier. That is, for the project to focus on a few companies at a time. This way, they should get to know the company's contacts much better. The only people I really made a solid connection were Reed and Neurath, who I spoke with on the telephone with at length. Being able to make this sort of contact with the companies should allow us develop a relationship with them, and increase the chance of receiving materials for the archive.

Another suggestion would be just the opposite. No previous contact made, but a well formed proposal sent to a multitude of companies. Though the effectiveness of this could be low, it leaves a small chance that several companies would respond. The proposal for this project was not developed as far as this suggested proposal would be, simply because I had made contact with many of companies previously.

Mentioning right away that the point of contacting the company is to solicit materials for a collection may also result in a better response. The first contact made with the companies was simply for historical information, and then the proposal was delivered. Perhaps just saying outright that we were a college looking for materials to collect for an

archive would have been more effective. Most likely, however, it would have resulted in companies just brushing the project off. This is why I establish to the companies that I had a legitimate college project that I was working on before ever asking for donations to the archives. There is the chance that some companies may have felt "tricked" by this method, and also some other companies may have felt abandoned, as they did not receive a personalized proposal specifically for them.

The difficulty of beginning something from scratch is that the methods used are untested, and sometimes yield results you were not anticipating. This project at the least has created a backbone for the separate companies and their background information. This information should be expanded, and used to build separate company profiles, and also to maybe form company-specific proposals asking for specific items, or documentation on specific games. There are a number of things that the next project could try, and experiment with to see if they produce more desirable results.

The only thing that cannot be done is abandoning the archive. If there is no one to maintain it, than it will not grow, will not be a usable resource, and will not bolster the interest of future students to go work on it. This project has laid the foundation on something new, and without the help of future students, it will not be able to grow. Any number of the suggested methods could be combined to create a successful project. So for my final suggestion, I would suggest we maintain this collection, and as time goes on, and it grows, it gets more fun.

<u>Timeline</u>

1941-1943

William Hingbotham works at MIT before inventing Tennis for Two in 1958

1958

Hingbotham uses and oscilloscope to emulate tennis, he calls it Tennis for Two

1961

The first "interactive" game appears at MIT, Spacewar!

1966

Sega releases *Periscope* in Japan. When it makes it to the states, the game costs one quarter to play, establishing the standard for arcade machines

1971

The first video arcade machine arises, *Computer Space*, much like *Spacewar!*, sans the costly PDP-1

1972

Pong is released by Atari, the simplicity allows it to become wildly popular. The game is essentially *Tennis for Two*, glorified

1972-1989

A number of well known companies emerge, and the concept of a home video game system becomes a reality. Including the Sega SG-1000 (Japan), the Telstar, the Atari 2600, 5200, 7800, the Bally Professional Arcade System, the Nintendo entertainment system (Famicom in Japan), the Intellivision, among others

1972

Magnavox releases the Odyssey, the first home video game console

1979

Infocom founded in Cambridge by MIT grads, and lasts for 10 years. Responsible for infamous Zork text adventures

1985

The Nintendo Entertainment System is released, previously the Famicom of Japan

1990

Creat Studios is Founded in Boston

1994

Imaginengine is founded as part of Foundation 9 Entertainment and focuses on children's games

Turbine Inc. founded and begins working on MMO's

Sony Playstation is released

1995

Harmonix is founded in Cabridge, eventually they will release the Guitar Hero and Rock Band games

1998

Blue Fang Games established in Waltham, stays under the radar working on virtual synthetic animals, releases Zoo Tycoon with Microsoft

1999

Mad Doc Software begins its run, will last nine years before being bought by Rockstar

2000

Floodgate Entertainment is established in Boston and Waltham, mostly from the defunct Looking Glass Studios

2002

Tilted Mill Entertainment is founded in Framingham, focus of strategy games, city builders

Demiurge is established in Cabridge, as independents, they will do work for many different companies and games

2003

Dragonfly Game Design is established by former WPI Students, eventually will merge with Imaginengine in 2008

2006

Nintendo Wii is released, and introduces a new family-oriented style to gaming

Appendix A (General email)

Email sent –

Some information was added for specific companies, this specific email was for

Floodgate, with whom I eventually spoke to the president for about 40 minutes.

> I was just wondering if you had/have documents that touched upon your company history. I've found a good deal of helpful information on the site about current development, but am in search of some historical information as well. I would be interested in not only Floodgate's history, but also on Looking Glass Studios, if that is at all possible.
>
> I am putting together a research paper for a project for my school's Interactive Media and Game Development program. (http://www.wpi.edu/Academics/Majors/IMGD/) The paper will be documenting the history of the gaming industry in Massachusetts. If there are any available documents, or people who I may contact for this information, please let me know.
>
> Thank you for your consideration.
>
> ~Josh Brunelle

<u>Appendix B</u> (Proposal)

Recently I have been in contact with most of you, but for those of you I could not reach, I will introduce myself now briefly.

I am Josh Brunelle, and I am currently a senior at Worcester Polytechnic Institute. I am in the Interactive Media and Game Development program, which was introduced here at WPI in 2005. I have been putting a project together since September that has to do with video game history and game development companies in Massachusetts. I've touched upon several companies in my research paper thus far, and the point of the entire project has to do with more than simply a paper.

On behalf of the IMGD program here at WPI, I would like to sincerely ask you to make a donation to our collection of video games. This project's focus is to amass a collection of games primarily developed here in Massachusetts. I chose to do this because of the common misconception that the video game industry can only be found on the West coast. I am asking for your help to establish this collection, for use by our students and staff to use as tools.

What we would be looking for would be any of the following:

- Games or software
- Company swag (e.g. t-shirts, stickers, etc.)
- Company newsletters or reports
- Company memorabilia
- Design Documents (anything that documents the company's design work)
- Basically, we're looking for things that will document the history of any given company.

If there is any chance you would be able to donate anything that would be spectacular.

Thank you for your time and consideration,

Josh Brunelle

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