The 2016 PAX Booth for WPI

An Interactive Qualifying Project

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Abstract

The purpose of this project is to plan, design and build a booth to represent the WPI IMGD program at the Penny Arcade Expo East. We researched the past two IQP project group experiences planning the booth; designed and coordinated advertisements, banners T-shirts, buttons, and the booth layout; selected undergraduate and graduate students to present their projects at the booth. The booth was a huge success; many different students, alumni, professors, parents, and high school faculty members came to the booth to see what the WPI IMGD program had to offer.

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1. Introduction

The Penny Arcade East (PAX) is an annual gaming convention hosted in Boston, Massachusetts since the expansion to the northeast in 2010 from its original location. In 2013, WPI hosted their first booth at PAX East, to promote the Interactive Media and Game Development program to prospective students who are interested in pursuing further education in a game development. WPI has returned to PAX each year since then to promote the school and its IMGD program. The booth is manned by members of this IQP team, MQP students, graduate students, and faculty. Just like the previous years, the games that will be shown at PAX will be from different graduate projects and Major Qualifying Projects that were selected by members of this IQP team which best represent WPI and its IMGD program.

The booth was designed to fulfill important primary objectives. These objectives are:

1. **Raise awareness about the WPI IMGD program-** The high attendance at PAX East allows us to advertise the IMGD program of WPI to thousands of people every day. Having the booth at PAX gives us a chance to display the WPI brand to those in attendance. Displaying the WPI brand will generate interest in our IMGD program from a large group of people in a short amount of time.
2. **Attract students to the WPI IMGD program-** Many of the people who are present at PAX East are high school students who may be interested in enrolling into a game development program. Advertising WPI's IMGD program at PAX offers a high possibility of attracting students to be interested and ultimately apply to this program.

3. **Attract potential employers and create networking opportunities-** There are a large number of game developers who attend PAX to showcase their games. Having a booth at PAX where WPI students can showcase and demo their projects allows many networking opportunities to occur. It is important to attract game developers because it raises awareness about our IMGD program and it opens possibilities for students who are manning the booth at PAX and for future sponsorships with MQP groups.

The goal of our Interactive Qualifying Project (IQP) was to create and design a booth that is able to show off and promote the IMGD program at PAX. The challenge of this project was to design a booth that was professional to reflect the high standard expected of WPI students, and to fit in with the casual nature of PAX. To design the best booth possible, we researched what previous IQP groups have planned and built booths in the past. We consulted with different members of the WPI Marketing Department to engineer a way to create an advertisement and banner that is able to advertise the school in a professional manner and is able to keep the spirit of PAX. Additionally we worked with a student run business to design t-shirts for students and faculty to wear at PAX and another company to produce buttons based off of the T-shirt design. We selected a handful of projects to demo their games and to volunteer at PAX to represent WPI and their IMGD program.

This paper documents the different challenges, decisions, and tactics that we endured and solved during the process of creating, running, and analyzing our booth at PAX East 2016. It includes relevant background information, our methodology of the

different aspects of planning a booth for PAX, results and post-mortem of the booth at PAX East.

2. Literature Review

This year, we took into consideration the notes and recommendations of the 2014 and 2015 PAX East booth IQP's. The two projects had a number of suggestions that were very insightful to improve the quality of the booth and project moving forward. Additionally, each team reported on incidents where they believed there was an easily attainable solution to the problems that took place. We strove to implement most recommendations to the best of our ability and were for the most part successful.

2.1 2014 PAX IQP Team

The shortcomings that this group laid plain to be aware of for future years centered around in-team communication and organization. We were able to thwart a lack of in-team communication through fairly regular meetings between just the three of us. These meetings allowed us to stay on the same page and as a result work more effectively towards our goals. Furthermore, we created a backdater as a means to keep us organized. A backdater is a document outlining all the necessary tasks in order to complete a project coupled with due dates that model how many days away the task will be completed in comparison to the date of the event. This schedule permitted us to focus on the tasks, which needed to be accomplished, and keep a constant eye on where the scope of the project was headed. Using these tools, we were able to avoid a number of the pitfalls, which plagued the group from 2014.

In regards to the suggestions and recommendations put forth by the 2014 PAX IQP team, we were fairly successful in our implementation. We compounded upon the materials that the 2014 team left reusable for future projects. In particular, we

supplemented our own new button supply with those from that year's booth, and now, we have left buttons from our booth for the groups that follow. In a similar vein, we were able to print new banners that are durable, and will be relevant and useful for years to come. We were able to secure a rather large TV, and a stand as well, so we were able to display our MQP's with comparative ease, putting them up on the big screen. Lastly, we made sure to place a table near the front for the sake of handing out WPI Travel Brochures and Inquiry Forms from the Admissions office. This resulted in a very easy jumping off point for us to get someone interested in either our school or our games.

2.2 2015 PAX IQP Team

The group from last year left us with a number of recommendations and comments to carry forward into future years. We did our best to take their advice, and for the most part it paid off. We made a point to teach all of our volunteers how to play each game, and this allowed us to keep our booth running smoothly, even when the creators of the game were not in the booth.

An equally important recommendation that we took to heart was defining a clear image and purpose of the booth. We strove to make a booth that was simple and professional. We made sure to acquire two WPI banners, and had promotional materials from admissions at the front table at all times. Additionally, we asked marketing to design our banners and the advertisement for the program pamphlet. This resulted in a consistent design, and a professional appearance.

There were a few smaller suggestions to improve on the booth that we also put into effect. We bought more than enough hand sanitizer, with more than two large bottles left over. We had a small trash barrel to get rid of trash, and made sure that all of our

volunteers were at their shifts. Furthermore, we gave exhibitor passes primarily to our graduate student volunteers, who helped us set up on Thursday, and take down on Sunday. Overall, the previous year's suggestions were very useful for us, and we were glad to have them.

3. Background

In order to provide a general background of WPI, its Interactive Media and Game Development program, and the Penny Arcade Expo itself, a brief synopsis is outlined below. This information is important and relevant to anyone interested in learning or creating a booth designed to showcase a University.

3.1 About WPI

Worcester Polytechnic Institute (WPI), was established in 1865 by a group of nine individuals. John Boynton, who made his fortune from the manufacture and sale of tinware, gave the initial investment of $100,000 back in the 1860s. This is equivalent to over 2.5 millions dollars today. His donation was originally anonymous however after his death his family came forward and Boynton Hall was dedicated in his name in 1867. Ichabod Washburn, “a proprietor of the world’s largest wire mill” which manufactured pianos, crinoline and fence wire, was notable in partnering with John Boynton and bringing his dream of a vocational school for mechanics to life. Washburn shops, originally a manufacturing plant dedicated to teaching students real life skills in the shop, was named in his honor. Stephen Salisbury II, a distant relative of Ichabod Washburn and a prominent citizen at the time for the city of Worcester, was well known for donating the land on which the Worcester County Free Institute of Industrial Science (the first name of WPI back in 1868) was originally built. These three are the most well known founders of WPI, the remaining six, engineers, businessmen and philanthropists also contributed to the origins of WPI, but Boynton, Washburn, and Salisbury as regarded for their extensive contributions to WPI in its earliest years.

Between 1868 and 1970, WPI was a conventional institution for engineering and science notable for producing famous alumni such as Robert H. Goddard, the father of modern rocketry, Elwood Haynes, who aided in the invention of the automobile and creation of stainless steel, Harold Stephen Black, known for the invention of the negative feedback amplifier, and CEO's such as Paul Allaire (Xerox) and Robert Stempel (General Motors). During this time, WPI was a well-known engineering school in the region, but in 1970 the entire structure of the institution would change.

In 1970, WPI adopted its "Plan," a program with an emphasis on Project based learning. With a new motto, Leur Und Kunst (interpreted from German as Theory and Practice) WPI would change from a conventional institution to a school with a "flexible, exciting, and academically challenging program aimed at helping student learn how to learn." (WPI Plan)

The Plan continues to grow to this day. In the recent past, WPI has added a Freshman year project curriculum. The following depicts the program as it appears in the year 2016.

Freshman year, the student undertakes the Great Problems Seminar (GPS). During this seminar the student is first introduced to team based project work and thrown into a situation where they are tackling the world's problems. In this seminar, anything is fair game from establishing methods to get clean water to impoverished citizens in Namibia to designing infrastructure to support more efficient and cleaner power sources in China.

Sophomore year the student branches out to the world of humanities. Anything from electronic music composition to the history of technology in culture, students experience the other another side of education. Many students choose to incorporate their

technological knowledge and bridge the gap between technology and the humanities, while others choose to focus exclusively on the humanities portion and bring out their artistic side.

Junior year students complete their Interactive Qualifying Project (IQP), working with students from all other disciplines to complete a project start to finish. Most students do this project abroad, anywhere from Costa Rica to Russia. Many students find this experience a defining moment in their WPI career as it takes students outside the bubble which can often surround an academic environment to the real world, with all of its real problems.

Finally, in their senior year, students undertake their final task: the Major Qualifying Project (MQP). Similar to a senior capstone, the MQP is truly a defining experience in the WPI career. Students work within a team of their own or similar majors to finish a problem which can be applied in the real world. Students truly work start to finish on new and innovating ideas. (WPI Plan)

WPI strives to produce technical humanists, who not only know their own field, but also know about the world around them and are ready to impact and change it.

3.2 About IMGD

"Students who choose to study Interactive Media & Game Development (IMGD) at WPI learn in an environment that fosters a deep appreciation of both the artistic and technical aspects of IMGD--while focusing on developing in-depth skills in either the artistic or technical domain." (WPI Website)

The IMGD program was created to allow students with an interest in interactive media and game development a chance to develop their skills under a model reflecting

the WPI plan. The program is a merger of art and technology. Students learn how to work in teams in developing games and are granted many opportunities to show their creativity when solving problems.

IMGD students follow the typical student's WPI track, with a major project in each of their four years. (See 3.1) IMGD students complete their MQP by developing a professional game which some students go on to take commercially after graduation. At PAX East, several games developed by students at WPI, at both undergraduate and graduate levels, are showcased in the WPI booth. (See 4.5.1)

The IMGD program houses over twenty faculty, three of which are full time professors of Practice, giving students mentors who have real world experience outside of academia. The average salary of a game developer graduating from WPI is $60,000 per year and over 90% of IMGD students have job offers at the time of commencement from companies such as Blizzard, Riot, Microsoft and Harmonix. (WPI website)

There are two typical tracks that IMGD students take in their undergraduate career. In the artistic track, students develop skills in two and three dimensional digital art. Courses in this track focus on conceptual art as well as animation and level design. In the technical track, students focus more on the underlying fundamentals of designing games. Students in this track focus on programming and computer science skills necessary in developing professional games. The key aspect of the IMGD program is the intermingling of the two tracks described above. Students with a focus in art are required to take technical related courses including those in the computer science department. Likewise, students with a focus in technology are required to take artistic and design courses in the Humanities Department. Overall, students within either focus develop

skills in each track and become well-rounded game developers. All of which accomplishes the goals set out in the WPI Plan.

3.3 About PAX

PAX began when *Penny Arcade*, a webcomic focused on video games and the respective culture surrounding them, announced a new event called the Penny Arcade Expo (PAX) on April 12th, 2004. The creators of PAX, Jerry Holkins and Mike Krahulik (authors for the *Penny Arcade* webcomic) established the idea to satisfy a desire to host an expo exclusively for gaming. Previously, expo's such as ComiCcon contained some booths dedicated to gaming, but were much more diverse. This is where PAX was born.

The expo grew over the next six years to become iconic. While those on the west coast were satisfied, Holkins and Krahulik saw a need to expand to provide accessibility for those on the east coast. This is where PAX East comes in. In 2010, PAX East was held in the John B. Hynes Veterans Memorial Convention Center in Boston, Massachusetts later moving to the Boston Convention and Exhibition center where it has been held there annually thereon.

Many local educational institutions, including WPI, have noticed a marketability for their respective institutions at the conference. Besides WPI, Becker College, Champlain College, Digipen Institute of Technology, and Elms College all reserve booths to attract students coming to the expo. What makes PAX unique is its focus on gaming and the culture surrounding gaming. The expo attracts students interested in playing and developing such games, and, perhaps, making it into a career. Where participants see PAX as a place where they can learn, play, and demo new and interesting games, these institutions see PAX as a place where they can find prospective students.

4. Methodology

4.1 Information Gathering

Our first term was mainly dedicated to gathering the necessary information about PAX to begin our booth design and logistical planning. We consulted the previous year's group directly, asking questions and gathering information that was expanded from the findings in their paper. After that the team consulted with outside departments including both Marketing and Admissions departments of WPI. Finally, we consulted with external organizations to cheaply purchase T-shirts and buttons in order to stay within our limited budget.

4.1.1 Talks with WPI Marketing

A large emphasis of the project this year was an increase in communication with the WPI Marketing department. A large emphasis of our project was concerned with the idea of professionalism in the booth and a dedication to utilizing the WPI brand throughout the entire process. The team made sure to include a Marketing representative in all of our communication and meetings because no one knows our brand and image better than the WPI Marketing department.

Our contact representative from Marketing was Jillian Ferguson. We invited Jillian to all of our weekly meetings and added her to our contact mailing list to consistently keep her in the loop on everything that went on behind the scenes.

Jillian was instrumental in helping to create designs for both the full-page advertisement published in the PAX pamphlet and the Marketing banners. (See 4.3 and

4.6) Jillian was also helpful in obtaining two Marketing banners used in our booth setup. The first was used to cover the front table in our booth design. The second was a hanging banner, which originally was not in our design, but was offered to us from Marketing. (See 8.4)

Figure 1: WPI Banner Logo

4.1.2 Talks with WPI Admissions

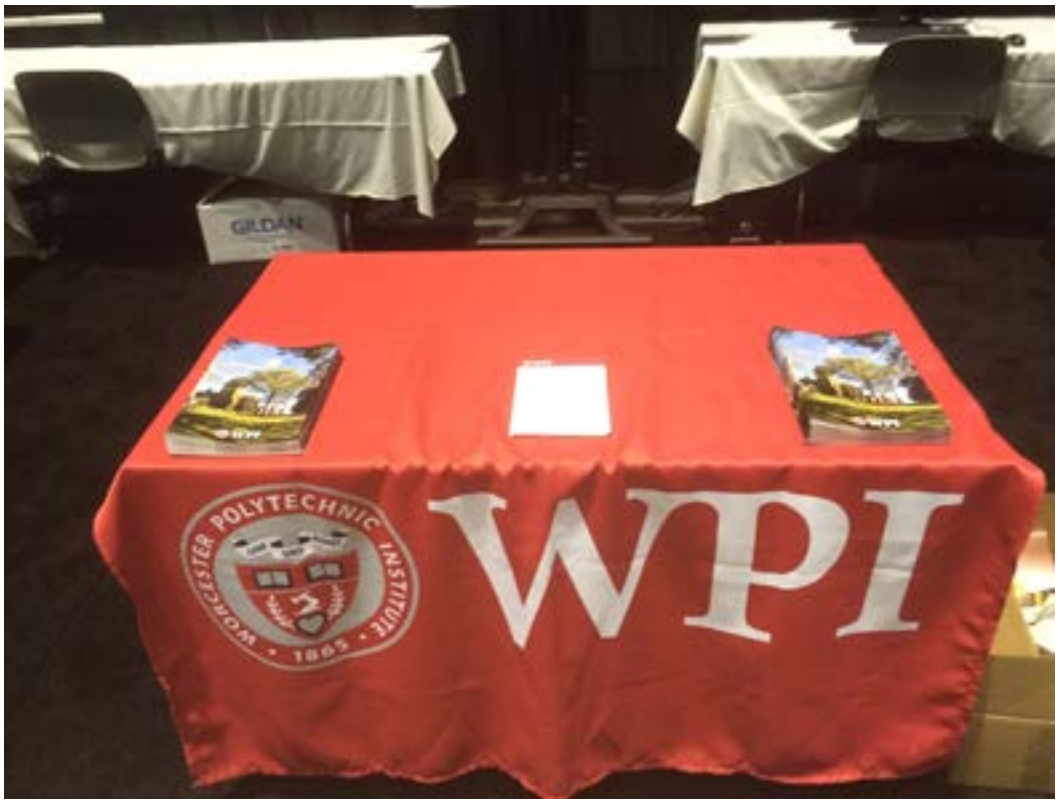
In conjunction with an increase in efforts in communication with Marketing, the team also led discussions with the Admissions department. One of the team members set up a meeting with Sue Sontegrath in C term to discuss how the team could better represent WPI as a whole during the PAX conference beyond its commitment to showcase the IMGD program.

During this meeting Sue Sontegrath brought up the idea of sending an Admissions intern to the booth to bring a representative from Admissions. The Admissions department would put PAX on their calendar and treat the expo like a college fair. An intern would be able to talk about WPI in general and answer questions about the school that members of the team and volunteers would not. Additionally, having an intern present for the entirety of the day throughout the expo would free up spots on the volunteer selection schedule so that no one on the team would have to spend more than

two hours a day in the booth beyond setup and breakdown. In order to have the intern present at the booth during the times requested, the team would need to buy an additional exhibitor pass for the intern an additional $120 fee and the intern would most likely not be able to help during the initial setup and final breakdown of the booth on Thursday and Sunday. The team decided to go without an intern representative, but the option remains relevant for the future. Admissions also offered to train the team in how to speak to prospective students much like they do with Crimson Key tour guides. The team never followed up on this offer, but the team does recommend it for future years.

After the meeting, Admissions gave many materials with general information about WPI for prospective students and parents. The team set these out on the main table and gave them out to those curious about WPI and interested in learning more about the school. Admissions also gave interest forms that students and parents could fill out with their name and email in order to be put on a mailing list to receive more information about WPI periodically. We handed out a total of 25 of these interest forms. These materials were essential in developing a professional atmosphere and the team encourages future teams to communicate with Admissions and to involve them more in the process.

Figure 2: Admissions Materials



4.2 Booth Design

Our design was heavily influenced by our desire to showcase the student projects in as organized and open manner as possible.

This year, we received $2,000 less than the previous year had in their budget. As a result, we purchased a smaller booth, 10 x 20 ft as opposed to the 10 x 30 ft booth from last year. This gave us a few design challenges. Firstly, we had to allocate space for the comparatively large arcade cabinet, which would take up around 10% of the booth's floor area alone. We felt as though the arcade cabinet was a good method to attract passersby, because of its uniqueness. After a few weeks of discussion, we finally settled on

removing the arcade cabinet from the booth entirely, as this solved two problems. The most prominent issue being the space allocated for the arcade cabinet, with the second being the reliability of the cabinet. Since the last PAX, the arcade cabinet had gone through varying stages of usability, from working to broken. With this uncertainty concerning the operation of the arcade cabinet in mind, we decided the best course of action for the booth as a whole was to remove the arcade cabinet from our planned layout. These differences are easily noted in our floor plans of the booth.cc

Professionalism was a key aspect, which the team thought extensively about when designing the booth. The key to a successful campaign at PAX was utilizing our brand and appearing as professional and put together as would be expected from an event presented with the WPI name. We emphasized several main points, particularly our conduct within the booth and amongst the project teams.

We held an Informational Meeting with the staff of our booth, as a way to get them all on the same page, and to inform them of what was expected. The purpose of the Informational Meeting was to ensure that each member of each project team understood what was happening during the conference, install the games which would be showcased on all of the machines being used during PAX, and to delegate a schedule of shifts to determine who would be in the booth at what times.

Additional points of professionalism included our branded T-shirts. Designing these T-Shirts was important to us so that we could control the image we were sending with the WPI name. All shirts were worn by members of the booth to distinguish us from customers and PAX attendees.

A great asset was the WPI banner that the Marketing Department allowed us to borrow throughout the weekend. The banner helped make clear who we were and whom we were marketing to: those interested in a WPI education. Many of our improvements upon the professionalism of our booth stemmed from our increased interaction with Marketing and Admissions compared to the past few years.

The projects that were selected to be displayed at PAX were a key component on the design of the booth. The different projects that were selected had an influence on different aspects of the booth like spacing, volunteering, and the amount of materials and infrastructure that was needed to be present at the booth because of the different displays that were necessary to showcase their projects. Four projects were selected in total that were using two different types of gaming displays at this year's booth. The two different type of gaming displays that were used for these projects were traditional games that can be displayed on a computer monitor or television and Virtual Reality (VR) games that can be displayed on the Oculus Rift Headset.

It was determined that three games using a traditional display would be displayed the entire time at PAX and the VR game would be as well. This meant that 4 games were always demoed during the duration of PAX, this allowed less space to be used to demo the games and this made the booth feel more open and organized. Using only 4 games at a time also reduced the amount of volunteers necessary to be at the booth, which reduced the cost of passes and allows more money to be allocated to different aspect of the booth.

A TV monitor on a TV stand was used to show the games being demoed to people who were on the demo floor that were passing by the booth. The three projects that used a traditional display were alternated between on the TV monitor. Using the TV monitor

allowed the projects to be displayed to a wider audience instead of just being shown to people who were playing the game. The TV monitor also attracted more people to the booth, which allowed us more opportunities to advertise WPI.

4.3 Advertisement

If the team is to be successful in marketing and showcasing the IMGD program, then advertising is key. No matter how great the IMGD program at WPI may be, if prospective students are unaware of it, then the program will fail. The team employed a variety of methods of advertisement at PAX both to draw people to the booth and to advertise the program itself. Along with a typical full page ad in the program booklet, the team developed T-shirts and buttons to create an army of walking advertisements for the program. Along with physical advertisement, we continuously used the IMGD twitter account throughout PAX to publicize our booth on social media.

4.3.1 Program Advertisement

The most critical point of advertisement the team made was the full page advertisement published within the PAX pamphlet handed out to the thousands of participants throughout the three day conference. In past years, requests for design submissions to be added in the ad were sent out campus wide. But, the received submissions typically were not of the highest quality or what teams were looking for in an ad showcasing the IMGD program or WPI in general. Continuing on our efforts to emphasize professionalism and utilizing the WPI brand, we delegating the ad design to the WPI Marketing department and in particular our point of contact, Jillian Ferguson.

The design that Marketing produced were used both in the full page advertisement and in the banners purchased from allstatebanners.com. (See 4.6)

The placement of our ad was more than ideal. The advertisement was published as the third page of the entire program which the team assumes led to a drastic increase in the amount of people who were able to see that advertisement. The advertisement was designed so that it could be used in future years to come with only slight modifications. The purchase of an advertisement was a huge investment, but was critical in ensuring that as many potential students as well as their parents were able to see WPI. The cost of the advertisement was $2100, over one quarter of the entire budget allocated for the project. (See 4.4)

There were some slight issues with our initial publication of our design. It was unclear from the materials provided by PAX who the point of contact was for ad submissions. Over the spring break, the team worked hard in making contact with PAX to ensure everything was all set with our submission. Unfortunately, the specifications of our initial submission were not quite right and the team had to work hard in coordinating a resubmission for the advertisement. Fortunately, everything worked out well, but the team recommends that submission for the ad takes place in B term so that if any errors occur, they can be quickly fix with plenty of time before the final submission deadline in February. The team also recommends that future teams make sure that a response is sent promptly indicating that the design was sent to the correct point of contact.

4.3.2 Frontiers

In previous years, many parents of middle and high school aged children have come to the WPI booth at PAX and asked about summer programs offered at WPI. The

main purpose of the booth is to promote the IMGD undergraduate program, so there has never been a real emphasis on marketing these summer programs that may not lead to a direct increase in the program.

During the meeting with Admissions, a discussion regarding Frontiers and the team's ability to market the summer programs, in particular note game development courses, offered by the school. After the discussions with Sue Sontegrath gave the team example materials with information regarding Frontiers and Launch programs.

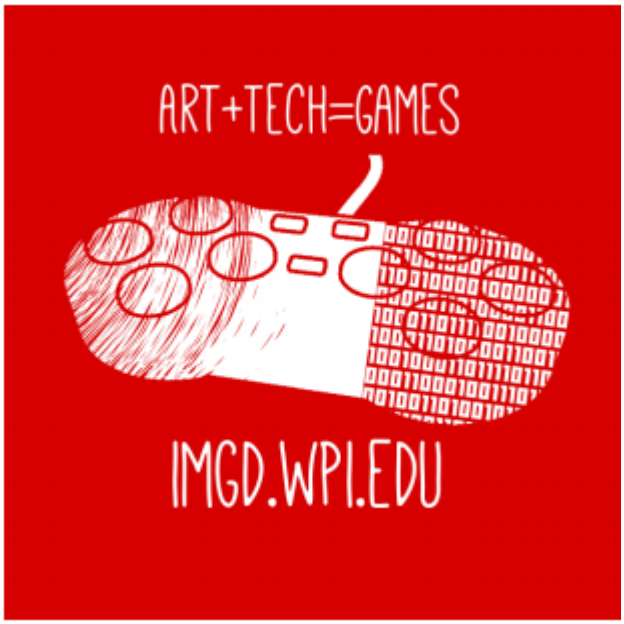
Unfortunately, the registration deadlines for summer programs ends before PAX begins, so any interested parents would have to wait until February 2017 to register their children for the summer of 2017. Due to this, the team decided not to take the Frontiers materials in order to focus on information that is relevant to students much sooner, such as general information about WPI for admissions.

When parents approached the team and asked about these programs, the team was prepared to talk about Frontiers and the opportunities it presents for prospective students. The team reiterated when the next registration deadline started (February 2017) and when it ended (Early April 2017). A clear example of this was when a young 7th grade girl who approached the booth to question the team for an essay she had to write for school. The girl was interested in Animation so the team talked with her and her parents in great detail about the variety of opportunities presented at WPI for Animation and advised her to look into the Launch and later on the Frontiers programs for Animation. The team encourages future IQP groups to find interesting ways to incorporate the Frontiers program without drawing away from the emphasis of the booth on the IMGD undergraduate program.

4.3.3 T-Shirts

Wearing T-shirts at the booth is a common way to look uniform and embody the theme that you are to present at PAX. Almost every booth at PAX will be manned by different representatives from the school or gaming company that are wearing a T-shirt to display their theme. The design below was the design of the T-shirt from last year's team:

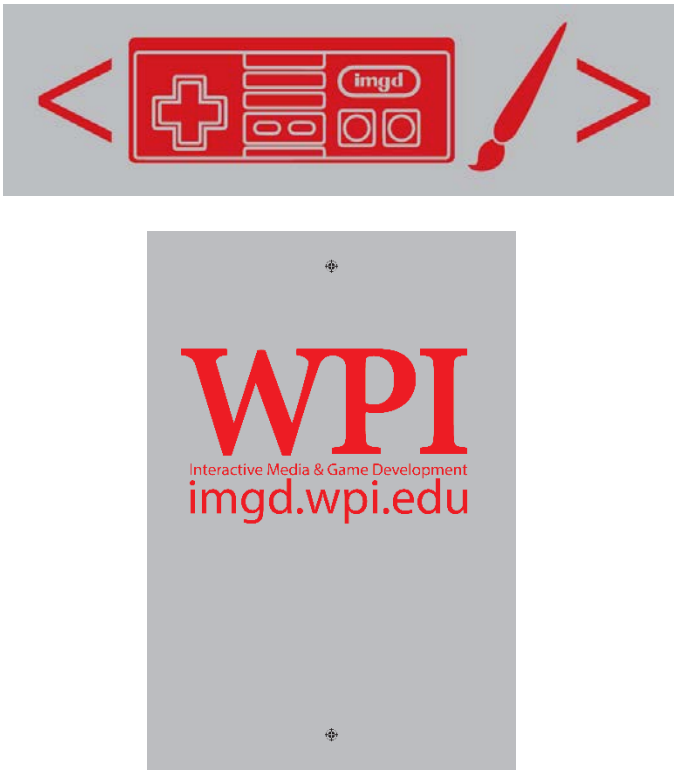
Figure 3: 2015 T-Shirt Design



The problem that last year's IQP group encountered was that their T-shirt closely resembled the t-shirts that the Enforcers on the exhibition floor would wear. Multiple people at PAX would confuse them with enforcers and would ask the representatives manning the booth questions about PAX that the enforcers would be able to answer.

To avoid that problem we decided to have gray t-shirts with a red font. We picked that pattern because gray and red are our school colors. The gray T-shirts are actually the cheapest color to print T-shirts on. The design of the front and the back of our shirt below:

Figure 4: 2016 T-shirt Design Front and Back



Our design on the front of the shirt will be a game controller next to an art brush within bracket to resemble HTML code. The design is a creative representation of ART + TECH = GAMES. This design will be different and very engaging and will help distinguish us from different groups that are going to be present at PAX.

On the back of the shirt will be the WPI logo with an updated URL to the WPI IMGD program page. The look of this design will not only be engaging but at the same time it will keep with our professional theme at PAX.

Due to the $2,000 cut in the budget, we decided to only order 25 t-shirts, this is a reduced number of shirts from last year's IQP group. 25 shirts would just be enough shirts to provide to the representatives manning the booth this year. For the students that are manning the booth for multiple days, they are being asked to either wear the same

shirt for those days or to wear a professional WPI shirt. This number of shirts will also allow for a few giveaways of t-shirts to occur at PAX.

4.3.4 Buttons

A key aspect of successful advertising and marketing of the booth fell on the buttons the team gave out during the expo. Buttons are a key drawing point for all types of audiences since PAX is known for its free giveaway items. In addition to bringing people into the booth, buttons also act as a walking marketing tool for those who wear them throughout the rest of the conference. Others should be able to look at these buttons and understand what they are in a way that is eye-catching amongst all the chaos throughout the hall.

Figure 5: Picture of a Final Printed Button

The most important aspect of buttons is the design. This year, the team took the front graphic from the T-shirt and created a button design that could be printed, cut, and constructed into several hundred buttons.

The design was well received by the community, but it lacks a few key points that are necessary in emphasizing where and how a person obtained it. First, it lacks any reference to WPI in any fashion. A person outside of the WPI community would have no way to draw a connection between the button design and the institution. This is a crucial flaw. Second, the button design does not thoroughly emphasize the IMGD program. The reference to IMGD is small and overshadowed by the game controller. Future designs should emphasize these two points much more, perhaps putting a separate line on the button specifically for this purpose.

For the past two years, teams have been creating button designs in similar manners as this year. But, they all ordered their buttons online and paid an outside vendor to construct them. Due to budgeting constraints, this year's team decided to go a separate route and make the buttons by hand using a button machine. These were much cheaper and more plentiful than the year before decreasing the cost per button from $.30 per button ($89.30 for 300 buttons) to $.22 per button ($105 for 500 buttons). Additionally, the team found that constructing them by hand and using glossed printed sheets of papers from Staples produced sharper looking buttons than ordering them online.

Unfortunately, the cost is balanced with an increase in manual labor. The team collectively put in 20 hours (between 3 individuals) to construct them. Additionally, creating them by hand lead to error, which we found in about 8% of the buttons, we created in our initial attempt.

The button machine used in the creation of these buttons was borrowed from an organization that one of the team members was a part of. Clearly, this was an unusual case as most college students do not have ready access to button machines at no cost for

rental. If future teams are interested in creating buttons similar to this year's they will need to seek alternate funding for either the rental or purchase of a button machine for use in years to come. The most recent quote for a button machine from Amazon.com was $375 as of April 2016.

Materials for constructing buttons by hand can be found on amazon or on americanbuttonmachines.com for a consistent rate of around $100/500 button materials. The team advises that these materials are ordered before D term so that future teams can have plentiful time to construct buttons if they so choose. Waiting until the week before was a major mistake as the team was already too exhausted from dealing with last minute logistical issues. Adding buttons to that workload was not ideal.

4.3.5 Social Media

This year we used exclusively the WPI IMGD Twitter account throughout the weekend. We made two types of tweets. The first of these categories were promotional tweets, these tweets promoted both the location and general hype for our booth. The second, was a giveaway tweet, we only did a handful of these tweets over the weekend, and they were primarily made on Saturday and Sunday. These tweets requested something from the people coming to the booth, either the answer to a trivia question or possession of a certain quality. Our giveaways this year for social media were our shirts, which were worn by those staffing the booth.

The three of us running the WPI IMGD Twitter had never used Twitter extensively before, and as a result, did not use hashtags on our first few tweets. As a result, we did not have as much participation as we would have liked. Additionally, the IMGD Twitter does not have an overwhelming number of followers, and we felt as

though more publication of the account at the booth itself would help to build a base of followers to bring to the booth in the future via social media.

4.3.6 All State Banners

We ordered our banners from Allstate Banners. We purchased two 32” by 72” banners with an x-frame stand. WPI Marketing designed these banners specifically to advertise the IMGD Program. Our goal with the ascetics of the banners was to create a clean and professional image for our booth, as well as display the WPI brand. Pictured below are the banners at our booth.

Figure 6: Left Allstate Banner

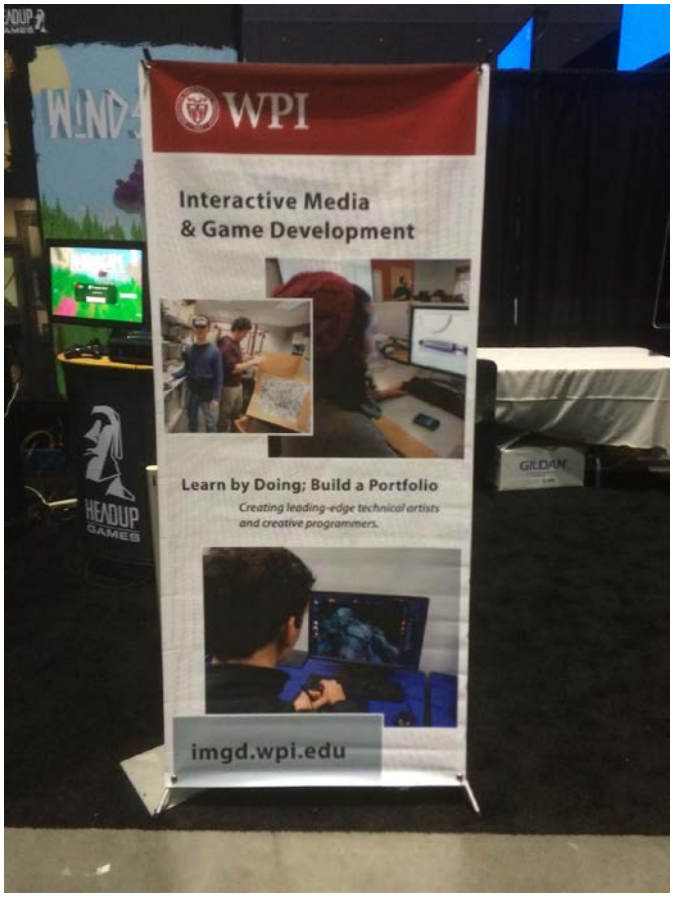


Figure 7: Right Allstate Banner

4.4 Budget

This year, we ran into an early snag with marketing concerning the budget. Last year's project had received $2,000 from marketing separate from the $8,000 of the IMGD program. In our first few meetings we were in contact with marketing to secure the $2,000 again. At first prospects looked good, but then we were informed that the reason for the extra funding last year was part of a school wide initiative to get the name of WPI

more publicized. This initiative was not carried into the new academic year, thus we did not receive the extra funding.

With this in mind, we had to change our original strategy and order a smaller booth than last year. Even with the budget cut we viewed it as absolutely essential that we purchase an advertisement to place in the PAX guide. Between these two expenses alone we had used more than half of our appropriated budget due to the sheer cost of PAX.

Since we had very little to work with for our remaining budget we had to find a way to cut costs more. Fortunately, there ended up being a few places where we were able to slim down the costs. Two places we found room were buttons and shirts. Members of our team knew owners of both a T-Shirt printing company and a button printing company. As a direct result, we were able to get the shirts and buttons for a reduced cost than the year prior. The one portion of the budget where we saved the most money was through careful planning and management of assigning passes. Through ensuring we purchased only passes that were necessary, we saved around $600 over last year's project. This gave us room in the budget to appropriate banners to place at the booth. A fully outlined budget is included below.

Table 1.1: The final budget

Item	Cost	Additional Information
Buttons	$100	est. cost for 1,000
Banners	$190.11	New Banners with new content
Shirts	$187	25 shirts from Dave

		*NOT red & white
Misc Costs	$100	Power Strips, Extension Cords, Hand sanitizer,Trash bins, replacements, water, snacks etc.
Rainy Day Fund	$265	
Postcards	$0	Get for free from marketing
Booth	$3,400	Smaller booth than last year
Advertisement	$2,100	
Table Cloths	$16	Rented from Chartwells (for 4 tables) white
Tables	$67.42	5 Rectangular Tables 2 * 8', 2 * 6', 1 * 4' (Camelot Rentals)
Passes	$1,550	
1000 Watt Box	$120	
Total:	$8,028.53	

4.5 Selection Process

4.5.1 Project Selection Process

The selection process was an important portion of this project because we had to pick MQPs and graduate projects that would best represent WPI. We wanted the projects that were selected this year to stay with the same theme of our booth, which was professionalism. Professionalism means that the projects at our booth would not just be generic styles of games. The games that will be demoed at this year's booth had to be complex thinking; be in touch with different social and economic issues that are in the world; history; or just show the different nuances that can be created in the WPI IMGD program.

The project selection process began with us discussing as a group what kinds of games we wanted to demo at PAX. We asked our advisors about what they would have liked to have seen from the games last year to understand what mistakes last year's IQP have made. We also looked over the post mortem from the past two IQPs to investigate if there were any suggestion that they have made that our advisors did not state in our meeting with them. After conducting research and consulting with our advisors we decided that we wanted to have games that were very engaging and would change the way prospective students, parents and employers looked at the WPI IMGD program for the better. One of the type of games that we wanted to have at the booth this year was a Virtual Reality(VR) game. The VR game that was demoed at the booth the year before was a great success and generated a large amount of interest during the entire duration of PAX.

An email was sent out to the undergraduate students, graduate students and faculty of the IMGD program stating the requirements to be considered for presenting their projects at PAX. The email is listed below detailing the different steps necessary to submit a game to be considered for PAX: (From project submission email)

Good Afternoon,

Our team planning this year's WPI booth for PAX East is now accepting group or individual submissions for games and projects to be displayed in the booth. Submissions need to be displayed and demonstrated at the booth in April and can be one or more of the following:

1) MQP's
2) Personal Projects
3) Graduate Theses
4) Other projects representative of the IMGD program

The projects do not need to be completed already, but they must be completed by the dates of PAX, April 22nd through 24th. With that being said, the project must have showable gameplay by the time of submission.

If you would like to submit your projects, take the following steps:

1) Upload a gameplay demo of no longer than two (2) minutes to YouTube. This demo should contain gameplay, not just a trailer, as well as someone explaining the game.
2) Send an email to paxsubmission@wpi.edu, containing the following:

a. The names of everyone involved with the project
b. The title of the game
c. The genre of the game
d. Whether or not you can commit at least one member to help operate the booth during the entire weekend of PAX East, April 22nd to 24th.

i. That is, have one person present to demonstrate the game throughout the entire expo.

e. Any other information we should know about your game

This year we are staffing the booth at PAX with members from the selected project's teams. **Therefore, if your game is selected, at minimum one (1) person from your group will need to be selected to help at PAX.** If your team cannot send at least one member for the entire weekend, your project will not be considered. *Each day of the convention, your group will be required to staff the booth for at least three hours*. Those project members who are attending PAX must also be able to attend a handful of training meetings, in order to learn the other games being showcased, so that we may present all the projects as properly as possible. These details are subject to change before a project list to be shown at PAX is finalized.

We will not be able to use the internet reliably for the games at PAX, so all submitted games must be able to be played without an internet connection. Additionally, the games must be able to run on the lab computers. If there is any other special equipment you require to play your game, such as a VR headset, you will need to be able to supply it yourself. Lastly, all projects must be submitted by ***Saturday, February 6th at 11:59 PM***.

If you have any questions at all, feel free to email them all to:

paxsubmission@wpi.edu

We will try to answer as swiftly and helpfully as possible.

Thank You and Good Luck!

Alex Dyer

KJ Haney

Matt McCarthy

The email was sent out on Monday February 1st, and groups had until February 6th at 11:59 pm to submit a project to be considered. In total 11 projects were submitted and considered to be demoed at PAX East. The following week we met as a team and with our advisor to watch and discussed the different submissions. We decided that 5 projects in total, 2 graduates projects and 3 MQPs met the required criteria. The criteria

was to showcase a diverse group of genres, show how conscious different students in the IMGD program are, and finally be a good representation of what students would be able to achieve in their time as a student in the IMGD program. The five projects that were selected were: *Wooplex, Intern Astronaut, Piper, Displaced, and Jazzy Mind.*

Jazzy Mind is a graduate project that was made for IMGD 5099: Game Design Workshop and was created by Caitlin Malone, Klew Williams, Ravi Parekh, and Yakin Najahi. *Jazzy Mind* is a film-noir inspired, murder investigation game. This game has a unique gameplay mechanic, where players can familiarize themselves with jazz and test their musical interpretation skills by interrogating suspects and interpreting their moods with musical auras. The game has 2 possible endings, either the correct murderer and murder weapon is selected and is sent to jail. The other is the either the wrong murder is accused or the murder weapon is not selected and the person you accused will be judged innocent in a court trial and the newspapers will talk about your failure. This means that your jazz interpretations were wrong and maybe you have to repeat the game and listen more carefully.

Figure 8: *Jazzy Mind* Title Screen

The next game, *Piper* is a Walkie/Interactive Cinema game that is an MQP project created by Dan Driggs,Will Frick,Jake Hawes,Derek Johnson, and Ben Korza. This game is operating on an Oculus Rift. The Piper is based off the fairytale “The Pied Piper”. As legend has it, in the 13th century the city of Hamelin was overrun with rats. Out of nowhere, a strange man referred to as the Pied Piper appeared. He agreed to solve the pest problem for a fee, to which the townsfolk agreed. With his magical pipe, he was able to lead the rats out of the city and into the nearby river. After returning to collect his pay, the townsfolk refused to uphold their end of the deal. Angered by the fact that he was cheated, the Piper returned that night and played his pipe once more. This time, however, he targeted the children of the village. As the player, you experience what it felt like to be coerced by the Pied Piper as he leads you through the fictional recreation of the medieval town of Hamelin.

Figure 9: Piper Title Screen

Another MQP that was selected to be demoed at this year's PAX EAST is a survival and stealth game call *Displaced.* *Displaced* was created by Ceren Savasan, and Stephen Long. *Displaced* deals with the controversial topic of the refugee crisis in an open-ended and non-political manner. We have decided to focus simply on the suffering and displacement of young children, and hope that this is apparent in our submission.

Figure 10: *Displaced* Title Screen

The last MQP project that was selected is called *Intern Astronaut.* *Intern Astronaut* is an immersive virtual reality game for the Gear VR and Oculus Rift that enrolls the player as an intern tasked to fly a secondhand spaceship. Sean Halloran, Kedong Ma, Shane Stenson, and Jake Hawes created *Intern Astronaut*.

Figure 11: *Intern Astronaut* Final Screen

The final game that was selected to be demoed at PAX EAST is a 2D Action/Adventure/Puzzle game called *Wooplex*. *Wooplex* is a graduate project that was created by Oleksandr Terletskyy, Ostap Hrytsyshyn, and Igor Terletskyy. You come into play as *Wooplex*, a drop of autumn rain in the world where all colors and flowers are gone. Trying to reveal what happened *Wooplex* is going to face various mysteries and challenges discovering new things about the nature around you.

Figure 12: *Wooplex* Gameplay

4.5.2 Volunteer Selection Process

Volunteer Selection was an important task that we had to complete before arriving to PAX. Like last year, all of the student volunteers at the booth worked on the project. There were also faculty volunteers that were able to assist on days that they were available. Due to PAX occurring later during the school year than previous years, it was essential to create a schedule that was accommodating to all of the student and faculty volunteers that are taking a break from the work that they have to complete to help us at PAX.

There were supposed to be 16 student volunteer this year at the booth based on the the number of students that worked on the five projects that were selected. One of the teams that we selected withdrew themselves from volunteering at our booth to work at another booth. Another student that was working on one of the projects graduated early at the end of the fall semester. This reduced the number of students that were available to assist us at the booth. Fortunately, we still had 10 students that were able to assist us at PAX, five graduates and five undergraduates. Another student was added to the booth because they were requested by a graduate student that worked on the *Wooplex* project. This student was added because of their involvement working on *Wooplex* during their thesis project. We were not aware of his involvement when this project was submitted because his name was not on the email submission.

After all of the changes that occurred in the volunteers, we had to change the schedule to accommodate them. When that one team withdrew themselves from the booth they freed up 4 passes to were originally allocated to them. The withdrawal created some issues with scheduling and the only way to solve the problem was to have

every undergraduate volunteer work the booth for one 2 hour shift every day. All of the graduate students were still receiving, exhibitor badges Since everyone that every undergraduate volunteer needed to receive a 3 day pass. Since we were only supplying exhibitor and 3 day passes we need to created more room in the budget. To accomplish this, we cut the amount of shirts that were purchased in half. Each volunteer received a free T-shirt along with a pass.

Before PAX we held an informational and a demo meeting of all of the volunteers. A summary of the meeting was:

- Information about pass pickups
- Details about breakdown and set-up
- Explained the operations and design of the booth
- Travel Information
- Finalized the schedules of the volunteers based on availability during the weekend
- Had all of the student volunteers teach each other how to demo their games.

After the informational and demo meetings were completed, the final student volunteer schedule looked like the table below. We limited shifts to two hours in order to minimize the burden upon everyone working the booth. Working the booth can be tiring and future years should note this when making schedules.

Table 2.1: Volunteer Schedule

	Initial Schedule		
Time	Fri	Sat	Sun
10 to 12	Oles	Ravi	Klew

	Bohdan	Yakin	Caitlin
12 to 2	Dan	Will	Derek
	Stephen	Ceren	Stephen
2 to 4	Will	Derek	Dan
	Ceren	Stephen	Stephen
4 to 6	Derek	Dan	Oles
	Klew	Caitlin	Bohdan
			Ravi
			Yakin

When creating the schedule we tried to avoid giving volunteers the same times every day. We also tried to have at least one member of each team working in the booth each day. Another initiative of the schedule was to not have anyone work the both during back to back shirts. It was determined that working at the booth is a mentally draining process and it would not be substantial to have being work shifts longer than 2 hours. In the schedule one of the undergraduate students would need to work two 2hr shifts consecutively. This only occurred because he was the only member of his team that was available to work that they. We also tried to not work the graduate students too much because they were required to assist us with the setup and the breakdown of the booth.

Overall the volunteer selection process went very smoothly. Even though we did encounter some minor issues, we were able to overcome them and plan very accordingly for PAX.

5. Project Execution

We feel that as a whole, our booth was effective in communicating our message and we had a lot of foot traffic in the booth. There were very few moments when we did not have a packed booth, and it proved to be a very productive weekend.

5.1 Execution of the Booth

Our final booth design after we set up was nearly identical to our plans, however, there were a few changes. The largest changes to our plans were what we placed onto our tables. On Friday, we had *Piper* along the left wall, *Wooplex* to the left of the TV, *Displaced* to the right of the TV, and then *Jazzy Mind* along the right wall. On Saturday, we switched *Piper* and *Wooplex*, and then we switched *Jazzy Mind* and *Displaced*. On Sunday, we kept *Piper* and *Wooplex* where they had been on Saturday, and switched *Jazzy Mind* and *Displaced* halfway through the day.

Figure 13: Booth Table Layout

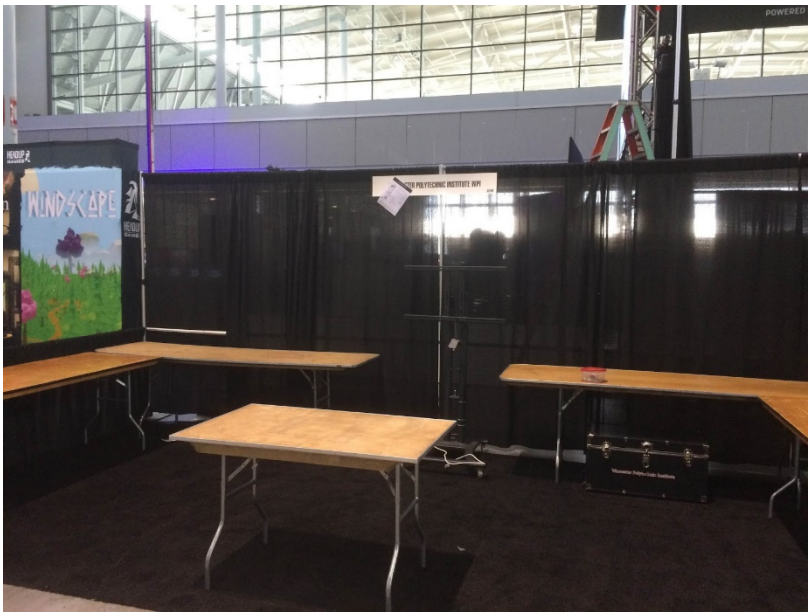
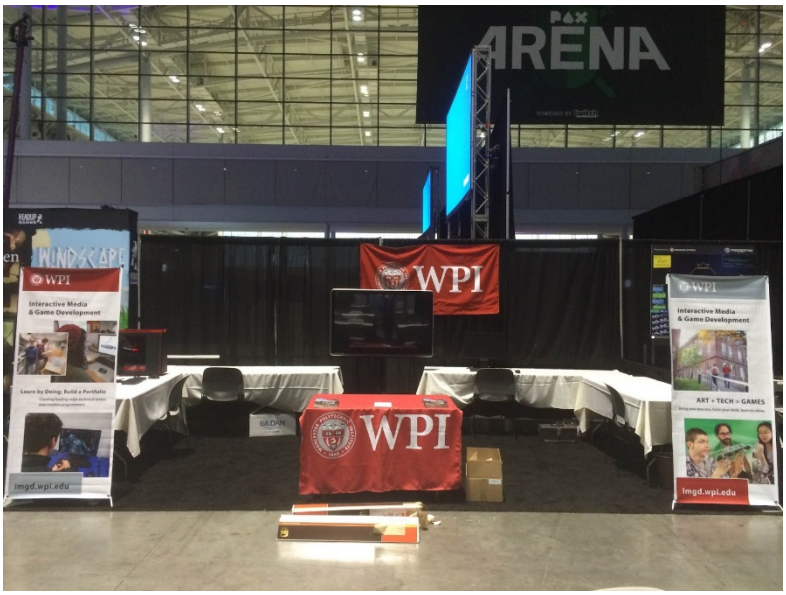


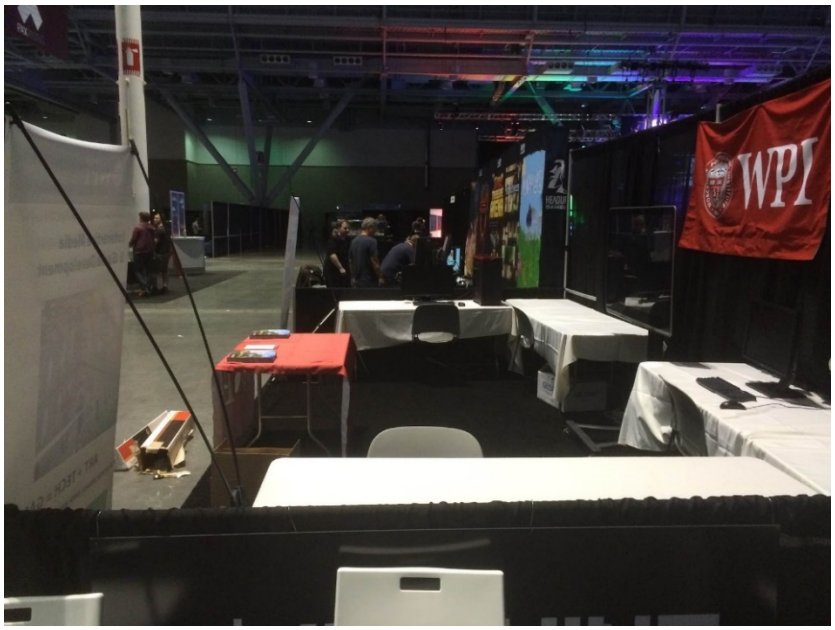
Figure 14: Booth Final Layout



On our center table, we kept our pamphlets from admissions, buttons, and candy. We had originally planned to keep most of it along the right side of the booth, but after setting up the rest of the booth, we decided that we would rather have that space to place a game.

When setting up, we found that the stands for the banners which we had purchased, were larger than expected. We got lucky in the fact that we had only put six foot tables along the sides of the booth, had they been eight foot tables, our banners would not have fit.

Figure 15: Final Booth Layout Side



Overall, we had a fairly open booth that had a simple design that was very functional.

5.2 Effectiveness

Our booth was very successful in promoting both WPI and the IMGD program We were able to collect over 25 Inquiry Forms for Admissions, which was a larger amount than we were expecting so we deemed that a success. Along the same vein, we gave away over 200 travel brochures from admissions. These numbers compared to the

total number of attendees at PAX is small, but when compared to the amount of prospective students and parents, and keeping in mind that most PAX attendees are not searching for colleges or informational booths, these numbers are very significant.

Over the course of PAX we also gave out all of the buttons we printed and pressed, running out in the last hour of Sunday. The majority of the buttons that were handed out were given to passersby after talking to them about WPI, and most of those were even handed out after they played one of the MQP's. That being said, some buttons were taken without any booth interaction on the part of the passerby.

These facts show the effectiveness of our booth in not just drawing people in, but also informing and generating interest in people about WPI's IMGD program.

5.3 Evaluation

The booth this year overall was a success. We were able to professionally advertise WPI and the IMGD program as a whole via WPI banners, admissions pamphlets, and student-made projects. While our plans grew and developed over the first two terms, once we had decided on a final layout for the booth, button and shirt designs, and games to showcase, there were hardly any changes we were forced to make during the weekend at PAX, exhibiting a well enacted plan.

With that being said, the booths of other colleges were much better than ours. We believe that this is because of two reasons. The first is that the school invests more money in the creation of the booth, and it shows.

Figure 16: Becker's Booth

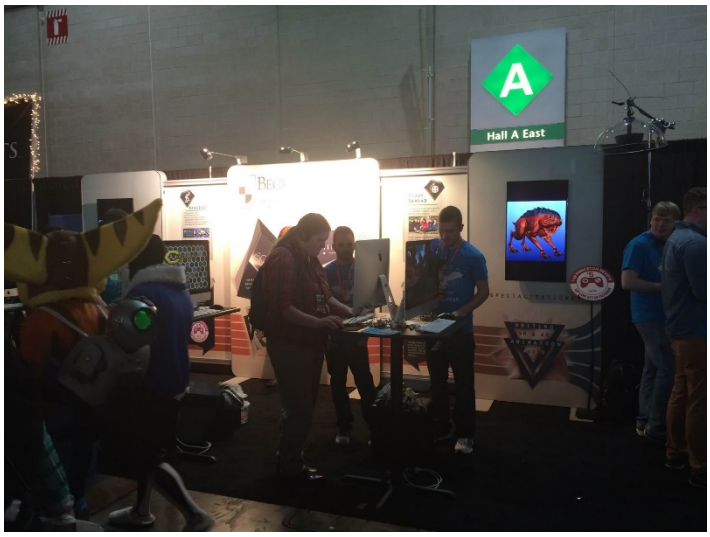


Figure 17: New England Tech's Booth

The other booths had multiple flat screen monitors, matching computer towers, and faculty running the booth. The second is that the booths are clearly not student run and made. Every person staffing their booths were significantly older than as student would be, and the professionalism that their booths demonstrated were far and above what we could accomplish with our meager budget.

6. Conclusion

We strove to reach the goals that we set for ourselves at the onset of this project. We coordinated the booth, keeping both our undergraduate and graduate volunteers on task, providing for the best possible experience for visitors to our booth. We made and designed buttons, shirts, and an advertisement to properly showcase WPI and the IMGD program. After a long and arduous weekend, we effectively and efficiently broke the booth down and set aside supplies for future years.

6.1 Post Mortem

When programming at a large event like PAX EAST, there will be many successes and shortcomings that occur through the process. This section will highlight the different successes and shortcomings that occurred at PAX this year.

6.1.1 Successes

With three group members with experience at programming for various off campus organizations we were to execute and produce a very successful booth this year. During the final week we were able to work together to execute different areas of the booth well before set up day at PAX. Two of the team members focused on the more external relations of the booth such as accessory rentals, purchasing food and water, tables rentals, organizing a van to bring all of the supplies to PAX. Another team member focused on a mixture of external and internal relations like obtaining a button machine; created a schedule of the events that we occurring on setup day; organized all of the accessory rentals. Some examples are the WPI banners from marketing, and

tablecloths from Chartwells. The last group member focused on the internal relation of the booth like communicating with different volunteers, and coordinating with different enforcers that were at PAX.

The layout of the booth received a bunch of positive feedback from professors, WPI students, and different professionals that were at PAX. The booth was very clean and gave off a professional feel to the booth. It was able to attract many high school students, parents and high school advisors. The booth was also able to attract many students that were planning on transferring to WPI. The layout of the booth was also able to display and showcase all of the different projects. We alternated between two different games on the TV, and the games being displayed on the TV were always able to attract different people. The oculus rift was also very successful at pulling different people to the booth. It was consistently the most popular item that was at the booth. For a majority of the convention there was a small line of people waiting to experience the oculus. After people finished the oculus rift they were playing the other games that were at the booth.

This year's booth at PAX was a major step forward from the previous booths. We were able to exhibit the WPI brand and successfully market the WPI and the IMGD program to PAX goers. The successes from this year's booth can potentially lead to more students looking into WPI and the IMGD program. Which could lead to a positive correlation of students applying and eventually attending WPI.

6.1.2 Shortcomings

While we experienced many successes during this project there are many aspects of the project that need to be improved. Most of the problems that occurred were due to

lack of information, miscommunication with the IMGD program and trying to find ways to reduce the amount of spending.

The first difficulty that we had to endure were the computers and the TV that were left for us. The computers that we were supposed to use for PAX, were old computers that were used in the Zoo lab. Those computers did not have an operating system on them and we dealt with many issues trying to login to the computers before PAX. This was due to the fact that internet was not available and we would not be able to get to the account information. We decided to not use the computers that were given to use from the Digital Arts studio. We had to use one of the team member's desktop to play one of the games on it. One of the other games was a mobile games and was played on an iPad. Two iPads were provided by that project group. The Oculus Rift was not able to run on the computers that was provided. The project group whose game used the oculus was able to provide their own computer. The other project group had to provide their laptop to display their games. The TV was only connected to the computer that was provided by the the member of the IQP team. This lead to the need to install multiple games to his computer and the laptop that was brought. In the future it is crucial to have more reliable computers that can be each year.

The games overall were a huge success and we had a ton of positive feedback on them. The problem was that one of the games was not as engaging for a demo. This game in particular was a slower game to play and it was really in depth. People who came to the booth had to spent about 30 minutes playing this game to really embrace it. People who were present at PAX had a very short attention span did not want to spend so much time playing a game because they wanted to experience the rest of PAX. The games that

are being demoed at PAX needed to be engaging and eye catching but they also need to be simple. If the game was too difficult it would also lose players' attention at PAX. When selecting the games for PAX next year, the next IQP needs to consider that the games need to be engaging, different, not too difficult, and it shouldn't take longer than 15 minutes to complete the game.

Towards the beginning of the project that there was an extra TV that belonged to the IMGD program was available to be used at PAX. When we were looking for that TV a week before PAX, it was nowhere to be found. Every person from the program that we asked did not know the whereabouts for the TV. This was a problem because we didn't have a TV that we planned for and we also needed the TV to figure out what size TV stand we should either buy or rent. Fortunately we were able to find a TV and a stand that was available in the Interaction Lab. If we were not able to use that TV then we would of had to rent a TV last minute and try to buy a TV stand that would fit that TV. Following teams should note our mistakes and realize that it is important to figure out a solution and find a TV earlier on in the process. Also it would have been beneficial to have a TV stand that was able to be taller than the one that we had. If the TV stand was taller it would have been able to attract more people to the booth.

This year, the liaison between the WPI IMGD program and representatives at PAX was transitioning herself out of the current position she was in at WPI. She was transitioning someone else into the position that she had previously. Due to the transition she was still in contact with PAX to obtain passes for the booth. We were under the impression that we would be able to tell her how many of each pass we needed for the booth. Multiple changes occurred as we were approaching the date for PAX and we were

not able to finalize a schedule until a couple of weeks before PAX. This resulted in a miscommunication and when we came to PAX to register our booth, we did not get the passes that we asked for. We had more passes than we needed for the booth, but not enough exhibitor passes to hand out to those helping to setup and breakdown the booth. Many passes went unused and were a waste of money on a limited budget. The problem is we planned for a particular amount of exhibitor and 3 day passes and we were depending on them for scheduling purposes. When we did not retrieve the passes we need we had to figure out a way to make sure that everyone was able to get to PAX. This is a direct correlation to miscommunication with us and the old liaison between WPI and PAX EAST. For next year she will not be in that position. It is important to work with the new person that is taking over that position and communicate as much as possible so this does not happen again.

This list of shortcomings were pretty minor, but they should be accounted for in the future:

- **It is important that we advertise frontiers program at PAX**.
    - We had every intention to bring the information about the frontiers program to PAX, but we were never able to get it.
- **We should potentially buy tables, purchase a dolly, and find storage space that is intended for PAX each year**.
    - All of these things are not necessary but it would make the preparation for PAX much easier for PAX in the future. This will also reduce the cost for PAX because it would reduce the amount of rentals.
- **The games should be labeled**.

    - The projects that are selected each year are very good and well done. The common narrative was that the MQPs get better every year that we return to PAX. Having the games labeled will endorse the projects to employers and other PAX goers.
- **Invest in a button machine**.
    - This year we decided to press our own buttons to reduce the cost. We were able to make three times as many buttons as the previous year at a third of the cost. Even though pressing your own buttons is extra work, it save a good amount of money in the budget.
- **Planning a better way to hang the banner**.
    - We obtained a table banner and a hanging banner from marketing this year. Both were very successful at displaying our brand and giving a professional feel to the booth. Using the hooks that was given to us by marketing was not able to hang the banner due to the weight of the banner. In the future it is important to try to find a solution to hanging the banner properly. This will only help the booth look more proper in the future.
- **Mobile games tend to be played when people are in line**.
    - The mobile game that we brought to PAX was successful but it was not as successful as the other games that were played through a computer. The mobile game was normally played when people were waiting on line for a different game. It didn't pull as much of a crowd when other games were available to play. To attract more people to the booth it might be better to

not use the mobile game as the main attraction. This does not mean that mobile games should not be selected in the future, but if a mobile game is selected then another desktop game should also be added.

- **Have the WPI brand on the buttons and the front of the shirts**.
    - The shirts for this year were created and different. The problem is since the front of the shirt and the buttons did not directly have WPI on them, they did not advertise WPI as much as they could have. No matter what design is selected for the front of the shirts and the button is important to have WPI listed somewhere in the design.

6.1.3 Suggestions for Future Projects

Moving forward, we have a number of suggestions and recommendations for the next group to take this project upon themselves.

Our first improvements are concerning the MQP's and games displayed in the booth. Firstly, it would be a good idea to keep the demos for the MQP's shorter than fifteen minutes. A majority of the people playing the games did not play for longer than five or ten minutes, and tended to leave mid game, which is not inherently a bad thing, but it may have left a better impression if they achieved satisfaction for beating the demo.

A great way we drew people into the booth this year was having a game that used virtual reality. We think that if it is possible to have a game with virtual reality next year, or some other emerging gimmicky technology, it would be a good idea to select it. With that being said, our mobile game, *Wooplex*, drew less of a crowd than the other games, in part, we think, because of its status as a mobile game on IPads. Lastly, it would be

advantageous to have posters or signs designed for each of the showcased games. It became difficult when the booth was crowded to show even the screens of some of the games. It would also be a nice touch to the overall ascetic.

Our next large suggestions relate to the materials and giveaways we had in the booth. Our buttons did not explicitly have WPI on them, and while they were a cool design, they were just that, a cool button. They did not direct people to our booth as well as they could have if they had WPI on them. On that note, we ran out of buttons the last hour on Sunday, so the button were indeed a hit. It would also be a good idea to make the only way to get a button to be to interact with the people working the booth, rather than just grabbing one and walking away to increase foot traffic in and through the booth. Similarly, Our shirts did not have WPI on the front either, and we think that it would have been better for the image of the booth if there was the WPI logo, goat, or some other kind of WPI associated imagery.

Our final suggestions are regarding the general setup and other miscellaneous parts of the booth. Make sure to get good and reliable computers. The original plan was to use the old computer towers from the IMGD labs, but there were issues with their operating systems, and they were insufficient to reliably run a number of the games. What we ended up using were the students personal computers. This worked, but was not ideal. In the long run, it might be advisable and cheap to invest in a button machine to print more buttons and get them cheaper. Lastly, it would be a good idea to get a taller TV stand to get the TV even further above eye level, and make sure that cables necessary to bring audio to the TV are brought to be used.

We hope that these suggestions help the next year of WPI PAX goe

8. Bibliography

Displaced PAX submission. (n.d.). Retrieved from https://youtu.be/FBF-9EFROUY

Intern Astronaut PAX submission video. (n.d.). Retrieved from https://www.youtube.com/watch?v=vO-3BGQnccA

Jazzy Mind PAX submission. (n.d.). Retrieved from https://www.youtube.com/watch?v=qexghcXtq6k

Krahulik, M. (2009, December 23). PAX East! Retrieved April 28, 2016, from

http://www.penny-arcade.com/news/post/2009/12/23/pax-east1

Piper Pax Submission. (n.d.). Retrieved from https://youtube.com/yDY6D5SpNKk

Taylor, J., & Porrel, C. (n.d.). The Ultimate PAX Booth for WPI.

https://www.wpi.edu/Pubs/E-project/Available/E-project-050315-

205144/unrestricted/Final_IQP_Submitted_Copy.pdf

The Story of the WPI Plan. (2011). Retrieved April 28, 2016 from

http://www.wpi.edu/academics/library/history/plan/

The Two Towers Tradition. (n.d.). Retrieved April 28, 2016 from

http://www.wpi.edu/academics/library/collections/two-towers.html

Wooplex Pax Submission. (n.d.). Retrieved from https://www.youtube.com/watch?v=Zp9f94GR9yc