

Determining an Effective Strategy for Rigs of Color to Clearly Communicate its Message and Find Success with Grant Opportunities

An Interactive Qualifying Project proposal to be submitted to the faculty of Worcester Polytechnic Institute in partial fulfillment of the requirements for the Degree of Bachelor of Science.

Sponsored by: Professor Farley Chery on Behalf of Rigs of Color

Submitted to: Professor Curtis Abel and Professor Farley Chery

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Abstract

This project aims to help Rigs of Color in furthering its mission to provide high-quality diverse character rigs to animators in game design, effectively dismantling stereotypes and fostering diversity by more accurately portraying characters of different backgrounds. In order to help Rigs of Color succeed in its mission, we conducted extensive research and collected data through surveys and interviews. We looked at gaming universities in Lyon for partnership opportunities, comparing their character design programs to those of Rigs of Color. We also looked to determine an effective strategy for applying to WPI's Women's Impact Network Grant to provide Rigs of Color with the resources necessary to further its mission, making ourselves more knowledgeable about the application process and speaking to past winners. Lastly, we analyzed the effectiveness of Rigs of Color's current website design to suggest changes that would allow for the message to be conveyed more clearly. From our results, we were able to create feasible recommendations related to each research topic that would allow for Rigs of Color to grow.

Acknowledgements

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1. Introduction

Take a moment to think about a cause that you tried to raise awareness for. Why was it important to you? What methods of raising awareness did you use to get your message out? When confronting issues such as discrimination these are important questions for non-profits, community leaders, protestors, and philanthropists to consider. In order to reach a larger audience, one must effectively demonstrate why the issue that they are trying to raise awareness for is something of importance. This can often be a difficult task if the problem is not explained in a way that makes it easy for one to comprehend. Many non-profits, for example, rely on funding from grants to help them raise awareness and afford the resources that will allow for them to be able to solve the problem that they are trying to raise awareness for. Having the necessary funding is important for non-profits, as many methods of raising awareness are contingents on financial resources. Success is also reliant on community support through the people who understand why the issue is important and needs to be addressed.

Two prominent issues in the animation world are racial bias and stereotyping, which have led to inaccurate portrayals of Black characters and other characters of color in video games. In order to combat these issues, a non-profit called Rigs of Color works to create characters of different colors and backgrounds to accurately showcase diversity in the video game world. Rigs of Color consists of a proudly diverse team of artists and

coders who work to create these character rigs for animators and video game designers to use. They rely on support from donors and the grants that they have received to help tackle the lack of diversity within animated media. This support also allows for them to train young artists on the basics of 3D production in an effort to engage them with the tools to further combat stereotyping within animation. However, one issue that Rigs of Color has faced in furthering this mission is finding the right language to effectively communicate why this is an issue that people should care about. Furthermore, there has been difficulty in defining what a character rig is and making the objectives of Rigs of Color appealing to those who are knowledgeable about what the term rig means within animation. As such, the primary focus of this project is to determine an effective way to communicate the message of Rigs of Color to potential donors and to find a way to make Rigs of Color fit the criteria to receive grant funding. This will allow for Rigs of Color to further its mission and recruit new contributors to help them expand and reach their goal of 1,000 diverse characters.

2. Background

2.1 An Introduction to Racial Stereotyping in Media

Discrimination can be "defined as the differential treatment of an individual based on a socially ascribed characteristic" (Hackett et al., 2020). One such form of discrimination is racial discrimination, persisting in virtually every domain that matters

for human well-being despite several legal interventions in the United States intended to mitigate its prevalence (Korver-Glenn, 2018). Although discrimination against minorities of all ethnic groups and religions is prominent throughout the world, many of those affected by racial prejudice are people of color.

Racial prejudice often stems from inaccurate stereotypes that people get exposure to in various forms of media, which causes them to judge someone based solely on appearance. Simply stated, stereotyping is a "by-product of our attempt to simplify and understand the world around us" (Deskins, 2013). When we stereotype people, we simplify them into groups, exaggerating similarities within a group and their differences from other groups. In regards to stereotypes, there are often inaccurate portrayals of Black and Latino people within various forms of digital media, which have negative consequences on White audiences in particular. Furthermore, these prejudiced groups are oftentimes underrepresented compared with U.S. population statistics and are thus limited to a narrow set of oftentimes stereotypical roles (Tukachinsky et al., 2017). Although improvements have been made over the decades, in many ways these groups remain defined by a limited volume and range of representations (Tukachinsky et al., 2017). For instance, depictions of Blacks have most commonly been found in predominately Black sitcoms or crime dramas with mixed race casts (Tukachinsky et al., 2017). As such, this promotes a more constrained set of ideas as to the norms and conventions of the genres in which these figures are more likely to appear.

Prior to the 1980s, Blacks were seen almost exclusively in "unflattering and largely disparaging roles on television, emphasizing criminality and idleness" (Tukachinsky et al., 2017). Among recent content analyses, it was found that Blacks and diverse groups in general are less likely to be depicted as employed, more likely to be seen in blue collar positions, and in the case of women, more likely to be criminals (Tukachinsky et al., 2017). Similarly, despite their presence as the largest ethnic group in the United States, Latinos are seen very infrequently on television. Those that have been displayed on television "have been relegated to a restricted set of roles including criminals, exotic lovers/sex objects, servants/blue-collar workers, and unintelligent objects of ridicule" (Tukachinsky et al., 2017).

These findings highlight the persisting patterns of racial and ethnic stereotyping in television representation. The portrayal of Blacks and other diverse groups on television has historically been characterized by negative, limited roles, which perpetuates harmful stereotypes. Despite some progress over the years, as previously stated, these groups are still disproportionately depicted in lower-status occupations and subjected to criminalization. These observations emphasize the need for increased diversity through the more accurate and inclusive portrayals within media, challenging stereotypes and promoting a more equitable media landscape.

2.2 Gender Stereotyping

Just as racial discrimination is highly prevalent, so is gender stereotyping among women. Media images often present one idealized type of woman who is thin, sexualized, and White (Biefeld et al., 2021). Due to this stereotypical portrayal of women in media, "women experience a tremendous amount of pressure to be thin, are given higher social status when they emphasize sexual body parts and are more often perceived as beautiful when they are White relative to other racial/ethnic groups (Biefeld et al., 2021). In the majority of female media portrayals, thinness is the ideal, reflective of it being a preferred trait in Western society. There are also negative attributes stereotypically associated with greater body size, as multiple studies have found that plus-sized women are perceived as less intelligent, popular, attractive, and happy than thin women. Furthermore, "a study of 251 film advertisements from six different countries found that only 7.2% of characters have a plus-sized body shape, of which only 30.1% are female, and when they are depicted, they are more likely to be portrayed as unintelligent and lazy compared to thinner characters" (Biefeld et al., 2021).

Additionally, regarding the sexualization of women in media, feature videos by female artists were found to present women in subservient or over-sexualized roles compared to videos of male artists (Adams-Bass et al., 2014). This over-sexualization of women in media has created a stereotype that women in general have a strong desire

for male attention. To further demonstrate how women are misrepresented in media, other research by Burgess et al. (2007) explored gender representation in video game covers and found that female characters were more likely to be portrayed in sexualized and passive roles, while male characters were more likely to be portrayed as powerful and active. This was also found in a study titled "The virtual census: representations of gender, race and age in video games" by Williams et al. (2009) which analyzed the representation of gender, race, and age in video games. This study found that women were often underrepresented, portrayed stereotypically, or portrayed in secondary roles.

The inaccurate representation of groups of people within media has caused for negative perceptions of others to form within people's minds that are simply not true. For instance, it has been argued that repeated exposure to television shows that feature stereotyped black characters creates negative perceptions of black people by others (Adams-Bass et al., 2014). There are often stereotypical portrayals of African American women that persist, for example. Often there are media images of black women that lack diversity and dimension (Adams-Bass et al., 2014). It is stated that female characters of popular culture icons are often "crafted on the negative racial stereotypes of Mammy – the asexual, happy, obese, dark-black mother figure; Jezebel – the shameless, over sexual, schemer; and; Sapphire – the rude, loud, and overbearing emasculator" (Adams-Bass et al., 2014). These historical caricatures have since

transpired into contemporary distortions: the welfare queen, who is sexually promiscuous and schemes for money; the video vixen, a loose woman; and the gold digger who schemes and exploits the generosity of men (Adams-Bass et al., 2014).

The perpetuation of such stereotypes in media not only distorts the reality of African American women, but also perpetuates harmful biases and prejudices. These distorted portrayals limit the representation, diversity, and complexity of Black women, reinforcing negative perceptions and hindering the progress towards equality and understanding. This further highlights how crucial it is for media creators to challenge and dismantle these stereotypes by providing authentic, multifaceted depictions that reflect the true diversity and richness of individuals within the groups discriminated against because of stereotypical thinking.

There is also evidence of the gaming industry in itself being largely dominated by men. According to a survey conducted by the International Game Developers

Association (IGDA) in 2021, around 62% of game developers identify as men, while only 30% identify as women. The remaining 8% identify as non-binary or other genders.

Furthermore, the survey found that 66% of game developers are White/Caucasian and only 34% are workers of color, including those of African American, Hispanic, or Asian descent. In addition to this, a study titled titled "The Gender-Equality Paradox in Science, Technology, Engineering, and Mathematics Education" by Stoet and Geary (2018) analyzed the gender representation in various STEM fields, including the video

game industry. From their results, they concluded that the representation of women in the video game industry was relatively low compared to other STEM fields of work.

Based on the evidence stated above, it is clear that women are often stereotyped within media and that the gaming industry remains predominantly male-dominated with a significant gender imbalance among game developers. The findings underscore the need for continued efforts to address and rectify the gender and diversity gaps within the gaming and media industry, fostering an inclusive and equitable environment for all individuals. By embracing diverse perspectives and creating opportunities for underrepresented groups, while addressing stereotypes in media, the industry can thrive and truly reflect the diverse interests and experiences of its members.

2.3 Lack of Diversity in Video Games and Discrimination

Although racial stereotyping and discrimination are present throughout various forms of media, these issues are also highly prevalent within the world of video games. In fact, stereotypes imbedded within video games may create racial prejudice and lead to overt discrimination against minorities (Deskins, 2013). Furthermore, unlike television or movies, stereotypes in video games offer a much more dynamic element, since they allow for people to embrace the role of a different person. Stereotypes move plot lines and stories, and by incorporating these stereotypes, the characters develop much more quickly, allowing for the storyline to move faster (Deskins, 2013). Through the process of social categorization, the media will use a stereotype to progress the story by using

these exaggerations and exploitations. As such, there is no need to develop a detailed background and storyline for every character, which leads to a lack of diversity within the video gaming world. In this way, stereotypes abound, which can lead people to get the wrong impression of others based on how they look or fit within a societal group.

To highlight the lack of diversity in video game characters, in a 2022 study published by the dBs Institute of Sound & Digital Technologies, it was found that nearly 80% of game characters are male, over 50% are White, and just 8.3% of main characters in games are female of non-white ethnicities. Similarly, a DiamondLobby study compiled over 100 games released in the past five years, between 2017 to 2021. The games that were selected in this study were the 10 highest selling games from each of the years, along with every other major game release from the biggest gaming publishers including Activision, EA, Nintendo, Ubisoft and more. Games that allowed for one to play with a fully customisable character were removed from this study, which left them with a list of preset characters only. This reduced their final list to 93 of the biggest games released over the past five years. From this study they found that 79.2% of main characters in games are male, 54.2% of main characters in games are white, and 8.3% of games had female main characters of Black, Asian or other ethnic origins. Furthermore, of 810 characters across the games they studied, 66.5% were male characters, 27.7% were female, and the remaining 5.8% were non-binary. In addition to this, 31.7% of games had only male characters and 5% of games only had female characters. This

means that there are over six-times more games with only male characters than there are with only female characters.

Regarding ethnic diversity in video games from the DiamondLobby study, 61.2% of characters in games are white and 38.8% are all other ethnicities combined.

Additionally, 9.5% of games only have a White protagonist and 5.3% of games do not have a White protagonist. The most diverse game in the study was found to be Apex Legends. In this game, 50% of the playable characters are female and the other half of the playable characters are made up of 7 males and 1 non-binary characters. 6 out of 17 characters are openly gay, bisexual or otherwise 'not straight.' And 50% of the playable characters are Black, Asian, or otherwise 'not white.'

These studies demonstrate the lack of representation and diversity in video games. In this way, video game developers still have a long way to go in order to create a true and accurate reflection of the diversity of modern society. Furthermore, since many video game characters are not female or not people of color, they are much more heavily predisposed towards being stereotyped by others, especially since they are not accurately depicted within various forms of media. This is a problem because of the dangers associated with stereotyping, which have negative effects on people within society who are directly targeted.

2.4 The Dangers of Stereotypes in Video Games

As previously stated, stereotypes often perpetuate biased beliefs and reinforce existing prejudices. This can lead to generalisations about a group of people based on limited or inaccurate information, thus contributing to discrimination, prejudice, and harmful attitudes towards those who do not conform to the stereotypes. Additionally, stereotypes overshadow diversity and the individuality of people within a particular group. They create rigid assumptions on how individuals should behave or what abilities and characteristics they should possess solely based on their affiliations. This can stifle personal expression, discourage authenticity, and limit opportunities for growth and self-discovery.

In regard to female stereotypes in video games, several studies, such as "Sexist Games = Sexist Gamers? A Longitudinal Study on the Relationship Between Video Game Use and Sexist Attitudes" by Breuer et al. (2018) have explored the relationship between video game exposure and attitudes toward gender. This particular study, among others, found that exposure to sexist video game content was associated with more sexist attitudes and hostile behaviors towards women. In this article, Breuer et al. (2018) state that "cultivation theory suggests that long-term exposure to media content can affect perceptions of social realities in a way that they become more similar to the representations in the media and, in turn, impact one's beliefs and attitudes." As previously stated, women are often underrepresented within media, and when they are

represented, they are typically sexualized and portrayed inaccurately. In video games, this has an impact on the players' beliefs and attitudes towards women, as the "APA Task Force of the Sexualization of Girls suggested that media, such as television or video games, can shape and affect beliefs about and attitudes toward gender roles in society" (Breuer et al., 2018). To further highlight this, a study published in the Journal of Youth and Adolescence by Ferguson et al. in 2017 analyzed the association between video game content and hostile behaviors towards women among adolescence. The research found that exposure to video game content content that depicted women in stereotypical and objectifying ways was associated with higher levels of hostile attitudes and aggression towards women.

There are also dangers associated with the stereotyping of people of color. Past evidence, for example, has suggested that embodying a racially stereotyped African American video game character triggers stereotyped thinking among White players. This research has demonstrated that African American avatars can activate negative stereotypes of African Americans for White individuals (Behm-Morawitz et al., 2016). For instance, one experiment demonstrated that playing as an African American video game character in *Saints Row 2* (a popular gang-based action video game) resulted in greater implicit and explicit stereotyping of African Americans and higher rates of aggression for White players, in comparison to their peers who embodied a White character in the game (Behm-Morawitz et al., 2016). According to this article, the

integrated threat theory of prejudice provides the foundation for the first explanation of the stereotyping effected resultant from embodying a stereotyped out group avatar. It is stated that fear places a central role in prejudice and a negative stereotype of an outgroup may serve as a threat to one's identity and in group, which can trigger the formation of negative attitudes about the stereotyped group. Based on this perspective, "embodying a negatively stereotyped African American video game character may serve as a threat to a White player, thus triggering stereotyped thinking as a way to protect one's in-group and distance the outgroup" (Behm-Morawitz et al., 2016).

To conceptualize stereotyping, Behm-Morawitz et al. Conducted a research study with 107 White undergraduate students, where 46% of participants were male and 54% were female. Participants in the gaming conditions played on an Xbox 360 console at individual gaming stations. Gender was also manipulated in this study, gender-matching participants with their character in the video game. From the study, it was found that White players who had greater negative affective responses to the game play showed higher levels of stereotyping and lower levels of support for policies that would aid minorities, such as African Americans. Furthermore, the study demonstrated the virtual threat effect, where stereotyping is triggered by the desire to protect one's in-group and distance themselves from the outgroup.

Based on these previous research studies, it can be concludes that stereotyping in video games can lead to the reinforcement of negative perceptions about women and

people of color. As previously stated, the portrayal of women often falls into narrow and unrealistic tropes, in which women are objectified as mere damsels in distress or hyper sexualized characters. Such representations are dangerous, as they limit the diversity of roles available to female characters and send a message that their worth is primarily based on their appearance or as secondary characters of little significance. Furthermore, because of these harmful stereotypes, women often receive hostile treatment. Similarly, people of color are often depicted using stereotypical traits, which reduces their rich cultural identifies to shallow and oftentimes offensive caricatures. As such, it is crucial for leaders in the game industry to challenge these stereotypes and strive for a more authentic representation of these minorities, fostering a more inclusive and empowering gaming environment for all.

2.5 Diverse Character Rigs as a Means of Combating Stereotypes

To combat the dangers of stereotypes, it is important to promote diverse and accurate representations, challenge biases, encourage open dialogue, and foster inclusivity and understanding within society. As such, recognizing the individuality and complexity of each person is crucial to fostering a more inclusive environment. In creating more diverse video game characters, stereotypical thinking can be fought against as various groups of people with their own unique set of attributes will be represented more accurately in a positive light.

Diverse characters in video games can challenge and dismantle stereotypes by offering alternative representations. By showcasing characters from different backgrounds, races, genders, sexual orientations, abilities, and cultures, games can disrupt preconceived notions and provide a more accurate portrayal of real-life people (Dill et al., 2007). Furthermore, diverse characters can serve as positive role models for players. By featuring players who defy stereotypes and showcase a range of strengths and abilities, video games can inspire players and promote inclusivity. This will further combat harmful stereotypes and encourage players to embrace diversity in the real world.

Furthermore, video games have the ability to immerse players in different perspectives and experiences through a virtual reality. With more diverse characters and storylines, games can foster empathy and understanding among players (Dill et al., 2007). This can lead to increased acceptance and appreciation for people from diverse background, again breaking down stereotypical thinking. The gaming industry also has a significant impact on popular culture and can shape societal perceptions as a result. By accurately representing the individuals who inhabit the world in which we live, video games can help normalize diversity and challenge stereotypes. Having more diverse characters would also contribute to the creation of more inclusive gaming communities, because when players see

themselves represented in games, they are more likely to feel welcome and valued. This fosters a sense of belonging and can help combat stereotypes by promoting diverse perspectives and experiences in the gaming world.

Overall, more diversity in video games can combat stereotypes by offering alternative representations, providing positive role models, fostering empathy and understanding, reflecting real-world diversity, and creating an inclusive environment. By embracing diversity through the creation of more characters designed to accurately represent the many unique people who inhabit this world, the gaming industry can challenge stereotypes and promote a more inclusive and accepting culture.

3. Methods

Our goal is to determine an effective strategy to help Rigs of Color receive WPI's Women's Impact Network Grant and appeal to other non-profits that may be interested in a partnership opportunity. To achieve this goal and help Rigs of Color clearly get its message across, we focused on four main objectives, which are outlined below:

 Gather background information on Rigs of Color and understanding the current strategies and constraints in its growth

- Learn about gaming schools in Lyon to compare to Rigs of Color and look for potential partnership opportunities
- Gather information about WPI's WIN Grant through research and interviews
- Determine effective strategies to make Rigs of Color's website more appealing for grant and partnership opportunities
- 3.1 Objective 1: Gather background information on Rigs of Color and understand the current strategies and constraints in its growth.

To begin and gain a better understanding of what Rigs of Color is, we interviewed our sponsor, Prof. Farley Chery and asked him a series of questions that would allow for us to gather more background information about the non-profit. The website was also analyzed, looking specifically for potential areas of improvement. The questions asked pertained to goals for the website and the non-profit as a whole, as well as questions as to what improvement Farley believed needed to be made in order for Rigs of Color to stand out among potential competitors.

3.2 Objective 2: Learn about gaming schools in Lyon to compare to Rigs of Color and look for potential partnership opportunities.

Gaming schools in Lyon were also researched and a comparative analysis was created in order to compare their programs to what is offered by Rigs of Color. Initially, the goal of looking into schools in Lyon was to determine if any one of those schools would be a good fit partnership-wise. However, due to the time constraints while abroad in France, the project focus was shifted to potential website improvements and writing a successful grant application for the Women's Impact Network grant.

3.3 Objective 3: Gather information about WPI's WIN Grant through research and interviews.

Interviews were conducted with several faculty members of WPI, which included those who had previously received WIN grant funding and those who were either currently or formerly on the grant reviewing committee.

The goal was to gather input on how to best construct a successful grant proposal that would make Rigs of Color stand out while also gaining insight into how the reviewing committee chooses grant recipients. From these

interviews, a thoughtful grant proposal was constructed along with suggestions for writing a successful grant application.

3.4 Objective 4: Determine effective strategies to make Rigs of Color's website more appealing for grant and partnership opportunities.

This part of the project was completed by Jared Lasselle, and is discussed more in his project submission, as we submitted separately. He looked into areas of website improvement and a survey was created and sent out to students at WPI/others to look for input on how the website could be improved. The results were then analyzed to determine the best strategy moving forward for website improvement.

- 4. Results & Analysis
- 4.1 French Gaming Universities Research Results:
- 1.) Emile Cohl Art School (Lyon, France)

Contact: 1 Rue Felix Rollet, 69003 Lyon 04 72 12 01 01

Established in 1984. Focuses on helping students develop skills in screenwriting, film production from start to finish, and industry-standard animation tolls such as Toonboom Harmony, TV Paint, and Adobe After Effects. There are workshops, professional critiques, business conferences, group projects, a six- month internship, and support and preparation for the final

graduation project. There are courses in character design, cover sketching, modeling and digital sculpture, lighting and rendering in Maya and 3DS Max, composition painting, media writing, methodology and documentation, layout, scenery and level design in Photoshop, storyboards, sound design, compositing, and visual effects in Adobe After Effects and Nuke. The Animation Specialization takes 2 years to complete and lead to a Professional Certificate.

2.) ESMA, Ecole Supérieure des Métiers Artistiques (Lyon, France)

Link: https://www.esma-3d.fr/en/campus/lyon/

Other Locations: Montpellier (main), Nantes, Toulouse, and Montreal (Canada)

Contact: 2 Cours Bayard 69002 Lyon 04.78.37.22.32

Contact@esma-lyon.com

Founded in 1958, ESMA houses the CG Animation Cinema and Special

Effects Department, which has 2 programs for animators: the 3D Animation

Cinema & Special Effects leading to a Professional Diploma and the CG Animation

& FX Master's Degree. It explores animation techniques and animation

production. Students have the opportunity to create an industry-ready animated short film in groups of 4-7 students. This degree takes 3 years to complete.

Graduates have been recruited by Ubisoft, Sony Pictures Imageworks,

Illumination Mac Guff, Framestore, Industrial Light & Magic (ILM), Weta Digital, Aardman, Fontes Architecture, IKKS, Mikros Animation, MPC, Untold, A+Architecture, and ba&sh. Lyon location was established in 2017 and offers instruction in French and English.

- 3.) Bellecour École (Lyon, France)
- -Campus Dauphin: 18 rue François Dauphin 69002 Lyon
- -Campus Republic: 62 rue del la Republique 69002 Lyon
- -Orangery Campus: 1 Place Renee Dufourt 69002 Lyon
- -Campus Milky Way: 42 Suchet Courses 69002 Lyon

More of an art and design school, but they have a bachelor's in game design program to train students for work on traditional platforms/video games. Students design the experience of a video game/video game project, participate in the realization of the 3D animation of a character or set, implement the visual rendering decided by the artistic direction by defining the characteristics (colors, reflection, relief, materials) and the affordance of the elements of the universe and by realizing the textures of the 2D/3D models, design a diagnostic schedule for the components of the game, and correct anomalies related to game design, game/tech art.

Game Sup – L'école Supérieure (The higher school of video games in Lyon,
 France)

Contact: 91 Cr Charlemagne, 69002 Lyon

Trains students in the professions of Game Art and Game Design. Student work ranging from Art Concepts, 3D Modeling, Digital Sculpture, Digital Painting, Lightning, Texturing, Rigging/Skinning, Special Effects, Compositing. Students have worked for Ubisoft, Epic Games, and Unity, among others.

5.) Ecole de Jeux Video (Video Game School Lyon, France) – also a location in Paris Contact: Gaming Campus, 50 Rue de Marseille, 69007 Lyon Gamingcampus.fr

Located in the university district of central Lyon, next to the Lyon

Universities 2 and 3, easily accessible at the foot of the "rue de L'Universite" tram stop and Velo'v station, 5 minutes from Jean Mace metro and 10 minutes from Lyon Part Dieu. Launched in 2018, putting student employability at the heart of its strategy. Companies participate in the development of programs, intervene during project weeks and contribute to the continuous improvement of teaching.

Over 200 partner gaming companies.

6.) Brassart – School of creative professions

Link: https://www.brassart.fr

Contact: 2 Av. Du Château de Gerland, 69007 Lyon

Founded on the desire to create, imagine, invent new universes, and the desire to reveal the creative talent of the students. 5 sectors that promoted this creativity: graphic design, audiovisual, 3D animation, video games, graphic arts/illustration. 3D & VFX animation/Video Games. First school of graphic design and digital creation, founded 70 years ago (1949) and established in 14 regions in France (including Lyon, Paris, Toulouse, Tours, Annecy, and Grenoble. Game design curriculum is meant to take 3 years and training prepares students for the design of video games systems and mechanics. Two training courses in 3D animation/VFX. 3D animation/Video game art is one of the trainings as a 5 year course.

7.) Université Lumière/Gamagora

Link: https://icom.univ-lyon2.fr/gamagora

Contact: 5 Av. Pierre Mendes France Bâtiment I, 4e étage, 69500 Bron

Lyon Université Lumière is a renowned institution offering various academic programs. One of the programs available is Gamagora, which is a

gaming program specializing in game design and development. Gamagora focuses on providing students with a comprehensive understanding of the gaming industry and the skills required to create innovative and engaging games. The program covers a wide range of topics related to game design, game programming, 3D modeling and animation, virtual reality, and game production. Also provides students with access to state-of-the-art facilities, including dedicated game development studios and computer labs equipped with industry-standard software, and specialized equipment for virtual reality and motion capture.

4.2 Analysis Comparing University Gaming Programs to Rigs of Color:

Rigs of Color

- Planned launch in Summer 2024
- Early subscribers will get 2 premium character rigs for free (one at launch and one 6 months later)
- Providing high quality black, brown, and Asian character rigs
- Train young artists on the

Emile Cohl Art School

- Offers a comprehensive curriculum in animation and digital arts
- Their game design program focuses on teaching students the fundamentals of game design, including concept development, character design, level design, and storytelling

ESMA

- Art school known for its animation and visual effects programs
- Offers a game design program that covers various aspects of game development, including game mechanics, level design, scripting, and game production

- fundamentals of 3D production
- Since 2020, 3D modeling courses affiliated with RoC have centered on understanding ethnic aesthetics, and developing teaching techniques to shorten production times, hastening the student's understanding of core concepts
- FAME is in-house rigging solution, designed to keep artists up to date with latest industry solutions
- Team is run like a studio instead of a research lab, developing tools to purse their goals and develop antiracist curriculum that fits into WPI's project-based learning model
- Dedicated to making most of its content free, with premium models funding the growth

- Offers courses in traditional animation techniques, 2D and 3D animation, digital painting, and visual effects
- Program aims to prepare students for careers in the animation industry, including opportunities in game animation
- Includes courses in 2D and 3D animation, character design, storytelling, and visual effects
- Focuses on providing students with both technical and artists skills required for game design and animation careers

of the character library Plan to make tools publicly available to lower the barrier to entry for independent artists and small studios to make creating diverse characters with ease accessible to all (not just to commercial studios) Tutorials and tools to be released to support their mission to help everyone feel comfortable creating characters		
of all backgrounds.		
<u>Bellecour École</u>	Game Sup	<u>Brassart</u>
 Renowned art school offering various programs in animation, video games, and digital arts Their game design program provides students with a comprehensive education in game development, 	 Specialized school offering programs in video game design and development Their game design program focuses on teaching students the technical and creative aspects of game development, 	 School with multiple campuses in France that offers programs in digital arts and design Their game design program focuses on teaching students the skills necessary for game development,

- including game design principles, 3D modeling, animation, and programming
- Emphasizes handson learning and encourages students to work on collaborative projects to stimulate real-word game development environments
- Also offers animation programs that cover various techniques, including traditional animation, 3D animation, and visual effects

- including game art, programming, game mechanics, and game production
- Offers courses in 2D and 3D animation, character design, game engines, and interactive storytelling
- The programs aim to provide students with the skills and knowledge needed to succeed in the game industry, including opportunities in animation-related fields

- including game design principles, 3D modeling, animation, and programming
- Offers courses in character design, level design, game engines, and visual effects
- The program aims to prepare students for careers in game design and animation, with a focus on technical proficiency and artistic creativity

Lumière

- The Gamagora program at Université Lumière is a university program specializing in game design and development
- It offers a comprehensive curriculum covering

Ecole de Jeux Video

- School dedicated to video game education
- Their game design program covers various aspects of game development, including game design theory, game

- various aspects of game development, including game design, game programming, 3D modeling, animation, virtual reality, and game production
- The program emphasizes collaboration and teamwork through individual and group projects
- It benefits from a multidisciplinary approach, incorporating elements from computer science, art, design, and storytelling
- The program aims to equip students with the necessary skills and knowledge to purse careers in game design, including opportunities in animation-related roles

- programming, 3D modeling, animation, and game production
- The school offers courses in character design, level design, scripting, and interactive storytelling
- Aims to provide students with a solid foundation in game design and animation, preparing them for careers in the gaming industry

4.3 WPI Women's Impact Network Grant Research Results:

Link: https://www.wpi.edu/give/impact/appreciation/lifetime-giving-societies/womens-impact- network/win-impact-grants

About the Grant:

- Grant application cycle opens B-term and runs through the beginning of Cterm in each academic year
- Supports programs/projects that advance women in STEM as well as align with WPI's Strategic Plan (Lead with Purpose)
- Grants typically range between \$2,500-\$50,000. Submitted applications are reviewed in C-Term and announced in D-term

Sample Past Winners:

2023:

- EMPOWER: strives to create a more inclusive, engaging, and empowering environment especially for female and BIPOC students by increasing representation within the classroom and empowering students as cocreators of course content. Has potential to expand beyond the borders of WPI as students and faculty across the globe will also be able to engage with these materials
- Marja Bakermans (faculty)

Anna Gold (staff), Courtney Kurlanska (faculty), Lori Ostapowicz-Critz (staff)

and Sarah Stanlick (faculty)

• Grant Award: \$41,886

Girls Talk Math at WPI: free two-week math and media day camp for girls

and non-binary high school students in the Worcester area. WPI hosted the

third chapter of GTM in summer of 2022. Campers work in groups on

challenging, hands-on problem sets and write a blog posts about their

solutions. Campers also record podcasts about scientists from marginalised

groups. Camper media is available on the camp website, iTunes, and Sound

Cloud.

Francesca Bernardi (faculty)

■ Categories: K-12 Pipeline Activities, Diversity & Inclusion

• Grant Award: \$24,958

Grant Application Guidelines:

• Must meet grant criteria below:

Provide pathways to advance women at WPI

• Increase the number of women in STEM fields

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Create a positive difference for women in the extended WPI community
 Elevate WPI's impact and extend its reach beyond WPI

Eligibility:

- Individual undergrad or grad students (with WPI faculty/sponsor)
- IQP, MQP, GQP or other project teams (WPI faculty/sponsor required)
 Student groups (w/faculty or sponsor)
- WPI faculty/staff
- WPI alumni

Note: Can be independent projects, collaborative projects working between multiple disciplines at WPI, new programs, or partial support of an existing program. As such the following initiatives fit this criteria:

- Funding for professional/leadership programs including programming related to the professional development training of women faculty, staff students (like Rigs of Color)
- Guest speakers who offer dialogue on women's issues
- Funding for STEM related K-12 pipeline activities for girls
- Send money for entrepreneurial endeavors for women resulting from undergrad, grad, or faculty research work

<u>Further:</u> Application must include a detailed budget for full and partial funding amounts and an impact statement for the partial budget. Below is what is not considered a viable expense:

- Stipends, wage expenses (faculty/staff salary)
- Personal technology devices
- Tuition
- Capital improvements/expenses as defined by the WPI Property Manual (tangible, non-expendable, personal property having an anticipated useful life of one year or more and having a unit acquisition cost greater than or equal to \$5,000)

Expectations for Grant Recipients:

- Grant recipients may be asked to participate in various events that showcase their works
- May need to participate in video projects thanking donors/sharing work progress
- Grant recipients are expected to track/report data to show impact of project
- All grant monies will be distributed upfront to WIN grant recipients. Transfers will go to the primary awardee's Cost Center w/a designee code. These codes will be set up by Finance for staff awardees only

 All grant recipients will be required to sign a grant agreement prior to receiving their grant

<u>Further:</u> When applying consider the project plan, purpose, WIN Mission, Impact, and your evaluation of success/the outcome:

Project Plan:

- Who is the target audience?
- What is the project staffing?
- What is the project schedule?
- What would your project look like with partial funding?
- Is this proposal a renewal of a previously funded grant? (What lessons have you learned and what changes will you make if so?)

Purpose:

- What significant problem or need is addressed by your project?
- Why is this important?
- Does this project address a gap in existing WPI programs?
- What makes this project innovative?
- Knowing that the committee will review a number of applications and that there is a finite amount of funds WIN can grant, what makes your project worth the investment of funds?

WIN Mission (Tie this in with Rigs of Color):

- Does your project provide pathways to advance women at WPI? If so, how?
- Would your project increase the number of women in STEM and how?
- Would your proposal create a positive difference in the extended WPI community? If so, how?
- Would your proposal elevate WPI's impact/extend its reach beyond the WPI community and if so, how?
- How is your project uniquely important to the mission of supporting girls and/or women in STEM?
- How will WIN be recognised as having played a role in the success/completion of your project?

Impact:

- Who do you anticipate will directly and indirectly benefit from this project?
- What direct and indirect impacts do you anticipate occurring as a result of this project?
- How many people do you expect will be directly/indirectly impacted by this project?
- How will you measure the direct and indirect impacts of your project?

Evaluation:

- What are the expected outcomes of your project?
- How will your measure success?
- How will you measure the direct impacts of your project?
- How will you measure the indirect impacts of your project

Proposition For Rigs of Color Based on Initial Research: Consider how Rigs of Color is helping advance women in the technology aspect of STEM, highlighting the women who have been working with Rigs of Color and designing characters. Could think about how Rigs of Color provides opportunities for women to advance their skills in rigging/character design, something that is traditionally maledominated. How does Rigs of Color help women feel confident in their skill level/abilities? Next, consider the "why" aspect of the project – describing the purpose in a way that clearly states why the issue is important using data and statistics. Could highlight the lack of diversity in video games through statistics and also use data/statistics to demonstrate how the video game world was largely dominated by men (STEM fields of work in general as well). Then consider the project's impact – what are the indirect and direct impacts or social implications of this project?

<u>Sample Application for WRAMP – Women's Research & Mentorship Program-</u> <u>Expanded:</u>

Link:

https://www.wpi.edu/sites/default/files/2020/10/13/Grant%20samples%20for% 20WIN%20website%20 12.10.19.pdf

- They requested \$32,500
- Led by primary applicant Suzanne Sontgerath (director of pre-collegiate outreach programs)
- This is just part of their application. There is a 14 page PDF on WPI's website (click the link) which has a few sample applications that showcase what WIN looks for

Provide a summary of your proposal here that would be appropriate to publish in the grant announcement event program booklet should your application be funded:

The original WRAMP program is a WIN funded program for high school women to engage in hands-on STEM research with female graduate student role models. This grant builds on the previous WIN funded WRAMP program by increasing the number of high school students participating, introducing

undergraduates to the mentoring teams and improving the diversity of the teams. Research teams consisting of two high school students, one undergraduate and one graduate student will work together in the graduate student's lab. By recruiting undergraduates from the Connections group at WPI, the teams should have more diversity. Teams will meet for four Saturday sessions and 2-4 hours a week in the labs with their graduate student mentor. During the Saturday sessions, high school participants will develop professional skills and participate in college readiness workshops. Undergraduate and graduate women will participate in professional development workshops offered by the WPI STEM Education Center on topics such as: mentoring and being a role model in a lab; promoting a "growth mindset" and incorporating inclusive pedagogy when mentoring; leveraging the mentoring experience when applying for graduate school, postdocs, academic positions and industry jobs.

Provide a detailed description of your project/initiative including objectives, project staffing, and schedule:

WRAMP is a WIN funded program for high school women to engage in hands-on STEM research with female graduate student role models. We are proposing the expansion of our current WRAMP program to include WPI

undergraduate students. Women research teams consisting of two high school students, one undergraduate and one graduate student will work together in the graduate student's lab. This grant builds on the previous WIN funded WRAMP program by introducing undergraduates to the mentoring teams. Graduate students will apply to mentor a student by submitting a project description and an essay describing their interest in mentoring. Undergraduate students will apply to be on the research team by submitting a transcript and an essay. For the undergraduate students, there will be a focus on recruiting from Connections (Connections is a student group for underrepresented students of color and first generation students). High school applicants will submit a transcript and essay as well. Each offering of the program will be one semester long. The first offering will be fall of 2018 and the second in the spring of 2019. Teams will meet for four Saturday sessions and 2-4 hours a week in the labs with their graduate student mentor. During the Saturday sessions, high school participants will develop professional skills and participate in college readiness workshops. Undergraduate and graduate women will participate in professional development workshops offered by the WPI STEM Education Center on topics such as: mentoring and being a role model in a lab; promoting a "growth mindset" and incorporating inclusive pedagogy when mentoring; leveraging the mentoring experience when

applying for graduate school, postdocs, academic positions and industry jobs. In order to encourage accountability and incentivize the graduate students, undergraduate students and the high school students, we are proposing that a stipend be offered to all program participants.

Why is this project important? What problem or need is addressed? Does it address a gap in existing WPI programs?

According to the National Science Foundation's Science and Engineering Indicators, women earned 57.3% of bachelor's degrees, but only about 20% of those are engineering degrees. When we look at advanced degrees such as Masters or PhD programs, the results are similar. Women received 25.2% of Engineering Master's degrees and 23.1% of doctoral degrees in 2015. Ultimately, this leads to fewer women faculty in engineering and the physical sciences. At WPI, the enrollment of women on campus has been increasing steadily with the class of 2021 comprised of more than 40% women. However, in the full time graduate degree seeking population at WPI, the numbers are mixed when compared to national trends. Women represent only 10% of engineering master's degrees candidates and 28% of STEM degree candidates. Only 2.5% of full time graduate women are domestic women of color.

The program outlined will address several gaps in existing WPI programs. First, the current scope of POP programming includes many offerings for women at the middle school level both in the academic year and in the summer. However, we currently only have one academic year program for high school students. Therefore, many of our students who go through our middle school programs do not have a place to progress in the pathway. The proposed program will offer more opportunities for high school girls to continue to pursue their interest in STEM at WPI with a special focus on engineering and computer science. Additionally, there is a need to diversify our graduate student population. This program will encourage undergraduate women from diverse populations to consider pursuing advanced degrees at either WPI or elsewhere. Finally, the need for additional opportunities for graduate students to engage in teaching and mentoring. This program will provide female graduate students at WPI with a professional development opportunity.

What are the expected outcomes of your project? How will you measure success?

The initial offering of WRAMP is in progress and initial indications are that the program will be very successful. We received 14 graduate applications for 5 spots and over 30 applications from high school women. Mentors have

anecdotally reported that their meetings with the high school women in the lab have been very successful. We completed an orientation on January 20th and will have our second Saturday session on February 17th. We hope to see young women who are already active in the WPI outreach pathway continue to advance through the pipeline. For the high school women, we would anticipate increased interest and self-efficacy in STEM as measured through a pre/post assessment. For the undergraduate women we would like to see role identity growth from student to mentor. We would also like to see increased interest in attending graduate school. This will be measured through retrospective surveys. For the graduate students we would expect to see a self- reported shift in role identity from researcher to teacher or mentor over the course of the program. We will survey the graduate students with a retrospective program assessment to determine if this shift occurs.

4.4 Interview with Courtney Kurlanska

For this interview, we began by explaining what Rigs of Color is. We discussed how Rigs of Color aims to dismantle stereotypes to allow for the accurate portrayal of characters in video games. Diverse character rigs are created for animators to use in their games, with most being free (although there are some premium characters). Rigs of Color further aims to train young artist in

the field, as people of color in particular are not being accurately represented in the media and there is not enough diversity in video game characters.

Courtney was also told that most people working as contributors are female and others from diverse backgrounds, such as people of color.

Furthermore, most contributors are WPI students. As part of his budget with WIN funding, Farley would like to pay his student contributors. As such, the purpose of this interview was to get Courtney's opinions on the different aspects of this grant in order to allow for us to identity the best approaches to communicate the value that Rigs of Color brings to the community to prepare to submit in grant proposals (specifically WIN).

Below is an interview summary with Courtney's feedback on each of the questions that she was asked:

1.) Do you feel that there are particular types of projects that the WIN organization might be more likely to fund? If so, what types of projects?

She mentioned that in the past there was a project that received funding for a reading club focused on women in scientific literature and other forms of

literature, since women are often underrepresented in history. Courtney said it is important to have a "snappy" name, a good title, and a project focus on women.

WIN is very impact driven, and they focus on how many women are affected.

There should be a measurable impact for the project, where you will be able to say, "we touched X number of women's lives."

2.) What types of impact do you believe are most important to WIN? Impacts to students, faculty, staff, etc.? Is one stakeholder more important than the other in the eyes of WIN?

Courtney said that WIN mainly cares about impacts to female students, and one of their goals is to get more female students involved in STEM fields. The overall goal of WIN is to create a positive impact on women and support students.

Courtney also noted that WIN is run by a group of female alumni.

3.) How do you think Rigs of Color would fit into the mission of the WIN grant?

Courtney was not sure how Rigs of Color would fit, but she said that it is important for Rigs of Color to demonstrate how there will be a positive impact on women in order for the mission to align with WIN.

4.) How did you define your problem statement in your application and make it evident that the issue to be addressed was important?

Courtney said that she and her colleagues did substantial research, including research on past studies, and internal research on other grant proposals on open education resources. They researched about the "sense of belongingness" and how this supports the growth of students. They looked at literature reviews to further support the important of their work. In her case, her team found that in various forms of literature, multiple male people are often the only people represented. As such, she and her room looked for ways to help bring out the female actors to allow for women to see themselves represented.

5.) What do you believe were the key components or elements of your application that made it a success?

Courtney said to get an idea of what WPI and WIN are looking for. It is important to come up with a strategic plan and make those alignments. For her project, she wanted to highlight the value of course representation in materials that faculty could implement for their students (OER – Open Educational Resources). You also need to be able to determine a strategy for measuring impact. For instance, they surveyed students to determine how many students actually paid for textbooks (not many) and used this as a base for make their argument on the value of open educational resources.

6.) Were metrics and/or statistics important to include in your application?

Courtney said that is important to be able to have a good argument as to why there is a need. You should be able to tire this in to helping female students and have a way to measure the impact of what you are doing. In this way, metrics are very important. You need to be able to measure both your short-term and long-term impact. How will it impact female students and how many accessing the services provided are women or BIPOC (Black, Indigenous, and People of Color)? For Rigs of Color, Courtney suggested considering how many gamers/programmers will have access to the character rigs in the first year and

how many games are those characters being used in. Statistics/data are definitely important. Could further consider how many of those using the character rigs are women and how many women are using the games that the characters are in.

7.) How important is scalability and sustainability, and having a plan in place to ensure both?

Courtney said that both are very important to WIN, and having a plan in place to ensure both is of equal importance.

8.) How did you demonstrate the potential impact and scalability of your project in the application?

For her project, Courtney and her team focused on targeting faculty in a specific department for the use of OERs. They looked at the percentage of students in those departments and began looking at the implementation of OERs in introductory classes at WPI. They considered if OERs are used, how many women might be exposed to it. Thought about the male/female ration and how many women would be impacted if OERs were implemented for those classes. Since

OERs allow for open access to educational material for everyone online, the potential impact is amazing.

9.) What kinds of supporting materials or documentation, if any, did you include with your application, and how do you think those helped to enhance your proposal?

Courtney said that with how the application was set up, there was not really a place to do that. There was not even a real place for a works cited, so it was submitted without any supporting materials.

10.) Were there any challenges you encountered during the application process, and how did you overcome them?

The main challenge was trying to fit all of the information that they wanted to include for each questions into the tiny boxes that they were provided. They had to be clear and concise for each question and cut down on the amount of words that they initially had in order to make everything fit. This process took time and it is important to start early.

11.) Since WIN gives out a limited amount of funds for projects, how did you ensure that your proposal was innovative and unique compared to other applicants?

Courtney said that they talked about their project passionately in their proposal and demonstrated a need for it at WPI. One thing they cited that that OERs have the potential to make WPI more affordable for prospective students, and they also highlighted how there are currently very few faculty at WPI working with OERs, which Courtney believes was one of the draws (making their proposal stand out).

12.) How did you approach the budgeting and financial aspects of the grant application, such as the allocation of funds and how they would be used?

Their full-funded budget included giving faculty money to fund OERs in the classroom, conferences for books, etc. They wanted for there to be faculty professional development funds, and they wanted to be able to pay student workers and outside consultants. Courtney stated that WIN has a limit on feeding

people, because they consider that "frivolous spending," so she stresses the importance of looking at how their budgeting works. Courtney said to consider the cost of everything that you plan to include in your budget and when it comes to cutting that budget in half for partial funding, take out the least important things. Rank everything in the order of importance to get an idea of how to budget effectively. In her case, they had to get rid of multiple expenses, including having another student worker, in their budget with partial funding.

13.) What advice to you have for someone who is applying for the grant for the first time?

You should look at the rules and understand how to budget. There are limits on what you are allowed to budget for. Courtney knows that you are allowed to pay student workers as part of your project budget, but she said there are constraints to worry about. You should look carefully at the application, see what WIN looks for, and determine if the project is a good match, checking WIN's boxes. You should see what WIN is interested it, tie that in with the project, follow their formatting, and highlight why the issue you are addressing is important. To highlight this, you should go into literature reviews and provide evidence to demonstrate that you are not "just making stuff up." You

need to determine how to meet WIN's goals as well as your own and come up with a comprehensive plan, with different phases and a timeline (over a year). You should go month by month, figuring out who is responsible for each step of the application and consider the actions affiliated with it. You should determine your research questions and how you are going to answer it. Take a systemic approach and have a clear plan in place for measuring your impact. You need to come up with a narrative as to why your project is a good match for WIN and create a strong emotional connection that will draw them in.

4.5 Interview with Anna Gold & Lori Ostapowicz-Critz

We also conducted an interview over zoom with librarians Anna Gold and Lori Ostapowicz-Critz. Anna and Lori both worked with Courtney Kurlanska on the project EMPOWER. In this interview, less questions were asked due to both participants' willingness to help us determine how Rigs of Color would best fit into the WIN Grant. Furthermore, both Anna and Lori provided us with helpful information and tools to look into that could be beneficial for writing the grant application for Rigs of Color.

Below is a summary of the interview:

1.) Do you feel that there are particular types of projects that the WIN organization might be more likely to fund? If so, what types of projects?

After describing Farley's project to them, both Lori and Anna agreed that this project sounds "very compelling." Anna mentioned that student-driven, creative projects led by faculty are very likely to receive funding, since WIN is always looking for new, innovative projects. What Farley is doing by involving students in the creation process of diverse character rigs aligns with the idea of "student-driven" and his commitment to inclusivity/diversity is something that both Lori and Anna believe that WIN will appreciate.

2.) Could you share some tips on how to identify a compelling project or initiative that aligns with the objectives of this grant?

Anna and Lori both said to design something that will impact women in some way or diverse people/people of color. They both think what Farley is doing already aligns with the objectives of this grant.

3.) What types of impact do you believe are most important to WIN? Impacts to students, faculty, staff, etc.? Is one stakeholder more important than the other in the eyes of WIN?

Both Lori and Anna believe that impacts to students are more heavily favored. WIN likes to see that students are getting involved in faculty work, which is something that Rigs of Color is already doing.

4.) How do you think Rigs of Color would fit into the mission of the WIN grant?

What he is doing by training young artists in the field and creating characters of color/women is something that already aligns well with the mission of WIN according to Lori. Anna agrees that the idea is "very promising." The funding is set up for the spring and much larger than last year according to Anna. Anna said that this is very promising. Anna also said that many faculty are interested in programming, so maybe Farley could reach out and find some more people to work with and develop a larger cohort for the project. Again, Anna states that Farley's idea is "very exciting." Lori also said that maybe Farley could be one of the fellows under the grant for next year (not this year) and he could participate

as a fellow in the WIN grant. This is because the project is very strong and innovative on its own and it would be a good match with one of the fellows according to Lori. Most fellows receive around \$2500, so not a huge amount, but still an option.

5.) How important is scalability and sustainability, and having a plan in place to ensure both?

Both are equally important and closely linked according to both Lori and Anna. It is very important to demonstrate these along with the potential impact the project will have in the WIN grant application.

6.) Were metrics and/or statistics important to include in your application?

Lori said that they did not include much statistics in their application. They included things like what percentage of money is made by students, info from surveys that they conducted which were very informal with student participants on using Open Educational Resources. Anna said that many people in the past, themselves included, conducted informal surveys/interviews and that was what they put in their application. They also found statistics on online sources that they cited. They talked about Marja Bakermans from WPI who conducted surveys on her students to understand their sense of belongingness. Below is what Marja did:

At the end of the course, I surveyed students about their sense of belonging in my course compared to at WPI with questions modified from the Sense of Social Fit Scale (https://sparqtools.org/mobility-measure/sense-of-social-fit-scale/#all-survey-questions; Walton and Cohen 2007). Students taking the course reported they 'strongly agreed' they get along better with others (62% vs 47%) and felt more comfortable (71% vs 61%), included (79% vs 53%) and accepted (88% vs 53%) in this course compared to at WPI.

7.) Are there any specific resources that you found helpful during the application process that might be helpful for Rigs of Color to consult?

They did not use these resources in their application, but they sent over a couple different sources to look at for metrics/statistics and other information that might be helpful to include in the application:

- -https://amt-lab.org/blog/2019/10/gender-amp-ethnic-diversity-in-video-games-exploring-core-games-inclusivity-problem (Carnegie Mellon)
- -Attitudes Toward Sexual Orientation and Gender Identity in Online Multiplayer Gaming Spaces (Psychological Reports, 2023)
- -Setting the Game Agenda: Reviewing the Emerging Literature on Video Gaming and Psychological Well-Being of Sexual and Gender Diverse Youth Di Cesare, D.M., Craig, S.L., Brooks, A.S. (2023) Games and Culture
- -https://www.statista.com/statistics/1133170/positive-experiences-video-game/
 - 8.) What advice do you have for someone who is applying for the grant for the first time?

Both Lori and Anna said to reach out to Gillian Smith in the Interactive Media & Game Development department (head of IGD), as she would likely be someone who would be very interested in helping Rigs of Color move forward. They both worked with Gillian in the past and feel that she would be a very interesting informant. They noticed she is already working with Farley on a learning community she is co-facilitating titled Investigating the Role of GPT in the Curriculum. As for further advice, they said to continue working on developing a timeline for the project and determining an estimate of how many people will be impacted. Beyond that, both Lori and Anna agree that this is a very promising project that would likely be of interest to WIN.

4.6 Interview with David DiBiasio & Kristin Boudreau

We conducted a Zoom interview with David DiBiasio and Kristin Boudreau, who worked on a project titled PBL to Go: Bringing STEM Experiential Learning to a Classroom Near You. Kristin Boudreau is from the Humanities & Arts department and David DiBiasio is from the Chemical Engineering department.

Below is a summary of the interview:

1.) Do you feel that there are particular types of projects that the WIN organization might be more likely to fund? If so, what types of projects?

Kristin said that the project should advance the inclusion of women in STEM, along with any other minorities. However, the main focus should be on women. There should be a support system for women in STEM, and other underrepresented populations are also important. David agrees that the focal point should be inclusion in STEM or a project that advances an inclusive environment for women. For their project, they focused on other underrepresented populations, hiring student workers, and men and women of color.

2.) What types of impact do you believe are most important to WIN? Impacts to students, faculty, staff, etc.? Is one stakeholder more important than the other in the eyes of WIN?

Kristin said that one stakeholder is not necessarily more important than the other. WIN cares about impacts that affect all women, not just female students and not just female faculty/staff members. They do, however, care about diversity, like having a project that involves queer students or people of color... But the main focus is on women. WIN does differentiate between the different stakeholders and the different types of projects. David and Kristin both suggested looking into IMGD's diverse student population, seeing how racially diverse it is, and getting data on that. We can get the numbers, such as the percentage of women in IMGD classes ... and budget-wise, they recommended Farley use the moment to hire summer research students to help. Farley should make a commitment to recruit female game developers, women of color, etc. He should consider how many character rigs are women and how many are of color.

3.) How important is scalability and sustainability, and having a plan in place to ensure both?

Both David and Kristin stated that scalability and sustainability are equally important, and to get funded by WIN, it should be clear that there is a plan in place with the project to ensure both.

4.) What do you believe were the key components or elements of your application that made it a success?

They hired women and men of color for their project and had an idea that advanced minorities/underrepresented population. They tried to get all stakeholders involved, including female teachers. There was even a male middle school teacher. They tried to diversify and not do something for one person only, so it was not all about women, and they believe that this made their project a success.

5.) Were metrics and/or statistics important to include in your application?

Kristin said, yes, they do want numbers. They want to know that the project is going to impact X number of girls and women. Farley can get numbers on how many girls/women, people of color see themselves in the character rigs. Maybe women of color. Farley should give numbers based on research that demonstrates the number of female video game users and connect it back to STEM. The video games should not just be for entertainment, they should appeal to black girls/girl of color and bring them into STEM somehow. He should be teaching with assignments that involve STEM-based education/digital learning in order to train young artists and appeal to WIN.

6.) What kinds of supporting materials or documentation, if any, did you include with your application, and how do you think those helped to enhance your proposal?

There was not a place to submit anything. However, both David and Kristin said that if the application allows for it this year, it would not be a bad idea to submit something additional that might bolster the application.

7.) Since WIN gives out a limited amount of funds for projects, how did you ensure that your proposal was innovative and unique compared to other applicants?

Kris and David worked with other faculty, including Curtis Abel, in the past. They worked cross-disciplinary. David displayed a poster that demonstrates what their project involved. They had a project that involved helping women in different underrepresented regions globally when it came to climate changes, COVID, and other factors. They engaged middle school teachers and students, and their project was not "women only" according to David. They knew they had to prioritize women, but they accepted everyone who was qualified to work with them. The approach is to appeal to women of color, men of color, minorities, first-generation students, etc. Taking the focus and shifting it to different types of populations, not just women, is something they believe helped make their project stand out to WIN.

- 8.) Do you feel that cross-disciplinary collaboration is important to WIN?

 Yes, they worked with faculty members from other departments and both Kristin and David believe this helped them diversify and make their project stand out.
 - 9.) What advice do you have for someone who is applying for the grant for the first time?

Kristin and David said to start early and get a plan in place to start the application, considering the budget, and who the project would directly/indirectly impact. For Farley, Kristin said his videos could be used for other STEM platforms if he is interested in doing that. He could put his training videos on National Geographic or something similar and provide a link to them in his application. This might help him stand out, and again, it's important to connect the project to STEM. It's not just video games for recreational use, it's using these video games to education/train people in STEM (ie. Technology).

4.7 Interview with Curtis Abel

We conducted an interview with our advisor, Curtis Abel, who was a previous grant recipient. Curtis worked with other faculty members from various departments on a project titled "Goat Tank." The proposition was to advance all female students at WPI (particularly those in STEM) through an annual series consisting of hands-on training, leadership experiences, workshops, collaboration, and other immersive programs for female students, culminating in an end-of-year competition called "Goat Tank: Maximizing Value for Humanity." The idea was modeled off of the television program "Shark Tank," and through this project, the goal was to design a program "so that every female student participant

confidently experiences the adrenaline and seizes the moment of leading a highperformance team in a high psychological safety environment."

Below is a summary of the interview:

1.) Do you feel that there are particular types of projects that the WIN organization might be more likely to fund? If so, what types of projects?

They are more likely to fund student projects or projects that incorporate student participation in some way. There needs to be bigger numbers within Rigs of Color to demonstrate how more students are going to be impacted. You need to consider how you engage with a hook statement and bring the project to life. Numbers are important. There should be lots of literature and citations that backup the claims. You should make an emotional story and bring the problem and need to life. It is important to remember that the problem and need are two different things. Think about the ways to develop skills and how active learning is involved. If you don't do something repeatedly, you will not develop these skills. You need the repetition. You need to tie the data to the problem and the need. Storytelling is important and so is looking at WIN's mission statement.

2.) Could you share some tips on how to identify a compelling project or initiative that aligns with the objectives of this grant?

You need to focus on the need and not go right to the solution. You can tailor the project to the grant, but it may not fit exactly. However, you will need to tailor it to the grant in order to receive funding. Title of the grant is also very important, get them curious about it, interested in it. WPI is all about societal impact. What is the impact? Assess the impact, important to have assessment person on the team.

3.) What types of impact do you believe are most important to WIN? Impacts to students, faculty, staff, etc.? Is one stakeholder more important than the other in the eyes of WIN?

They care more about impacts to students over impacts to faculty/alumni.

4.) How important is scalability and sustainability, and having a plan in place to ensure both?

They are both very important. However, sustainability is more important than scalability... but, again, both are important. Scalability is all about having a bigger impact, and sustainability is about not wanting to do something one off.

5.) How did you demonstrate the potential impact and scalability of your project in the application?

You should take a look at objective 1 within the proposal. One thing that was done was conducting surveys to demonstrate the impact and scalability. There was participation data and focus groups were also conducted. There were assessments and reflections, and they interviewed the faculty who participated. Curtis said that if he did this over again, there would have been a storytelling aspect within and a pre-pitch and post-pitch video to qualitatively show the difference. They conducted a series of six workshops, and after going through the workshops, they could have had the female students pitch for the first time, demonstrating design thinking and value creation to train women in the teams.

6.) What do you believe were the key components or elements of your application that made it a success?

The executive summary was very compelling, but WIN does not have that anymore in the application. They change the application overtime, so it is important to stay up to date with the criteria and what they look for. You need to bring it to life, bring the need to life and the problem Needs to tie in with how you're going to approach addressing that problem. How is what we are doing going to help address that problem and satisfy that need?

7.) Were metrics and/or statistics important to include in your application?

Yes, they were both very important to include.

8.) Was storytelling an important aspect of your application?

Yes, it is important to have this. However, Curtis mentioned that he wished they included more examples of storytelling in the application. Usually people act on emotions, which is why this is important to have.

9.) What could I as a student do to help Farley bolster his application?

Storytelling can be tied to the statistics, since again, most people make decisions based on emotions. You need to bring the problem/need to life, short story is important and impactful. Want to add on and not duplicate Story was in executive summary in what they did. Numbers are important. Also, there should be a female lead and the project should be tied to impacts to women. In their project, they had a female lead the groups and it was fifty percent women. However, it should not be all about women. Diversity is also important, people from different cultural/ethnic backgrounds, men, etc.

10.) How did you approach the budgeting and financial aspects of the grant application, such as the allocation of funds and how they would be used?

They had to consider partial vs full funding. They went big the first time around, going for the full grant amount. They needed to figure out the X number of things they were going to do with the project and how they would recruit teams. Since they did not have time, they needed to hire out somebody. They hired a female student to help with competition for example. They later cut back on funding on the basis of their needs. They felt that the accomplishments were most important, thirty workshops, 230 participants, highlighting this was most important. If at first the project did not work out, WIN does not care how impactful need is ... You need to be able to execute it in order to fund it.

11.) Were there any challenges you encountered during the application process, and how did you overcome them?

There were not really any problems. The assessment was the biggest thing and the resources that they need. Most of the money went towards paying grad students, and they needed the resources to make this happen. Faculty and staff have other things to do. Curtis mentioned he got pulled into this. He was working across disciplines and was very busy. It was an extra for what he was doing. They included entrepreneurial mindset learning into the grant, into the approach to satisfy this need. Curtis aligned current job with the grant. It was double-dipping with work activity, which was a challenge.

12.) What kinds of supporting materials or documentation, if any, did you include with your application, and how do you think those helped to enhance your proposal?

Not allowed to submit anything additional. You can submit something that is easy to read if they allow it this year, but they do not have much time to read so much ... if anything additional is included it should only be meant to add value. WIN had them do a poster session and demonstrate the impact to them; they had a poster day. He would have added that poster as reminder of the impact, pictures showing the impact of the

participation. Had a website they developed ... Link to website, should provide this in the application. If you want to read more, should go to landing page that opens your eyes. Going to want to read more.

13.) Do you feel that cross-disciplinary collaboration is important to WIN?

Yes, it is important. Curtis worked with people from other departments. He also mentioned that measurability is important along with the assessment.

14.) Are there any specific resources that you found helpful during the application process that might be helpful for Rigs of Color to consult?

Keep looking at other applications, leverage resources of the library, get statistical data. Look for other faculty that deal with assessment, go through value creation workshops, workshops and programs are all about how you identify and address a need in the marketplace. It is difficult to identify the need. Consider the hook statement, what is the need, benefits, the value. Remember that value is benefits divided by the cost. Do not need to include alternative ways to do it.... But having framework and bringing it to light in a clear and concise way is important. Value creation workshop and value creation are important to research.

15.) What advice do you have for someone who is applying for the grant for the first time?

Go seek out others who have won the grant, have more conversations with them, and keep in mind the impact to women, and the impact you are having on the goals and mission of WIN, get WIN engaged. Ask them to be a judge in the competition. Important to engage them, how to promote the organization, have an audience, make sure the WIN logo is there. What is in it for the others, the other stakeholders ... As an investor, how are you going to make money? Societal impact? Use words that they use on their website so that they understand and can make the direct tie. Do not want to have to explain something. With Farley the numbers are not big enough ... Should consider how many people in IMGD and how many are women? Small amount might participate - how many will he be impacting? How can you change what he's doing to impact a larger audience? How does it scale, and what are the plans for sustainability/scalability? Pitch it as a pilot ... If you do not have the numbers, have a plan for scaling.

4.8 Interview with Donna Stock

We conducted an interview over Zoom with Donna Stock. She is the Vice

President of University Advancement and is part of WIN's Executive Committee.

She was asked a series of questions regarding WIN's application process and what

WIN looks for in projects when they review applications.

Below is a summary of the interview:

1.) Could you provide an overview of the Women's Impact Network Grant's goals and objectives?

WIN empowers women to come together as a collective force, supporting WPI's impact globally. They wish to provide unique ways for women to share imagination, inspire innovation, and lead with purpose through the projects that they choose to fund. WIN supports programs/projects that advance women in STEM and align with WPI's Plan, "Lead with Purpose."

2.) Do you have any tips for identifying a compelling project or initiative that aligns with the objectives of WIN?

The project should advance women in some way and propel female leaders in the world of STEM. WIN funds many types of projects, but they are mainly focused on advancing women in STEM. She mentioned there were info sessions for questions on WIN, which are usually held in C-Term.

3.) What are the key criteria that the committee considers when evaluating grant applications?

Part of the criteria is getting more women and diverse individuals involved in STEM. They want to elevate women in STEM at WPI in a variety of ways. They are very broad in the types of programs that they have funded in the past, and they are looking for new ideas. For instance, they helped to fund the SWEET Center,

which later led to a sub-grant being created. Sometimes it leverages additional funding in the future/other possible sources.

4.) How do you prioritize different types of projects and initiatives?

They group the projects into small, medium, and large requests based on funding. There is not really a process of prioritizing, but they do group based on the size of the grant request.

5.) What impact or outcomes are you looking for in the projects you choose to fund?

In the projects they choose to fund, they are looking for the opportunity to initiate/continue to grow something. They want something that is continuous and will continue to grow overtime. Again, there is a focus on advancing women in STEM and advancing research.

6.) Can you provide examples of past projects that have been funded by the Women's Impact Network Grant?

There have been many projects in the past that had a positive impact. One of the projects that was funded was the "Period Project." This was about two years ago, and the goal was to make sure women at WPI had access to tampons/pads in every bathroom on campus.

7.) Are there any specific themes or areas of focus that the committee is particularly interested in for this upcoming grant cycle?

There are not any specific themes/areas of focus that they are interested in for this particular cycle. They left this pretty broad, because they are interested in a variety of projects and are always open to new ideas.

8.) How do you assess the potential long-term sustainability of a project after the grant period ends?

It is important to have a plan in place to measure the project's sustainability. This varies with the type of project ... But the project should not be a one-time thing; it

should be continuous and measurable. With the Period Project, there was a long-term impact, as female students at WPI had access to tampons/pads in many oncampus bathrooms.

9.) What role does diversity and inclusion play in the committee's decision-making process?

They are very inclined towards projects that foster diversity and inclusion, so this does play a big role in their decision-making process.

10.) What is the typical evaluation process for reviewing and selecting grant applications?

They will reach out to people if they need clarification or if they see something unusual in the budget. The committee usually has one designated person who reaches out and asks the questions for clarification. They are a very nice group of women composed of alumni, staff, and faculty members. They pool all of their gift funds together to make decisions on behalf of all of the donors. There are hundreds of donors a year, and they bring in about 20 to 50 thousand dollars a year. They have seen a variety of applications, they look for things the school might budget for, and many reviewers are in their 7th year.

11.) What advice would you give to someone who is applying for the Women's Impact Network Grant?

You should ask as man y questions as you need before applying to make sure you understand what WIN looks for in a successful application or successful project. The staff are women themselves, and they are looking for projects that will have a positive impact on the female community. As such, when submitting, you need to ensure that your proposal is something that can actually be funded. It varies from year-to-year who receives funding, and it is broken up into small, medium, and large grants. They are looking for sustainability in the projects that they fund.

12.) How does the committee support grantees throughout the project lifecycle?

It is a busy time, but they are typically available to answer any questions an applicant may have during the application process. They also tend to reach out to applicants if something in the application is unclear or if they need additional information/clarification on something.

13.) Is there anything specific you would like applicants to know about the Women's Impact Network Grant and the selection process?

The committee takes it very seriously, since they represent all women donors and want to bring a positive reflection to WIN. They want to be recognized in having a positive impact on women in the community. Again, it's important to have a plan and ask questions like how are you going to grow in the future with your project. Budgeting is also another important aspect, and WIN is very conscientious about this. They may come back to you and give you other options for the funding and the budget. It's a process, and they choose what to fund.

Additional Questions:

14.) Are scalability and sustainability equally important when it comes to the application process?

Yes, they are linked, and both should be addressed when drafting out the application.

15.) Is it important to have numbers on how many people will be impacted?

Numbers are not super important. You should just give an estimate or range on how many people will be impacted and that should be sufficient. Again, they will reach out to you if they have any questions while looking through your application.

16.) Is storytelling an important aspect of a successful grant application?

Not necessarily, but it could be an important aspect, since it could help bring the project to life so that the committee can truly visualize the project in action.

17.) Is cross-disciplinary collaboration important?

It's not a must, but you certainly could work cross disciplinary, and it usually helps to have more than one person applying. Farley should look for co-applicants to work with. WIN wants their dollars to be used for good purposes.

18.) What is the timeline for the application review process?

It's usually a process that takes place over several months. The process usually concludes in April when they have all of their WIN events. They usually launch the application process in the Fall of each upcoming grant year.

4.9 Interview with Avery Closser

We conducted an interview with Avery Closser over Zoom, who is part of WIN's Engagement Committee. She has been with them for years, both as part of the committee and as a grant recipient. In fact, she has been a WIN grant recipient for four years, and since then, she has been on the reviewing committee. She also earned her Masters and PhD at WPI.

Below is a summary of the interview:

1.) Do you have any tips for identifying a compelling project or initiative that aligns with the objectives of WIN?

Avery mentioned that she was a WIN grant recipient for four years and has been on their reviewing committee since. WIN is very important to her. She said that WIN has changed over the years that she has been involved. She stated that WIN has begun using funds for research, which is not something they usually do. They have also been having an "identity crisis," moving the focus from women to more broadly inclusivity and more diverse populations. They are now in a state of determining who/what to fund. For Rigs of Color, she likes the idea of diversity in games/representation, bringing students in from different backgrounds to work as contributors, paying them for their contributions, and giving them a platform to "bring their identity to light." Avery suggested making Rigs of Color less research focused and making it more about changing the space of video games and how they can be used in order to give more representation to WPI students. We should pitch the project as being more about inclusivity and representation in order to reach WIN, since this is what they look for. She also mentioned that the applications are easy to write, they do not have to be research heavy. You can include some stats that demonstrate how most video game characters are male, for example, and look for a grounding point to highlight why this matters, since the WIN committee may not be well-versed in video games.

2.) What are the key criteria that the committee considers when evaluating grant applications?

They will score your plan, the purpose, how it aligns with their mission, and direct/indirect number of people impacted. You can think more broadly about the impact. You should have an evaluation plan, thinking about how you will know your project will make a difference, how it will be assessed, and if the budget falls within guidelines. You should also make sure the budget is maximizing the number of people it can impact, focusing more on students and not on faculty, not on the "fluffy stuff." For instance, WIN might be interested in a luncheon for students rather than the concept of snacks/coffee for faculty once a week. You should look at the artial vs full-funding, look more closely, see how your incorporating STEM into your project. However, this is mainly for projects over 25,000 dollars.

3.) What impacts or outcomes is WIN looking for in the project they choose to fund?

They really want to help students. Their focus is on helping women, but this is ongoing and can apply to other groups of people who are underrepresented. WIN is trying to branch out to figure out who they want to support. They want impacts that are both local and global, beyond WPI. They would like the direct impacts to artists/animators within Rigs of Color, since they are contributing artworks, and they would like to see these artists getting credit/compensation for their work. To put it more broadly, they would like the idea behind representation across video games. You should give examples of hope characters have already been used/how they might be used in the future. You should consider how many people will be reached both directly and indirectly as well. Avery mentioned that when she was at WPI some years back as a grad student, only about five percent of students identified as Black ... so for WIN, the goal is to foster a more inclusive environment for people in general, not just the students here, and to consider how WPI can change its representation for minorities.

4.) How do you assess the potential long-term sustainability of a project after the grant period ends?

Avery said not to worry much about this. Impact-wise, it should be sufficient to have an estimated number of how many people will be impacted. If he wins the grant, Farley will have two years to use the money, so he will not really need to think about the sustainability piece right away. He can think about what he did on a smaller level, involve more students in his project, and pilot test his project. Basically just put what your feel comfortable with and do not stress over it. They are very colloquial, unlike most grant applications. They are good with normal language. Treat the application like you are writing it for people, not a research grant panel.

5.) What role does diversity and inclusion play in the committee's decision-making process?

Avery said she did a lot as an ambassador for WIN, but was not really high up in the committee. For the application, tackle it broadly or stick to the niche of women. They care about diversity and inclusion, but they are torn with identity. There are plenty of underrepresented women in video games, so you should get the numbers... consider how many gamers are female and how many video games characters are female. Basically, check the women box, and Farley should make sure he recruits females to work on his project.

6.) What advice would you give to someone who is applying for the Women's Impact Network Grant?

Farley should get at least one female applicant to apply for the grant ish him, so that WIN can see some representation. It should be equally divided on the application, and not just Farley applying. The project needs to have voices from different levels, as to add some diversity. He could find some underrepresented students, like people of color, trans/gay students to work with him for example. There are also some info sessions closer to January that may be beneficial for the application process. Beth Alletto is a good contact for this. Also, make sure to reach out to people and ask questions along the way as needed.

5. Recommendations/Deliverables

5.1 WIN Grant Application Recommendations

Based on the interviews conducted with both people on the WIN committee and people who have won the grant in previous years, I have drawn the following conclusions (which will be further explained in greater detail based on important questions asked in the WIN grant application following the bullet points below):

• It is important to have more than one applicant who should be applying for the grant alongside Farley, and at least one person who is female. Although you do not have to work with people from different disciplines, based on

some of the interviews I have conducted, it was concluded that this might be beneficial to help diversify. One suggestion for a female co-applicant is Gillian Smith, who is the director of the IMGD department, which is the same department Farley is involved with. Both Lori Ostapowicz-Critz and Anna Gold, who previously won the grant, discussed how connected she is with what Farley does. She was previously part of a professional learning community on open education resources, and both Lori and Anna have worked with her in the past. She is very familiar with the WIN grant as well. I noticed that for the 2023-2024 academic year, she is going to be cofacilitating a Professional Learning Community titled, "Investigating the Role of GPT in the Curriculum" along with Farley Chery (Associate Professor of Teaching, Interactive Media & Game Development), Tim Loew (Executive Director, Massachusetts Digital Games Institute – MassDigi), Stacy Shaw (Assistant Professor, Social Science & Policy Studies), and Yunus Telliel (Associate Professor, Humanities & Arts). Since Farley already has connections with her, he might want to reach out to her and see if she would be interested in being a co-applicant for the WIN grant.

WIN cares more about impacts to students, mainly female students at WPI.
 Farley should try to involve more female students from IMGD in his project,

for instance female students of color who may feel underrepresented in the video game/animator community. WIN would like to see Farley involve more students in his work and have them take a more active role in helping Rigs of Color become successful in its mission.

- Having general numbers to affirm how many people will be both directly/indirectly by this project is very important. They do not have to be exact, because you will likely not know how many people will be impacted at first, but if you can come up with a general estimate of how many people will be impacted, that is perfect. Farley can consider how many students are going to be working on his project with him (people of color, trans/gay, female students, etc.) and provide WIN with some numbers. Next, he can consider how many animators might use his character rigs in their video games and how many people will watch his training videos on animation/game design.
- It is very important to connect the project to STEM and the WPI Plan. WPI is a STEM school and part of WIN's mission is to advance STEM fields at WPI and get more women actively involved in STEM fields, reducing the stigma behind female engineers, female game designers, etc. WIN wants women

- to take a more active role and STEM and become leaders through the projects that they choose to fund each year.
- Both scalability and sustainability with the project are very important, as they are linked. The project should be measurable in a way where you can demonstrate how many people will be impacted by the project and the project should not be a "one-off" thing. The project should be something that can be continued as part of WIN's mission to advance women in STEM (particularly female students at WPI)
- Storytelling is not necessarily a requirement, but a recommendation by many of whom that were interviewed. The reasoning behind this is that people tend to make decisions based on emotions. So, if you use storytelling as a mechanism of appealing to the emotions of the WIN committee, demonstrating why the issue to be addressed by the project is important/highlighting the need, there is a greater chance of receiving WIN funding.
- Since WIN has a limited number of funds that they give out each year, it is important to consider how the funds are going to be used. Farley mentioned that the funds would be used to pay student contributors who have worked on his project with him and that they would also be used to

develop training materials. However, he should have a general breakdown of how the funds will be allocated for different aspects of his project. Since he is aiming for the higher end of the funding (\$50,000), he should also consider what his project might look like if it only received partial funding (ie. 25,000 or less). He should rank aspects of his project by order of importance, picking only the most important aspects to allocate funds towards.

• Since Farley's project is unique and innovative, according to many of the people that were interviewed, WIN would likely be very interested in his project proposal. They are always looking for new ideas and what Farley brings to the table is creative and something that very much aligns with the mission of the WIN grant. Farley has already recruited several female contributors who have helped him with Rigs of Color and his project is very much influenced by STEM culture, relating most to the technology aspect of STEM. His project also has the goal to foster diversity and inclusion, which is something that factors into the decisions that WIN makes in choosing which projects receive funding. Furthermore, he is not just focused on women, as he is focused on people of color and other minority groups who

are underrepresented in the world of gaming. This is again another aspect of his project that relates closely to the objectives of WIN.

Please see below for an outline of how to approach some of the different questions that WIN asks in the application:

1.) PROJECT PLAN:

-Provide a detailed description of your project including its objectives

Consider ...

- Who is the target audience?
- What is the project staffing?
- What is the project schedule?
- What would your project look like with partial funding?
- Is this proposal a renewal of a previously funded grant?

Overview: Rigs of Color is an organization committed to fostering diversity and inclusion within the gaming industry. Rigs of Color aims to address the underrepresentation of artists of color in the gaming world by providing resources, support, and a platform for them to showcase their work. The primary objective is to launch a transformative project by the summer of 2024, leveraging

the skills and talents of Worcester Polytechnic Institute students to create a robust digital platform and community for artists of color.

Project Objectives:

- To empower artists of color in the gaming industry by providing a platform to showcase their work.
- To increase diversity and inclusion in the gaming community.
- To provide WPI students with real-world experience in a diverse and dynamic digital project.
- To foster a supportive and vibrant community where artists of color can network and collaborate with one another.

Target Audience: This project primarily targets artists of color within the gaming industry. This includes illustrators, animators, 3D modelers, concept artists, and other creators. Additionally, the goal is to engage gamers and game developers interested in supporting diversity in the industry.

Project Staffing: The project will be staffed by a combination of Rigs Color members and students from WPI. This collaboration will include artists, web developers, project managers, community managers, and advisors. The WPI students will bring their technical expertise and innovative ideas to the project,

working closely with Rigs of Color members who have a deep understanding of the needs and challenges faced by artists of color in the gaming industry.

Project Schedule:

- Initiation (Now-Summer 2024): Project planning, team formation, and resource acquisition.
- **Development (Fall 2023-Spring 2024):** Design and development of the digital platform, content creation, and community building.
- Testing and Refinement (Spring 2024): Thorough testing, feedback collection, and platform refinement.
- Launch (Summer 2024): Official launch of the digital platform and community.

Partial Funding Scenario:

While the primary goal is to secure full funding for the project, Rigs of Color is prepared to adapt and scale the project based on available resources. Partial funding will allow for Rigs of Color to reduce the scope of the project, possibly delaying certain elements like marketing or community engagement initiatives. The core development and launch phases remain essential, and with partial funding, Rigs of Color would focus on these aspects to ensure the project's success.

Grant Renewal:

This proposal is not a renewal of a previously funded grant. It represents a new and exciting initiative, in collaboration with WPI students, that aims to make a significant impact in the gaming industry by creating a more inclusive and diverse space for artists of color and other minorities.

2.) PURPOSE

- What significant problem or need is addressed by your project?
- Why is this important?

There is a significant lack of representation of various groups of people in the media, specifically in the video game realm. The majority of playable characters in video games are Caucasian men, and those who are Black or Hispanic, among others, when they are portrayed as playable video game characters are more often than not inaccurately represented. To highlight the lack of diversity in playable video game characters, there was a DiamondLobby study that compiled over 100 games released in the past five years, between 2017 to 2021. The games that were selected in this study were the 10 highest selling games from each of the years, along with every other major game release from the biggest gaming publishers including Activision, EA, Nintendo, Ubisoft and more. Games that allowed for one to play with a fully customisable character

were removed from this study, which left them with a list of preset characters only. This reduced their final list to 93 of the biggest games released over the past five years. From this study they found that 79.2% of main characters in games are male, 54.2% of main characters in games are white, and 8.3% of games had female main characters of Black, Asian or other ethnic origins. Furthermore, of 810 characters across the games they studied, 66.5% were male characters, 27.7% were female, and the remaining 5.8% were non-binary. In addition to this, 31.7% of games had only male characters and 5% of games only had female characters. This means that there are over six-times more games with only male characters than there are with only female characters.

Rigs of Color also seeks to address the lack of diversity in the field of video game design. According to a survey conducted by the International Game

Developers Association (IGDA) in 2021, around 62% of game developers identify as men, while only 30% identify as women. The remaining 8% identify as non-binary or other genders. Furthermore, the survey found that 66% of game developers are White/Caucasian and only 34% are of Color, including those of African American, Hispanic, or Asian descent. In addition to this, a study titled titled "The Gender-Equality Paradox in Science, Technology, Engineering, and Mathematics Education" by Stoet and Geary (2018) analyzed the gender

representation in various STEM fields, including the video game industry. From their results, they concluded that the representation of women in the video game industry was relatively low compared to other STEM fields of work.

Rigs of Color aims to provide an inclusive environment for minorities to share their creativity with fellow animators in game design. Students at WPI have the opportunity to showcase their talents and share them with the world. Through Rigs of Color, the lack of representation in video games, both in animated characters and in the people who develop them, will be directly addressed.

Does the project address a gap in existing WPI programs?

Yes, Rigs of Color addresses a significant gap in existing WPI programs.

While WPI offers a variety of technical and educational opportunities for students, there is a distinct absence of programs dedicated to fostering diversity and inclusion within the gaming industry, particularly with a focus on artists of color and other minorities, including women. The gaming industry has long struggled with diversity, and there is a critical need for initiatives that empower and support underrepresented groups.

The project leverages the unique strengths of both Rigs of Color and WPI students to create a digital platform and community specifically designed to

address this gap. It combines WPI's technical expertise with Rigs of Color's deep knowledge of the challenges faced by minority artists in the gaming world. By doing so, it not only complements existing WPI programs but also contributes to a broader, more inclusive educational landscape.

What makes this project innovative?

The project is innovative in several ways. To begin, it creates a specialized digital platform and community for minority artists, such as women and people of color, in the gaming industry. This platform offers a unique and tailored space for animators to showcase their work and collaborate with like-minded people. This targeted approach distinguishes the project from generic gaming platforms.

The project further paces a focus on addressing diversity and inclusion gaps within the gaming industry. It actively promotes the work of artists of color and seeks to change the status quo by providing them with a supportive, inclusive space. The collaboration with WPI student in itself is also an innovative approach. The involving students in the development and execution of the project, it harnesses fresh ideas, technical skills, and youthful energy to create a dynamic and innovative digital platform. WPI students gain hands-on, real-world experience by working on this project. They apply their technical skills and

knowledge in a live, diverse, and inclusive digital environment, preparing them for future careers while contributing to social change.

In addition to showcasing artwork, the project emphasizes community building. It fosters connections among artists of color and female artists, along with their supporters, facilitating collaborations and mentorships that can lead to innovative and creative projects within the gaming industry. With a planned launch by the summer of 2024, the project is timely and forward-looking. It acknowledges the pressing need for increased diversity and inclusion within the gaming industry, making an innovative response to current industry trends and societal demands. Overall, the innovative nature of the project lies in its specialized focus on diversity and inclusion in gaming, collaboration with students, and its potential to drive positive change in the industry while providing valuable experience to the next generation of professionals.

 Knowing that the committee will review a number of applications and that there is a finite amount of funds WIN grant, what makes your project worth the investment of funds?

Rigs of Color stands out as worthy investment for the WIN grant for various reasons. To begin, it is dedicated to promoting diversity and inclusion, not only in STEM but specifically within the gaming and digital technology industry. This

targeted approach addresses an industry that has been historically underrepresented by women, offering a fresh perspective on gender diversity in technology-related fields. The project empowers female artists and other diverse creators by providing them with a platform to showcase their work. It actively encourages women and minorities to take on leadership roles, fosters and supportive community, and mentorship opportunities, which can have lasting impacts on future careers in technology and other creative fields.

Rigs of Color collaborates with WPI students, providing them with practical experience in digital platform development, community management, and diversity advocacy. The project benefits female students in particular who are pursuing STEM education, enhancing their skills and career prospects. By highlighting successful women and people of color in the gaming industry, Rigs of Color offers visible role models for girls/women and people of color interested in STEM fields. This can inspire and encourage the next generation to pursue careers in technology and creative industries. While the project is focused on empowering women and people of color, it simultaneously promotes diversity and inclusion in the gaming industry as a whole. This broader impact aligns with the social and ethical goals of WIN, extending the influence of the grant beyond the immediate beneficiaries.

Furthermore, Rigs of Color challenges stereotypes by emphasizing that STEM includes a broad range of creative and technical roles. It promotes the idea that both women and people of color can excel in predominantly white, maledominated niches, which is aligned with the broader mission of promoting gender equality in STEM. With a planned launch by the summer of 2024, the project is well-timed to address the pressing need for increased diversity and inclusion in the gaming and technology sectors. It aligns with current industry trends and societal demands for change.

Considering these factors, Rigs of Color represents a unique and promising opportunity to create lasting change in the gaming and technology industry, providing empowerment, mentorship, and education for women and people of color in STEM while challenging traditional gender roles. This project has the potential to make a meaningful impact, aligning well with WIN's mission to advance women in STEM and related career paths.

3.) WIN MISSION

Does your project provide pathways to advance women at WPI? If so, how?
 Yes, Rigs of Color aims to recruit female animators/female students at WPI
 who would be willing to contribute to Rigs of Color and take a more active role as
 leaders in video game design. This thus challenges the idea of video game design

being a "male-dominated" field of work. All groups of people, especially women who are underrepresented in this field, deserve the chance to contribute and create characters that better reflect the many unique individuals in the world.

Rigs of Color recognizes that diverse voices are essential in the creation of video game characters and narratives. By in policing women in the project, it ensures that female perspectives and experiences are integrates into the gaming content, promoting more inclusive and authentic representation. The project dismantles the idea of video game design being a primarily male-dominated field of work and sends a powerful message that all individuals, regardless of gender, should have equal opportunities to contribute to and shape the gaming industry. Involvement in Rigs of Color provides female students at WPI with practical experience in game design, community management, and digital platforms. This hands-on experience can significantly advance their skills and career prospects in a traditionally male-dominated industry. By recruits and involving women in the project, Rigs of Color not only advances gender diversity at WPI but also contributes to a more inclusive gaming industry, where women play an active and influential role in shaping the future of video game design.

 Would your project increase the number of women in STEM fields? If so, how? Yes, the project has the potential to increase the number of women in STEM fields, particularly in the area of game development and technology. By actively involving women, including students from WPI, in the project, Rigs of Color provides visible role models for other women interested in STEM fields.

Seeing successful women in game design can inspire and encourage more women to pursue STEM careers. Participation in the project equips women with practical skills in digital platform development, game design, and related STEM disciplines.

These skills can open doors to STEM-related careers and bolster their confidence in pursuing STEM fields. Rigs of Color fosters collaboration and networking among women in the gaming and tech industries. Building a supportive community can lead to mentorship and career opportunities, further encouraging women to enter and stay in STEM fields.

Women in the project bring unique perspectives to game design and technology, enhancing the creative process and problem-solving. This, in-turn, showcases the value of diverse voices in STEM fields and promotes the inclusion of women in these industries. Through collaborating with educational institutions like WPI, the project establishes connections between women in STEM and academia. This collaboration can facilitate educational pathways and support for women pursing STEM-related degrees. In summary, by actively involving and

empowering women in the gaming and digital technology sectors, the project has the potential to inspire, equip, and connect women interested in STEM fields. It contributes to breaking gender barriers and fostering a more inclusive and diverse STEM workforce.

 Would your proposal create a positive difference in the extended WPI community? If so, how?

Yes, the proposal has the potential to create a positive difference in the extended WPI community in several ways. The project actively promotes diversity and inclusion within the WPI community and the broader gaming industry. This commitment fosters a more welcoming and equitable environment for all students and participants. Involvement in the project, particularly for WPI students, offers practical skills and real-world experience in digital platform development, community management, and diversity advocacy. These experiences can benefit students academically and in their future careers. The project facilitates networking among students, artists, and supporters. This networking can lead to valuable connections, mentorship, and opportunities for WPI students to engage in projects and industries beyond the university.

Female students, in particular, can find inspiration and empowerment in the project, breaking down gender-related barriers and encouraging them to

pursue STEM and creative careers with greater confidence. Collaborations between WPI and Rigs of Color demonstrates the potential for educational institutions to engage in socially impactful projects. This highlights the role of universities in addressing real-world challenges and fostering innovation. The project's commitment to diversity and inclusion could draw positive attention and support from the public, enhancing the reputation of WPI as an institution that actively contributes to social progress. Overall, the project contributes to creating a more inclusive, diverse, and socially aware environment within the extended WPI community. It enriches students' experiences, connect them with real-world opportunities, and inspires positive change within and beyond the university.

Would your proposal elevate WPI's impact and extend its reach beyond the
 WPI community? If so how?

Yes, Rigs of Color has the potential to elevate WPI's impact and extend its reach beyond the WPI community. First, by actively promoting diversity and inclusion within the gaming industry, the project contributes to a broader positive impact. WPI's involvement in such an initiative showcases the university's commitment to making a difference in a global industry. The project further sends a powerful message about the role of educational institutions in promoting social responsibility and inclusivity. It highlights WPI's dedication to addressing real-

world issues and advancing the values of diversity. The project's focus on diversity and inclusion could also attract significant attention from the media and the public. This, in turn, amplifies the positive influence of WPI in addressing societal challenges.

Furthermore, collaboration with Rigs of Color establishes partnerships that can have lasting impact. These partnerships may lead to continued joint initiative that have the potential to expand WPI's reach and influence. WPI's involvement in the project can inspire other educational institutions to engage in similar initiatives, promoting the values of diversity and inclusion in education and the industries students pursue. The project along fosters connections and networking opportunities among participants beyond the immediate WPI community. These connections may lead to partnerships, collaborations, and mentorship opportunities. Overall, the projected showcases WPI's commitment to advancing social impact and inclusivity not only within the university community but also on a larger scale. It has the potential to inspire, influence, and engage a broader audience, extending the university's reach and impact in addressing important societal issues.

 How is your project uniquely important to the mission of supporting girls and/or women in STEM? The Rigs of Color project is uniquely important to the mission of supporting girls and women in STEM for several reasons. While many initiatives focus on increasing the representation of women in STEM fields, Rigs of Color specifically targets the gaming and digital technology sector, a niche within STEM. By showcasing female artists and game developers, the project challenges the stereotype that STEM careers are exclusively technical, providing an important avenue for girls and women to explore their passions in a creative and innovative context. The project empowers female artists and creators to take active roles in the gaming industry, providing them with a platform to showcase their work and foster leadership. This empowerment sends a powerful message that girls and women can excel in creative and technical roles, encouraging them to pursue STEM fields with confidence.

By actively involving women in the project, it provides aspiring girls and women in STEM with visible role models and mentors. Representation matters and seeing successful women in game design and technology fields can inspire the next generation to pursue similar career paths. Female WPI students, in particular, are introduced to hands-on STEM experiences, which can be a significant factor in attracting and retaining girls and women in STEM education and careers. It creates opportunities for women to develop skills and gain

experience in technology and other creative endeavors. Furthermore, the project contributes to a broader discussion about diversity and inclusion in STEM by focusing on a specific subsection of technology and creative industries. It highlights that STEM is not limited to traditional technical roles and can encompass a wide range of creative and innovative positions. Overall, the project is uniquely important to the mission of supporting girls and women in STEM by providing a dedicated platform for female artists in the gaming industry, fostering empowerment, mentorship, and educational opportunities. It showcases the breadth of possibilities within STEM and challenges gender stereotypes, making it a pivotal initiative for gender diversity in STEM.

 How will WIN be recognized as having played a role in the success/completion of your project?

First, WIN will be prominently acknowledged in project materials, including the project website, promotional materials, and any published content related to the project. This will highlight WIN's significant role in supporting the initiative.

The project website will also feature a dedicated page acknowledging WIN's contribution, including information about the grant, its mission, and its commitment to promoting women in STEM fields and related industries. Rigs of Color may also host events, such as launch parties or milestones celebrations,

where representatives from WIN could be invited to speak and be recognized for their contribution.

Regular updates on project progress and achievements will be shared through social media and news channels, with specific mentions of WIN's support. Further, in any media communications, WIN's role as a vital partner in promoting diversity and inclusion in STEM and other creative fields will be emphasized. Regular reports and updates on the project's progress will include a dedicated section to acknowledge and recognize WIN's vital role in advancing the initiative. Rigs of Color may also produce content in collaboration with WIN, such as blog posts or articles, which can be shared on both organizations' platforms, highlighting the partnership.

WIN's name will also be included in official project documentation and reports submitted to stakeholders and grantors. Additionally, representatives of WIN will be invited to participate in project evaluation processes to assess the impact of the grant and provide valuable insights and feedback. Special events or ceremonies can also be organized to express gratitude and officially recognize WIN's support for the project. This could include awards or certificates of appreciation. All in all, these recognition methods will ensure that WIN's contribution to the Rigs of Color project is well-documented and celebrated,

highlighting their pivotal role in advancing diversity and inclusion within STEM and creative industries.

4.) IMPACT

- Who do you anticipate will directly and indirectly benefit from this project? Direct beneficiaries include female artists, artists of color, and other minority artists who will gain a platform to showcase their work and connect with a supportive community. This further reaches WPI students, since they will acquire real-world skills and experience by actively participating in the project. Indirect beneficiaries include the gaming industry by promoting diversity and inclusivity, and supporters and allies who advocate for diversity and inclusion in gaming. The project also has the potential to indirectly influence public discussions and attitudes towards diversity and inclusion in digital spaces.
 - What direct and indirect impacts do you anticipate occurring as a result of this project?

For direct impacts, the project will first allow for the empowerment of artists of color and women. It will allow for them to have a dedicated platform to showcase their work, enabling them to gain recognition, build their portfolios, and establish their presence in the gaming industry. Furthermore, WPI students involved in the project will gain valuable real-world experience in digital platform

development, community management, and collaboration with diverse stakeholders. The project will directly contribute to increased inclusivity within the gaming industry by providing artists with a supportive environment to express themselves. Artists will have opportunities to network, collaborate, and potentially partner with fellow artists, game developers, and industry professionals. The Rigs of Color community will experience increased engagement and interaction, fostering a more vibrant and supportive environment for artists of color.

Indirectly, as minority artists gain recognition and influence, the gaming industry may see an increase in diverse and inclusive gaming content, reflecting a broader range of experiences and perspectives. The project can spark broader discussions about diversity and inclusion within the gaming industry, leading to greater awareness and advocacy for these issues. The championing diversity and inclusion, the project can indirectly influence industry practices, encouraging game developers and companies to consider diversity in their hiring, game development, and marketing. The project's emphasis on community building and collaboration could set a positive example for other digital communities, inspiring similar initiatives in different domains. The project's collaboration with WPI students demonstrates the potential for educational institutions to engage in

socially impactful projects, potentially inspiring similar collaborations at other universities. Increased representation of female artists and artists of color and discussions on diversity in the gaming industry may affect media coverage and public perception, potentially driving positive changes in both. The combination of these direct and indirect impacts illustrates the project's potential to transform the gaming industry, empower underrepresented artists, and contribute to a more inclusive and diverse digital space.

 How many people do you expect will be directly and indirectly impacted by this project? How will you measure the direct and indirect impacts of your project?

The project is expected to have both direct and indirect impacts on various individuals and communities within and beyond the gaming industry. The impact will be measured through several key metrics and assessments:

Direct Impacts:

 Artists of Color: The primary beneficiaries are the artists of color within the gaming industry. Rigs of Color anticipates direct impact on several hundred artists who will be able to showcase their work, receive support, and connect with a broader community.

- WPI Students: The project directly engages WPI students, providing them
 with real-world experience and technical skills in developing and managing
 a digital platform. This number would depend on the number of students
 involved.
- Rigs of Color Community: The existing Rigs of Color community, which
 includes members, supporters, and volunteers, will experience a direct
 impact through increased engagement and participation in the project.

Indirect Impact:

- **Gaming Industry:** The project indirectly impacts the gaming industry by promoting diversity and inclusion. This can have a far-reaching impact on game development, representation, and overall industry culture.
- Allies and Supporters: Individuals who support diversity and inclusion in the gaming industry, even if they are no female artists or artists of color, will indirectly benefit from a more inclusive community and an enriched gaming experience.
- Broader Community: The project has the potential to influence discussions and attitudes about diversity and inclusion in digital spaces, indirectly impacting a broader community.

Measuring Direct and Indirect Impacts:

- **User Analytics:** Track the number of artists showcasing their work on the platform, the frequency of their engagement, and the diversity of content.
- **Community Engagement:** Monitor the level of community engagement, the growth of the community, and interactions between artists and supporters.
- Students Assessments: Evaluate the students' learning experiences, skills
 acquired, and their assessment of the impact of their involvement in the
 project.
- Surveys and Feedback: Collect feedback from artists, supporters, and community members to assess their experiences and any changes in attitudes or perceptions.
- Impact on the Gaming Industry: Monitor developments in the gaming industry, such as increased representation of artists of color, more inclusive game content, and any industry-wide discussions on diversity and inclusion.
- Media and Public Perception: Monitor media coverage and public discussions related to diversity and inclusion in gaming to gauge the project's indirect impact.

The combination of these quantitative and qualitative metrics will provide a comprehensive picture of the project's direct and indirect impacts, helping in the

assessment of its effectiveness and influence in promoting diversity and inclusion in the gaming industry.

6. References

- Adams-Bass, V., Bentley-Edwards, K., & Stevenson, H. (2014). That's Not Me I See on TV ...:

 African American Youth Interpret Images of Black Females. *Women, Gender, and*Families of Color, 2(1), 79-100. https://doi.org/10.5406/womgenfamcol.2.1.0079
- Behm-Morawitz, E., Hoffswell, J., & Chen, S.-W. (2016). The virtual threat effect: A test of competing explanations for the effects of racial stereotyping in video games on players' cognitions. Cyberpsychology, Behavior, and Social Networking, *19*(5), 308–313. https://doi.org/10.1089/cyber.2015.0461
- Biefeld, S., Stone, E., & Brown, C. (2021). Sexy, Thin, and White: The Intersection of Sexualization,
 Body Type, and Race on Stereotypes about Women. *Sex Roles 85*, 287-300.
 https://doi.org/10.1007/s11199-020-01221-2
- Breuer, J., Kowert, R., Festl, R., & Quandt, T. (2018). Sexist Games = Sexist Gamers? A Longitudinal Study on the Relationship Between Video Game Use and Sexist Attitudes. *Cyber psychology, Behavior, and Social Networking, 18*(4),197–202. https://doi.org/10.1089/cyber.2014.0492
- Burgess, M.C.R., Stermer, S.P., & Burgess, S.R. (2007). Sex, Lies, and Video Games: The Portrayal of Male and Female Characters on Video Game Covers. *Sex Roles, 57*(5), 419-433. https://doi.org/10.1007/s11199-007-9250-0
- Deskins, T. (2013). Stereotypes in Video Games and How They Perpetuate Prejudice. *McNair Scholars Research Journal*, *6*(5), 19-36.
- Dill, K.E., & Thill, K.P. (2007). Video Games Characters and the Socialization of Gender Roles: Young People's Perceptions Mirror Sexist Media Depictions. *Sex Roles*, *57*(11-12), 851-864.
- Ferguson, C.J., Donnellan, M.B. Are Associations Between "Sexist" Video Games and Decreased Empathy Toward Women Robust? A Reanalysis of Gabbiadini et al. 2016. *Journal of Youth and Adolescence*, 46, 2446–2459 (2017). https://doi.org/10.1007/s10964-017-0700-x

- Hackett, R., Ronaldson, A., Bhui, K., Steptoe, A., Jackson, S. (2020). Racial discrimination and health: a prospective study of ethnic minorities in the United Kingdom. *BMC Public Health*, *20*(1652), 1-13. https://doi.org/10.1186/s12889-020-09792-1
- Korver-Glenn, E. (2018). Compounding Inequalities: How Racial Stereotypes and Discrimination

 Accumulate across the Stages of Housing Exchange. *American Sociological Review, 83*(4),
 627-657. https://doi.org/10.1177/0003122418781774
- Lin, B. (2023). *Diversity in gaming: An analysis of video game characters*. DiamondLobby. https://diamondlobby.com/geeky-stuff/diversity-in-gaming/
- Stoet, G., & Geary, D. C. (2018). The Gender-Equality Paradox in Science, Technology,

 Engineering, and Mathematics Education. Psychological Science, 29(4), 581–593.

 https://doi.org/10.1177/0956797617741719
- Tukachinsky, R., Mastro, D., & Yarchi, M. (2017). The Effect of Prime Time Television

 Ethnic/Racial Stereotypes on Latino and Black Americans: A Longitudinal National Level

 Study. Journal of Broadcasting & Electronic Media, 61(3), 538-556.

 https://doi.org/10.1080/08838151.2017.1344669
- Williams, D., Martins, N., Consalvo, M., & Ivory, J. D. (2009). The virtual census: representations of gender, race and age in video games. *New Media & Society*, *11*(5), 815–834. https://doi.org/10.1177/1461444809105354
- Willis, S. (2023). Gaming, gender and how diversity is growing in the industry. dBs Institute. https://insider.dbsinstitute.ac.uk/gaming-gender-and-how-diversity-is-growing-in-the-industry
 - 7. Appendices

Appendix A: Sponsor Interview Questions

Jayden:

1. What is the main mission/goal of Rigs of Color?

- -The mission of Rigs of Color is to train young artists on the fundamentals of animation in relation to character rig design. Furthermore, Rigs of Color aims to educate young artists about the lack of diversity (ie. Racism/gender stereotypes, etc.) to give them the tools to effectively dismantle stereotypes through the creation of diverse character rigs.
 - 2. What is the process for becoming a member or contributor of Rigs of Color?
- -There is no defined process. Anyone can become a contributor.
 - 3. How many characters do you currently have? I saw that you have surpassed your goal of 12 characters and are working towards a goal of 1,000 characters.
- -There are currently about 50 characters, but only about 2/3 can be used. The other 1/3 needs to be redesigned.
 - 4. Out of the characters you currently have, do you feel that all ethnic backgrounds/genders are represented equally? If not, does a certain gender or ethnic identity currently dominate?
- -No, there is not currently an equal representation. Most characters are black, some are Asian, and some are Hispanic. Not much trans/LGBTQ representation within the current characters and there has been some trouble finding the proper labels for these characters. There are also no Filipino characters, and as such, there are plans to expand the amount of characters.
 - 5. How does Rigs of Color plan to expand its impact and reach in the future?
- -Looking to apply for internal WPI grants, currently the WIN grant, and use that funding to expand the outreach of Rigs of Color and recruit more contributors. Hoping to get contributors to submit their own models and partner with other schools to reach the goal of 1,000 characters. Also considering selling training videos to support growing tool development with anti-racism/AI tools for character rigs.
 - 6. Are there any particular issues that you believe need to be addressed in order to allow for Rigs of Color to expand?
- -There is difficulty explaining what a character rig is and defining the problem/demonstrating the need to those who do not understand.
 - 7. Are there any particular events or artist workshops hosted by Rigs of Color?
- -No, not currently.

- 8. Does Rigs of Color currently collaborate with any other organisations or small businesses? If yes, are you able to list a few?
- -No, Rigs of Color works on its own. Works with help from members of the WPI community.
 - 9. Are those who contribute to Rigs of Color with their artwork mainly WPI students or is there another group of people that works more closely with Rigs of Color?
- -Those who contribute to Rigs of Color are mainly WPI students. There was at one point a contributor who worked outside of WPI and did not get into the school.
 - 10. If Rigs of Color was to receive the Women's Impact Network Grant, how would that money be used to help further your mission?
- -The funding would be used to develop more tools to train young artists in the field and would also be used to pay contributors for their work.

Jared:

- 1. How do we mix your two goals? (Creating diversity, training young artists).
- -The goal is diversity, We accomplish this goal by training young artists.
 - 2. Who is your target audience?
- -Users and donors.
 - 3. What is their expected background in your field?
- -Users know what the project is. Donors do not.
 - 4. What percentage of your target audience knows what a Rig is, or can define it?
- -100% of donors do not know, 100% of users know.
 - 5. What areas do you think that you need to work on?
- -Defining what a rig is and coming up with a problem statement that effectively demonstrates the need.
 - 6. What are the long- and short-term goals for your project? In the time span of 6 months, one year, and five years?

- -1000 characters (Currently at 50), and can have people create their own characters, maybe partner with other schools.
 - 7. How accurate do you think the information on the website is? When was the last time you updated it?
- -Planned launch: Summer 2024. Mostly accurate. Website was frozen due to applying for a grant. Has not been updated since it was created which was about a year ago.
 - 8. How often do the people that are working on the project change? Do you think that this is a selling point for the project?
- -Changes as often as people graduate. 12-15 people in total. 6-7 Right now, (Most are in training). 50 people have been training, 15-20 have completed the training. Maybe 5 have contributed.
 - 9. Are there any other projects that you know of that are similar to Rigs of Color?
- Similar project is OpenHair, done by a USC Professor, where hair is created for characters. Also, Pixar is working on paid character rigs. It took them 5 years to develop.

Appendix B: WIN Grant Questions for Interviews with Previous Grant Recipients

Research Question:

Why has Farley not been able to receive grants? What can be done to strengthen his grant application to help him win this grant and other future grants that he might consider applying for?

Consent Statement:

Thank you for your willingness to participate in this interview conducted for our IQP research. The research has the objective of developing an efficient communication strategy for Rigs of Color, founded by Farley Chery, and will be published by Worcester Polytechnic Institute. Your participation in this interview is voluntary, and you may choose not to participate, stop participating at any time, or skip any questions you would like. Direct quotes may be used. With this in mind, do you consent to being interviewed today?

About Rigs of Color:

I will begin by explaining what rigs of color is. Rigs of Color, founded by Farley Chery, aims to dismantle stereotypes to allow for the accurate portrayal of characters in video games. In order to do this, Farley and his team of young animators (mainly WPI students) have created a series of diverse character rigs (characters that show fat/muscle movement) for animators to use. Some rigsare free and some are premium, meaning that they can be paid for. However, the purpose is mainly for non-commercial use. Through Rigs of Color, Farley hopes to train young artists in the field, as people of color are not being accurately represented in the media (and as video game characters), causing for there to be a lack of diversity. Most people working as contributors are female and others from diverse backgrounds (ie. BIPOC). In conducting interviews with people who have successfully applied in received grant funding, we are hoping to see where Rigs of Color might fit within the mission of Women's Impact Network Grant. Furthermore, we are looking to identify the best approaches to communicate the value that Rigs of Color brings to the community and in submitting grant proposals, specifically for WIN.

Questions:

- 1.) Do you feel that there are particular types of projects that the WIN organization might be more likely to fund? If so, what types of projects?
- 2.) Could you share some tips on how to identify a compelling project or initiative that aligns with the objectives of this grant?
- 3.) What types of impact do you believe are most important to WIN? Impacts to students, faculty, staff, etc.? Is one stakeholder more important than the other in the eyes of WIN?
- 4.) How do you think Rigs of Color would fit into the mission of the WIN grant?
- 5.) How did you determine the plan/strategy for the project, including outlining the objectives and determining the target audience?
- 6.) How important is scalability and sustainability, and having a plan in place to ensure both?
- 7.) How did you demonstrate the potential impact and scalability of your project in the application?
- 8.) How did you define your problem statement in your application and make it evident that the issue to be addressed was important?
- 9.) What do you believe were the key components or elements of your application that made it a success?
- 10.) Were metrics and/or statistics important to include in your application?
- 11.) Was storytelling an important aspect of your application?

- 12.) How did you approach the budgeting and financial aspects of the grant application, such as the allocation of funds and how they would be used?
- 13.) Were there any challenges you encountered during the application process, and how did you overcome them?
- 14.) What kinds of supporting materials or documentation, if any, did you include with your application, and how do you think those helped to enhance your proposal?
- 15.) Since WIN gives out a limited amount of funds for projects, how did you ensure that your proposal was innovative and unique compared to other applicants?
- 16.) Do you feel that cross-disciplinary collaboration with people from different disciplines is important to WIN?
- 17.) Did you receive any feedback or guidance from the grant reviewers during the application process? If so, how was it addressed?
- 18.) Are there any specific resources that you found helpful during the application process that might be helpful for Rigs of Color to consult?
- 19.) What advice do you have for someone who is applying for the grant for the first time?

Appendix C: WIN Grant Questions for People on the Committee

- 1.) Could you provide an overview of the Women's Impact Network Grant's goals and objectives?
- 2.) Do you have any tips for identifying a compelling project or initiative that aligns with the objectives of WIN?
- 3.) What are the key criteria that the committee considers when evaluating grant applications?
- 4.) How do you prioritize different types of projects and initiatives?
- 5.) What impact or outcomes are you looking for in the projects you choose to fund?
- 6.) Can you provide examples of past projects that have been funded by the Women's Impact Network Grant?
- 7.) Are there any specific themes or areas of focus that the committee is particularly interested in for this upcoming grant cycle?
- 8.) How do you assess the potential long-term sustainability of a project after the grant period ends?

- 9.) What role does diversity and inclusion play in the committee's decision-making process?
- 10.) What is the typical evaluation process for reviewing and selecting grant applications?
- 11.) What advice would you give to someone who is applying for the Women's Impact Network Grant?
- 12.) How does the committee support grantees throughout the project lifecycle?
- 13.) Is there anything specific you would like applicants to know about the Women's Impact Network Grant and the selection process?