

Pursuing Film Studies and Production at WPI

Submitted to:

Project Advisor: Joshua Rosenstock, WPI Professor

Submitted by:

Skyler Preston Alsever
Joseph Kaiser

1.0 Introduction	4
1.1 Abstract	4
1.2 Executive Summary	4
2.0 Background	6
2.1.1 Film Theory	8
2.1.2 Film Criticism	9
2.1.3 Film History	10
2.2 Film Production	12
2.2.1 Cinematography	13
2.2.2 Video Editing	13
2.2.3 Directing, Producing, and Advanced Film Production Topics	13
2.3 Theory vs. Practice: an Interrelational Outlook	14
2.4.1 The Early History of Film (1890's-1960's)	16
3.0 Methodology	20
3.1 Primary Goals	20
3.1.1 Assess Potential for Film Education at WPI	20
3.1.2 Propose Viable Structures for a Curriculum in Film	20
3.1.3 Present Proposals to Academic Administration for Review	21
3.2 Determining Requirements	21
3.2.1 Investigation of External Academic Institutions	21
3.2.2 Investigation of Non-Academic Educators and Professionals	21
3.2.3 Further Literary Review	21
3.3 Determining Available Resources at WPI	21
3.3.1 Current and Past Courses Pertaining to Film	22
3.3.2 Academic Technology Center	22
3.3.3 The Gordon Library Film Catalog	22
3.3.4 Faculty Experience and Fields of Study	22
3.3.5 Additional Equipment and Study Spaces	23
3.4 Gauging Interest in Film Education	23
3.4.1 The WPI Student Body	23
3.4.2 WPI Faculty and Staff	23
3.4.3 Within the Worcester Consortium	23
3.5 Course and Curriculum Structure	24
3.5.1 Within the Humanities and Arts Department	24
3.5.2 Within the University: The WPI Plan	24
3.5.3 Formats for Minors	24

3.5.4	Formats for Majors	25
3.6	Formatting the Curriculum in Film Education	25
3.6.1	Determining Extent: Major/Minor Feasibility	25
3.6.2	Reasonable Cost and Expense Analysis	25
3.6.3	Determining Overlap in Fields of Study	25
3.6.4	Training, Experience, and Adjunct Professorships	25
3.6.5	Interpreting Interest	26
3.7	Proposal Process	26
3.7.1	Within the Humanities and Arts Department	26
3.7.2	Within the University: Office of the Registrar	26
3.7.3	Approving a Minor	27
3.7.4	Approving a Major	27
3.7.5	Proposal Meeting and Presentation	27
3.7.6	Additional Goal: Demonstration of Current Film Resources	27
4.0	Findings and Analysis	29
4.1	Student Interest and Experience	29
4.2	Faculty Interest and Experience	30
4.3	Subject Overlap	31
4.4	Practicality	33
4.4.1	Film at Other Engineering Universities	33
4.4.2	The Higher Education Consortium of Central Massachusetts (HECCMA)	34
4.4.3	Current and Past Courses at WPI	36
4.4.4	Spacial and Equipment Requirements	37
4.4.5	Spacial and Equipment Resources at WPI	38
4.5	Faculty Interest and Experience: Analysis	40
4.6	Subject Overlap: Analysis	41
4.7	Practicality: Analysis	42
4.7.1	Film at Other Engineering Schools	43
4.7.2	The Higher Education Consortium of Central Massachusetts (HECCMA)	43
4.7.3	Spacial and Equipment Requirements: Analysis	45
5.0	Conclusion and Recommendations	46
5.1	Future Research	46
5.2	Recent Developments	47
5.3	Recommendations and Changes	47
5.3.1	Retention of Foundational Courses	47
5.3.2	Expansion of Catalog	48

5.3.3 Accreditation and Departmentalization	48
6.0 Bibliography	50

1.0 Introduction

1.1 Abstract

The goal of this project is to evaluate the current extent of film education offered at WPI, determine whether or not there is potential for expanding upon those offerings, and make recommendations on how to do so based on pedagogical standards of film education within the greater Massachusetts area and the nation at large. Primarily research driven, this project investigates other universities, various leading sources in film education, and the WPI student and faculty base to justify the expansion of film at WPI and create a plan for doing so which takes into consideration the needs, wants, and desires of the WPI community.

1.2 Executive Summary

Relatively speaking, the medium of film has only existed for a short period of time in comparison to written language or visual arts. However, in that time period it has managed to permeate through and utterly reshape the cultural environment of the world around it. Film and video media is everywhere: our homes, our workplaces, our cultural centers, our buildings of governance and for some it's even in our places of worship. The average American citizen consumes roughly 2.82 hours of television alone per day (Bureau of Labor Statistics, American Time Use Survey - 2014 Results). Combine that with time spent viewing videos online, in theaters or through other pre-recorded means, estimated to be around .8 hours for the bulk of the populace (those under 45), and that number increases to a whopping 3.62, almost $\frac{1}{4}$ of the total average time spent awake.

With its presence so heavily weighing upon our cultural identity, one could assume that many places of higher education would seek to study and embrace this new medium, both as a potential lure for new students and to offer deeper insight and understanding of what many would continue to simply consume. While a large number of universities across the United States have indeed done so- and quite successfully as a matter of fact- it is surprising to find that Worcester Polytechnic Institute (WPI), a place that is often friendly to non-traditional types of artistic and social expression and which so openly embraces innovation and creative thought, has failed to join in on this endeavor.

Though it was established as an institute of higher education well before the advent of film technology, WPI has since been recorded as having offered only two stand-alone courses dedicated to the study of film and video media, both of which having just been fully instituted as annually recurring classes within the past two years. While other courses and opportunities of instruction do exist within the university, these are generally isolated to classes that use film as either a tool of learning (such as the language arts courses offered on both German and Spanish film) rather than the subject, or as a limited or experimental experience in learning (such as the Inquiry Seminars and Practicums offered each year involving film and film history). When compared to the numerous Literature, Music, General Art, and even Drama and Theater studies offered at the university, the disparity is greatly evident. Being one of the most technologically demanding forms of artistic media, it would be assumed to find a welcome home here at WPI, a university which revolves around the creative development and implementation of technology itself. Despite this, film continues to lack any substantial presence here, and is one of the least supported programs on campus.

The general goal of this IQP is to analyze and identify key rationales as to why WPI should consider expanding its current film and video media offerings, as well as how to surmount any obstacles that may have prevented this from happening already. We will determine the necessary components needed to implement and maintain these offerings, and eventually propose the general shape and structure that these offerings should take, identifying what the state of film education at WPI could and perhaps should look like going forward.

2.0 Background

The goal of this project is to expand upon the existing curricula in film education currently offered here at WPI. Doing so requires a detailed understanding of not only the potential subject areas that encompass film education but also their uses, merits, requirements and relevant histories.

Within this Background section you will be presented with organized arguments and information pertaining to the study of film at the Undergraduate Level and gathered through the in depth analysis of various written source materials. To allow for easier understanding of these subjects, the arguments and ideas within this background section are intrinsically grouped into 3 categories of thought:

1. **The definitions and descriptions associated with Film Education and its two core disciplines of Film Studies and Film Production.** Understanding what these disciplines are, where they overlap, and how they have developed into their current roles in both the undergraduate curriculum and in society itself are crucial to understanding why they would be desired subjects to teach here at WPI. [What]
2. **The requirements and expectations associated with the teaching of Film Education and its two core disciplines.** Identifying how film has come to be taught at other universities and institutions helps identify what structures a film curriculum at WPI could come to adopt as well as what basic materials and resources would be needed, at the minimum, to adopt these structures. [How]
3. **The justifications and rationales behind teaching and pursuing film education at the undergraduate level.** There is no point in pursuing something without proper justification, especially something as demanding as the establishment of a new course curriculum. As such, it is necessary to identify the driving motives and immediate benefits behind such pursuits as it provides both legitimacy in our endeavors as well as crucial evidence as to why such endeavors should be pursued at WPI specifically. [Why]

This information we hope to use as the starting point for the rest of our research project, allowing us thereafter to focus on the specifics and feasibility of a film education curriculum as it pertains to WPI exclusively. [Where]

2.1 Film Study

The discipline that is Film Studies (Also known as Cinema Studies, Cinema and Media Studies, Screen Studies and occasionally visual culture), is primarily concerned with the multi-faceted analysis of the visual medium of expression known as “film”. Film studies, like the studies of other major mediums of expression such as literature and illustration, is actually a rather wide variety of subjects, studies and philosophies bound together not by a common theme or topic, but by the subject matter that is being studied. As the Society for Cinema and Media Studies more aptly puts it:

“Cinema and Media Studies emphasize the cultural and historical importance of media and focus on the production, circulation, and reception of texts and representations, which are analyzed in terms of aesthetics, meanings, and uses. Cinema and Media Studies is an inherently interdisciplinary field, and faculty are housed in a number of different departmental configurations, including Radio-TV-Film, Communications, English, History, Theater, Comparative Literature, Visual Arts, Music, American Studies, Journalism, area studies, and more.” (Society for Cinema and Media Studies, [2016](#))

Due to this multifaceted nature and the many topics of study one can focus on using films as a lens, it is hard to identify what film studies intrinsically means and how it should ideally be taught in a classroom environment. “Writing about ‘Film Studies as if it were a singular object requires a level of invention at the best of times; the disciplinary transnationalism it implies bears very little inspection before it falls apart.” (Donald and Renov, 2008). To this end, attempting to explain all film studies has to offer whilst also treating it as a single object of study is a difficult if not impossible task and there may be areas of film study not covering within the scope of this report. Film studies is what it says it is, the scholarly study of film, and the topics which are focused upon or the methodologies which learned from said study is ultimately decided by the

scholar, though schools of thought and methodologies have emerged over time and form key factions and tenets in the overall environment of cinema scholasticism.

There are, however, a set of 3 “core” conceptual sub-disciplines within film studies which help shape and identify that which is most readily focused on: Film Theory, Film History and Film Criticism. References to these three subjects appear far more prevalently in film study academia than any other subject: Fischer and Petro’s “Teaching Film” lists these three as the primary subjects covered by the Modern Language Association's executive committee on film and bases its first chapter on explaining how these subjects have been taught over time; Excerpts from course descriptions within Barry Keith Grant's “Film Study in the Undergraduate Curriculum” commonly identify film study courses as “Examining the History, Theory and/or Criticism of film (or some combination thereof)”; even Wikipedia defines Film Studies as “an academic discipline that deals with various [theoretical](#), [historical](#), and [critical](#) approaches to [films](#)” with links then given to each of the 3 sub-disciplines in turn. Most other subjects and courses that can ostensibly fall within the range of Film Studies consist of one or more of these subjects mixed with teachings from other disciplines such as psychology or cultural studies. Studies of a particular film genre for instance tend to focus mostly on the Film Theory side, identifying key aesthetic strategies used across films of the same genre, but may also include mentions of historical context of the genre both within the film world and within the society the genre flourished in, and may occasionally diverge into a cultural commentary on what that genre reveals about society at large.

2.1.1 Film Theory

Film Theory makes up the bulk of what one would commonly describe as Film Studies, and is the aesthetic, artistic and interpretive heart of discipline. “Film Theory refers to any generalized reflection on the patterns and regularities to be found in relation to film as a medium, to film language, to the cinematic apparatus or to the nature of the cinematic text and its reception”(Stam, 2000). To this end, film theorists document, teach, and analyze the common techniques and practices implemented across various films, marking trends in the compositions of colors, characters, lighting, sound, story, etcetera. These trends are then used to explain how

emotions and messages are conveyed by a film to its audience, why certain films are more successful than others, what defines a genre or directorial style, and how film as an art form has grown and developed over time. Film theory is the closest discipline within film studies to film production and for good reason, considering theorists devote their lives and livelihoods to the study of what make films as a whole evocative and impactful. Film theory often goes hand in hand with other disciplines within the humanities and arts spectrum such as aesthetics, image composition, psychology, communication and writing as these are all used to evaluate the strategies and techniques moviemakers use and why these techniques are effective. Film Theory overall is best described as an “evolving body of concepts designed to account for the cinema in all its dimensions (aesthetic, social, psychological) for an interpretive community of scholars, critics and spectators” (Stam, 2000).

2.1.2 Film Criticism

“I have had a parallel professional life in teaching and writing film criticism and film history. For me, these two activities have the same functions: To Communicate.”

- Michel Ciment, Positif Magazine

Slightly outside of Film theory lies the more marginalized category of Film Criticism. In its broadest definition, film criticism is simply the study of how to write about and evaluate films, for better or for worse. As the University of Vermont Library’s “Film and Television Study Guide” explains:

“Film Criticism is the study, interpretation, and evaluation of a film and its place in cinema history. Film criticism usually offers interpretation of its meaning, analysis of its structure and style, judgement of its worth by comparison with other films, and an estimation of its likely effect on viewers. Film theory (e.g. feminist, postmodernist, etc.) often informs the critical analysis of a film. Criticism may examine a particular film, or may look at a group of films in the same genre, or a director's or actor's body of work.”
(University of Vermont Library, [2016](#))

Film criticism, as an innately analytic and journalistic study, is a primarily written practice focusing not only on how to analyze and evaluate the merits of a film but also how to convey and explain those merits to an audience of both informed peers and uninformed moviegoers. As

Adrian Martin, critic for Australian “The Age” news writes, “The Idealistic part of me believes that writing film criticism is all about a. Encouraging people to see (or seek out) films that they might not normally see and b. Encouraging people to think a little differently about what they see. Film Criticism is all about finding an angle, suggesting a context, and illuminating a film in a way that is not the most immediately apparent” (Martin, [2005](#)). To achieve this effect, professional level criticism combines the teachings of Film Theory with elements of creative and persuasive writing, allowing for clear, cohesive and convincing portrayals of a film (or films) and the summation of its values and merits. Many universities offer the teaching of film criticism as a part of their film studies and/or journalism curriculum, both studying the impact and styles of popular and influential critics as well as the practice of critiquing a film, usually through devoted courses such as “Writing About Film” (As Offered at University of North Carolina Wilmington) or simply “Film Criticism” (As Offered at Kent University).

2.1.3 Film History

Lastly is Film History, which as the name suggests is the study of the history of film. Film history, despite the relative youth of the medium itself, is a very diverse and expansive study due in part to the massive amount of cross-cultural popularity that film and video media has accrued. David Bordwell, Film Professor at the University of Wisconsin-Madison identifies the 3 key questions the study of film history seeks to answer in his essay “Doing Film History”:

1. How have uses of the film medium changed or become normalized over time?
2. How have the conditions of the film industry—production, distribution, and exhibition—affected the uses of the medium?
3. How have international trends emerged in the uses of the film medium and in the film market?

(Bordwell, [2008](#))

To answer these questions, film historians are expected to know and understand not only details surrounding the production and release of a film, but also the technological and social breakthroughs and advents of the time as well. Like most other historical studies, film history tends to group subjects of similar styles and aesthetics by their times of release to identify what “Movements” (Auteur, New Wave, Third Cinema, etc) and “Periods” (Silent, Classical, Postwar,

etc) in the overall world of film have occurred and how those developments correspond to the mentality of the history and culture that, at the time, surrounded them. Film history also enjoys identifying the key figures in the development of film and film study including famous directors, producers, corporations, screenplay writers, critics and even theorists. The historical study of film ultimately hopes to chronicle how past great works and industry professionals have decided how film as a whole has evolved and grown into the form of art and entertainment that it is today.

2.2 Film Production

Film Production (Also known as Filmmaking and Cinema/Video Media Production) is the study of how films are produced, created, and eventually released and marketed to the general public. Film, as a multifaceted medium, requires a lot of different individuals with vastly different skillsets all coming together in order to produce a polished, quality product. Many of these skillsets share heavy instructional overlaps with various other artistic and technical practices such as film scoring (overlaps with music composition and design), costume design (clothing design and manufacturing), set design (architecture and construction), screenplay writing (storytelling and scriptwriting), and film acting (stage and theater acting).

Unique to film production however are the studies of Cinematography and Video Editing, the processes and techniques used to acquire and then manipulate video recordings respectively. These 2 studies form the backbone of film production education and can be taught as either separate individualized subjects (Such as the Editing and Cinematography Courses or as a series of hybrid courses generally listed as either “Filmmaking” or “Video Production” at beginner and intermediate levels.

Another important aspect of film production education is an understanding of the process by which films are designed, managed and orchestrated. In the professional setting, these tasks usually are split between producers, who handle the technical aspects and requirements of a film as well as decide it’s funding, and directors, who handle all of the creative and artistic decisions such as scene and shot orchestration as well as editing direction. These roles don’t see much individual focus at the academic level though, with all of their tasks and responsibilities along with the strategies to handle them being mixed together with the core film production classes instead. On the rare occasions in which they do receive a class or two, the class is usually either a capstone class tasking students to make a decent quality film from start to finish (Such as the University of Hartford’s “Producing and Directing” course) , or an independent course practicum which does the same.

2.2.1 Cinematography

Core subjects outlined within this review are also the most essential: Basic cinematography courses or lectures tend to focus on proper operation of the camera and sound equipment first before then diverging into the finer aspects of scene, framing, lighting balance, and spatial orientation of a given shot. It's also important to note that most film courses that teach cinematography start by teaching the established norms of the subject that are known to yield aesthetically pleasing results before than encouraging students to further branch out and very up their own filming style in courses often labeled as "Experimental" or "Creative" Cinematography.

2.2.2 Video Editing

From Cinematography then comes the subjects of editing and other post-production tasks, which in recent times have changed remarkably in their techniques and approaches. Cinematic editing is essentially the restructuring of the various captured film and/or video sequences that cinematographers have produced into the coherent and visually engaging end product that is a film. Editors decide how to best emphasize and polish the recorded videos they receive, adding various effects, balancing colors, adjusting transitions and scene lengths and even balancing and adjusting the audio tracks that accompany the video recordings. Courses in editing often mirror the teaching style of courses in cinematography, with the first part of instruction emphasizing familiarity with the equipment, in this case mostly editing software and control interfaces, followed by the implementation of basic editing techniques and strategies before finally dipping into the more creative and experimental sides of video editing.

2.2.3 Directing, Producing, and Advanced Film Production Topics

While Editing and Cinematography covers all of the content that goes into the design of a film, the processes and procedures that go into the planning organization of film and the agents within require their own study altogether. This is the Management aspect of Film Production, and is generally where producers, directors and other consultants are trained and developed. Film Production management is by no means isolated from editing and cinematography. Without

producers to source and manage equipment and funding, and to arrange filming times and locations, the cinematographers would have nothing to work with. Without a proper director to steer the creative teams on the editing and filming side, the film would lack any unifying creative vision and it's perceived quality would suffer. Through the process of learning cinematography and editing, one has therefore developed some idea of how the basic management of film is carried out and what structures and resources are ultimately needed. Therefore a proper course on the management of film generally expands upon these necessities as well as introducing students to the ideal methods, divisions of labor, production positions, and organizational structures one can use to address these problems and ensure that the film comes together from script, to shoot to the screen. It generally covers topics such as interpreting your script, storyboarding, casting, budget planning, directing and managing your film and editing crew, and can potentially even cover the marketing of a film and how movies are distributed and advertised.

2.2.4 Interdisciplinary Topics

Film Studies generally provides support to other disciplines by providing a source, while Film Production must adapt other disciplines to fit its specific needs.

While these three subjects, Cinematography, Editing and Management form the core of what is studied for Film Production, there is also a plethora of supplemental subjects that can be used to enhance the overall quality of instruction and are often talked about in tandem with these core tenets. Topics such as screenplay writing for films, acting for films, sound design, animation and cgi, and even copyright law can also fall under the wide umbrella of film production.

2.3 Theory vs. Practice: an Interrelational Outlook

There has, on occasion, been a slight bit of tension in the academic community regarding the teaching of both film study as well and film production. For many universities and academic communities, you will generally be asked to choose between one or the other, as though attempting to study both is either sacrilege or simply a waste of time and resources. And to it's credit, there is actually some factual validity to this argument, at least on the side of necessity.

After all, literary critics and analysts don't necessarily need to be fluent writers of the subject in which review (and very few actually are) nor do professional writers need to actively review every intricate theme, technique and aspect of characterization present in the works of their peers and rivals. Each party in this example can very readily get by without the other's skill sets and this relationship is no different for filmmakers and film critiques.

In contrast however, an equally valid argument can also be made that the two core ideas, that of theoretical review and that of practical application, may actually very readily compliment each other. If those critics from before had actually had professional experience writing, they would likely be able to relate to the author of the piece more closely and find themselves able to identify key thought processes and messages that they could not otherwise. If those writers do choose to read and study the works of their peers as well as of the theory of writing in general, they may realize methods of writing and characterization choices that they may not have been previously aware of, potentially improving upon the quality and creativity present in their future works. Such an outlook is the view that our IQP group has chosen to take for our project and we are far from alone in this endeavor.

Legendary russian filmmaker and film theorist Lev Kuleshov was once quoted as decreeing that "Teaching filmmaking without being cognizant of the fundamental cinematic theories demeans film craft to the mere level of an amateur workshop. And the opposite: studying film history and theory without a corresponding experience in the elemental aspects of filmmaking leaves theoretical research without a solid basis, forcing students to plunge into abstraction"(Quoted in Vlada Petric, 1974). His words ring uncomfortably true even now, many centuries later. In fact, it may even be this phenomena that has lead to the current academic distaste for combining the two areas of study. As filmmakers and film theorists grew more distant, their respective areas of study did so as well, with the produced films of the modern age growing less and less personally reflective and meta-conscious while the theory that was meant to describe and intermingle with the practice grew more and more abstracted and perhaps overly analytic, unweighted as it was by the actual practice of how films are made and what the producers/directors mindsets actually were.

Here at WPI, where both theory and practice are given equal weight and their interrelationship is emphasised so heavily, it would seem almost counter-productive to then perpetuate this dangerous mindset of selectivity. As such we have chosen instead, in the spirit of the Institute's proudly touted motto "Lehr und Kunst", to emphasize making these studies work in tandem to produce much more well-rounded film enthusiasts and producers. This outlook will stay with us into the formatting of our potential curricula and ensure we keep the courses balanced.

2.4 History of Film and Film Education

2.4.1 The Early History of Film (1890's-1960's)

The advent of film began in the early 1890's with the invention of the motion picture camera. It would not take extraordinarily long for people to embrace the new form of media, and by the end of the 1890's, circa 1897, film studios such as that of Georges Méliès had already begun to spring into existence. Theaters too began to appear, such as The Nickelodeon, opened in Pittsburgh in 1905 and which would show roughly hour long collections of short clips and movies. America wasn't the only place to embrace film so readily. France especially was one of the first non-american countries to also begin to pursue the fledgling field of film, and they did so rather seriously. In 1908 France saw the advent of the company known as Film d'Art, a company who specialized in making films specifically for their seriousness and artistic merit. Seeing the success of Film d'Art, other french studios quickly began to follow their example and soon the "Art Film" was born.

As World War I suddenly broke out, the atmosphere of film quickly began to change. European film such as those of France, Germany and England had to be put on hold while the American film climate was still free to flourish. Before this time period, most film production companies were centered in either New York and Florida. Due to several factors, the cultural center of film in America had entirely relocated itself to Los Angeles California by the time the war was deeply underway, and thus Hollywood cemented itself as the fixture it would serve to be. During this time, American Cinema became the world's face of film, producing an average of 800 feature length films annually.

It was at this point, that education in film actually began to be provided in earnest. Many universities in the United States, from the 1920's to the early 1950's would now start to offer the occasional course or lecture series in film, generally on the topics of film theory and history. The first film school, the Moscow School of Film in Russia was founded in 1919, and focused mostly on determining and teaching the purpose of film. Filmmaking and film production was mostly

taught as on an apprenticeship model until the late 1920's with advent of institutions such as the USC School of Cinematic Arts. One other important advancement to come out of the late 1920's was the invention of the television. Though it would not be fully implemented for broadcast until the late 1940's, the creation of the electronic imaging device would set in motion a cascade of interest into the idea of mass produced video media, once that would carry on into today.

For the next 30 years, though the film industry itself would begin to experience modest changes, especially in the wake of the second world war, the educational methods of teaching and discussing film would stay relatively the same. Hollywood, still the cultural center of film, was also primarily responsible for the instruction of film production, both within and without institutions. The study of film at the time was mostly rooted in the works of foreign countries rather than the US. Most academic critics and reviews considered american films to be purely for entertainment purposes, instead opting to focus on the works of France, Russia and Italy in terms of social and artistic merit. But in the early 1960's, this began to change.

The 1960's became host to what was essentially the temporary death of the Hollywood system as for the first time, numerous independent filmmakers and entrepreneurs works began to supersede that of the major Hollywood studios. During this time period, films grew more complex and expressive, now catering more refined or at least educated audiences and as such so did the academic respect and interest in grow. By the late 1960's, film culture was in full bloom with many in the academic community considering film as the next big thing in the study of the humanities and arts. Colleges began offering more and more in the field of film during this time, and student interest was higher in film than it had ever been before. Students entering college in the 1960's had been the first generation to have grown up with television, with American broadcasting having begun in 1947 and reaching 50% saturation of all households by 1955. It was assumed that film video studies would soon be a commonplace study at all major institutions that even mentioned the arts, a thought that was carried all the way into the early 70's and one that, unfortunately, never came to fruition.

2.4.2 Modern History of Film (1970's-Present)

If the 60's was the boom of film education, then the 70's were unfortunately the bust. The vast enthusiasm for the study of film gave way to the unfortunate reality that film study and production both require a large invest in terms of both time and resources, and as general interest in the humanities in general began to drop, most film courses would begin to flounder. Film enrollment, like many other studies in the humanities, became reserved solely for those institutions who specialized in them, or left to the whims of the industry itself. There was no need to teach film as film, again, began to be viewed simply as a form of entertainment rather than art. Hollywood began to revive itself from the ashes in the 1970's and the New Hollywood had learned from the mistakes of its predecessors. It began to appeal more to the modern day youth, became edgier, more involved, and more robust. Auteur theory, the theory that believed that film was an extension of the Director's thoughts and personality, became a staple and the

world of star directors was once again revived. The world of editing and special effects was popularized in the 70's with George Lucas' "Star Wars" series, and marked an important shift in the role of technology within films and film production, one that was then followed by the release of Disney's "Tron", the first commercially successful film to make extensive use of computer graphics animation.

Film was not truly lost however. Important advancements in technology have once again started to revive widespread interest in the medium. As the popularity of VHS films began to rise in the 80's and 90's, so did interest in the VHS camera also known as the Camcorder. For the first time, people didn't need to be affiliated with either a well equipped and funded university or production company in order to toy with the art of filmmaking. People could do it on their own, in the comfort of their own homes with relative ease. VHS technology also helped to make the medium itself more readily available. What was before reserved for theater screening and television broadcasts, both requiring a modest commitment of one's time and schedule, could now be viewed at one's immediate leisure. This gave birth to a generation of prospective students surrounded at all times by viewable cinematic media, further promoting interest in the subject matter.

And as the world transitioned into the digital age, film only became even more accessible. Personal computers changed the playing field as far as video editing was concerned. Before, studios would need invested equipment that could take actual film reels and splice them together in the correct sequences, sometimes even doing so by hand. But with the advent of digital media, the physical limitations of film were no more. Editing could be done through programs and interfaces on a computer; film recordings could be deleted on shoot and then re-recorded without needing to purchase additional film. Filmmaking started to become a convenience, and as such began to seem more and more accessible to the average person. DVD's soon took the place of VHS, and as such movies could be made more and more complex, many being bundled with behind the scenes looks at how they were made further prompting interest in the subject matter.

Everything was changed though with the invention and propagation of the Internet. Video is now everywhere: independent streaming sites like YouTube, Vimeo and many many more make everyday film hobbyists into pseudo celebrities, generating a multi-million dollar industry of independent content creators. Film streaming sites like Netflix, Hulu, and many many more, have now even removed the need for physical storage media like discs or tapes altogether. Vast libraries of film dating back into the 20's are now only a few clicks away, making studying and commenting on them simply a matter of time investment. Not only that, but the internet's freeform promotion of expression has also led to the rise of numerous amateur film reviewing and criticism sites, where new ideas relating to the merits of certain films and of film making style in general can now be freely discussed and compared to the teachings and theory of old.

Film studies has begun to shift in many colleges to become film and media studies simply because video based mediums have begun to transcend the basic limitations of the theater or

screen. Programs now teach shorter form content creation, more akin to what is seen on independent streaming sites as a sign of the times though most still actively promote and advocate for the study and production of feature length films. But in the wake of this new media environment, there is a large populace of minds out there influenced and affected by videos and films everyday, and who are starving for some form of instruction.

3.0 Methodology

3.1 Primary Goals

3.1.1 Assess Potential for Film Education at WPI

The two primary components to confirming the potential of a successful film education program at WPI are student interest and the ability for the school to facilitate it with proper facilities, equipment, and staff.

It is essential that there exists a significant enough initial interest within both the prospective students of such an offering, as well as by those who would fill the roles of teaching that content. Without such interest, a competent film curricula is both difficult to maintain in terms of academic competency as well as hard to justify in terms of its fiscal investment. As such, endeavors will be made to understand the views and opinions of the WPI general body and staff so as to theorize a program that not only respects the theory and techniques of the subject matter but also actively promotes interest in and investment thereof.

It is simultaneously important for the stability of this prospective film curriculum that WPI either have the necessary resources for or the means by which to obtain the appropriate materials, spaces, and equipment needed to operate the program, as well as qualified and knowledgeable personnel to organize and instruct within it. It is thereby crucial for the success of our IQP and the future program it endorses to evaluate and detail the essential requirements of any competent film curricula and to ensure that WPI can easily and without extensive expense fulfill these requirements in full.

3.1.2 Propose Viable Structures for a Curriculum in Film

After identifying what comprises and defines a modern curriculum in film, our team will create a general outline of the structure of what a potential in-depth film program at WPI should look like, including a basic organization of course topics, sequences, and contents. Multiple potential curricula will likely be given and each will include differing descriptions outlining their respective costs of investment, potential returns, order of preference decided by our team and general educational and community benefits. Special care will be given in ensuring that these curriculum proposals stick within the respective goals of the Humanities and Arts Department and the WPI plan as a whole and will attempt to incorporate the resources and materials WPI already has at its disposal as much as possible before suggesting the acquisition of external resources and staff.

3.1.3 Present Proposals to Academic Administration for Review

The ultimate goal of this project is to construct a comprehensive report addressing all of the elements of an argument in favor of the practical measures that could be taken to expand the film education offered at WPI. This data is intended to be formally presented to the proper authoritative body of the institution to begin the process of review and consideration of executing such plan.

3.2 Determining Requirements

3.2.1 Investigation of External Academic Institutions

Our team plans to investigate the existing implementations of film programs at other academic institutions in order to better understand the typical attributes of a successful film education department and how they were developed. This will be achieved by a variety of possible means, including but not limited to:

- accessing online department and individual course descriptions made available online by these institutions
- interviewing relevant department staff, professors, or administration of these institutions via phone or VoIP methods such as Skype
- visiting institutions to speak with individuals in person and/or tour facilities

3.2.2 Investigation of Non-Academic Educators and Professionals

Film education is by no means restricted to exist in the realm of academics or formal educational institutions. Industry professionals and enthusiasts also possess an ability and desire to teach others in this field and do so on a large scale. Our team expects to locate and reach out to these groups or individuals in order to review their techniques, approaches, and resources and determine how they can be applied to the formulation of a film program at WPI.

3.2.3 Further Literary Review

Film education is of itself a less specifically detailed topic in literary discourse. However, there are certainly additional publications which we can identify and which will provide further insight into the resources necessary or commonly used by a successful film educational program, as well as the possibility of directly analyzing texts or other materials actually used in such kinds of programs.

3.3 Determining Available Resources at WPI

3.3.1 Current and Past Courses Pertaining to Film

The existence of current or past offerings of courses relating to film at WPI demonstrate that the necessary resources to provide them are present or attainable to some extent, including faculty expertise, materials, and administration competency.

We can view the current course catalogue in order to examine which courses are currently being taught and taken, as well as inquire through the library and registrar as to the contents of those of past years. Through these, we may also find it useful to contact the professors of those courses in order to gain more information about the resources they had and chose to use and what their current state is.

3.3.2 Academic Technology Center

The Academic Technology Center's mission is to promote and facilitate the integration of technological tools in enhancing education and learning at WPI. While there presently existing a number of various camcorders, digital cameras, and associated audio/visual accessories available for student and course use, it can be assumed that the ATC would be closely involved and supportive of the acquisition, allocation, and maintenance of any additional equipment necessary to the practical production or observation of film and video materials by students and classes in potential film courses. Our team will visit the ATC to evaluate their existing resources and to speak with its staff regarding their thoughts and expectations relating to such a program and its requirements.

3.3.3 The Gordon Library Film Catalog

The WPI campus' primary library, the Gordon Library, contains a large collection of popular, classic, and critically acclaimed films which are available to students and faculty. A specific component of this is the recently acquired Criterion Film Collection subset, which is comprised of carefully curated film selections by the Criterion company. We will investigate and assess the extent of this collection and its potential usefulness as reference material in possible film course curricula, as well as the potential for the expansion of this resource.

3.3.4 Faculty Experience and Fields of Study

The WPI Humanities and Arts department contains a large roster of professors and associates with a wide variety of different educational backgrounds, teaching experiences, and personal areas of interest. It is probable that there are individuals amongst them who possess backgrounds of relevance or of interest to the support, promotion, or staffing of a film program at WPI. Outside of this department, there may be others with the same qualities, such as within the Interactive Media and Game Design department, as the dearth of existing film programs at this institution may fail to immediately highlight or display desires or qualifications by these individuals. Speaking directly with WPI faculty, starting with department heads and those who

have previously taught film-related courses here, will lead us to identify these individuals and learn more about what they could potentially offer to such a program.

3.3.5 Additional Equipment and Study Spaces

Two significant programs currently present at WPI are the IMGD and music departments, with the former being an increasingly growing major area and the latter being a popular choice of students for fulfillment of their humanities and arts requirement as well as frequent minor pursuits. Both of these departments currently possess and make use of various assets in the form of computer equipment, studio space, and development software, many of which could prove to be applicable to the needs of and shareable with a film program in the future.

3.4 Gauging Interest in Film Education

3.4.1 The WPI Student Body

Perhaps the most important requirement of the introduction of a film program at WPI would be to confirm interest within the student body. Regardless of the merits of any topic of study, desire to teach it by professors, or logistical capabilities of the host institution, it is entirely impractical to propose course offerings related to it if there is not an adequate interest to be assumed to exist within the students who would be enrolling.

There are different approaches to gathering this information which we may explore.

Examples include:

- Constructing and distributing a survey to WPI students, such as through the Qualtrics platform that is readily accessible to us, in order to learn their thoughts and opinions on the idea of film education at our school as well as related topics
- Extrapolation based on the popularity of past courses relating to film at WPI based on enrollment statistics and student feedback

3.4.2 WPI Faculty and Staff

Enthusiasm for the idea of creating a film program or expanding the existing curriculum within the faculty and staff of WPI is fundamental to the potential for its proposal and development. We can investigate this facet through speaking with professors of the Humanities and Arts department and more specifically identifying instructors of existing or past film-related course offerings.

3.4.3 Within the Worcester Consortium

The Worcester Consortium, the cooperative body established to include several colleges and universities in the Worcester area and facilitate joint efforts and cross-campus course

enrollment availabilities, is potentially an important context to consider for the expansion of film studies at WPI.

We can examine the course offerings at other members of the consortium in order to evaluate the current coverage of this educational topic and its subsequent state of supply and demand, as well as communicate with students and faculty of those institutions in a similar way as our own to determine possible interest in utilizing or staffing such a program.

3.5 Course and Curriculum Structure

3.5.1 Within the Humanities and Arts Department

The most intuitive location for the introduction of a program for film at WPI would be to expand from the sparse existing courses housed within the Humanities and Arts Department. When examined primarily in the context of its philosophical and artistic qualities, this is where courses and sequences will be most appropriate. We will consult with faculty from this department including the administration in gaining an understanding as to the ideology for creating and organizing courses and curriculum, which can be supported through analysis of other subjects currently being pursued by the department as well.

3.5.2 Within the University: The WPI Plan

The WPI plan is a fundamental doctrine forming the basis for much of the philosophy and approaches towards the educational and personal developmental experiences of the university. Most relevant to our endeavor is the core beliefs in the importance of study of the arts, humanities, and social interaction of various cultures, which are visibly manifested in the presence of these departments at WPI as well as the degree requirements in their associated subjects. Our project will consider how a film program would coincide with and promote such a vision, both ideologically and in terms of its explicit potential to fulfil students' requirements.

3.5.3 Formats for Minors

While the primary focus of WPI has always been centered on applied sciences, engineering, and technology, it is not uncommon for students to incorporate and extend their pursuits in these fields to their relationships with more humanistic and artistic disciplines in the form of official minor recognitions. We will investigate the necessary structure of a film program that would be able to support such accreditation, both in its formal specifications as well as by comparing the structures of other minor offerings at WPI.

3.5.4 Formats for Majors

Though the feasibility and practical potential of the idea of introducing a major program specifically for film studies or production at WPI is likely unreasonable, it is not completely out of the question to consider it as a future goal or its capability to be incorporated with other major programs as a specific concentration. Our project will approach these possibilities and consider what relationships film may have with the current major offerings at WPI.

3.6 Formatting the Curriculum in Film Education

3.6.1 Determining Extent: Major/Minor Feasibility

The process of determining whether offerings of minor or major programs in film are feasible at WPI involves assessing both the capabilities of the university to support them, including the necessary physical and human resources, as well as the extent of interest within the student body and the faculty and staff. This project will investigate both of these factors and their relation to what the structure of a prospective curriculum in film education at WPI would subsequently be.

3.6.2 Reasonable Cost and Expense Analysis

The hiring of teaching staff, acquisition of necessary equipment, reallocation of existing spaces and resources, and the investment in development are all potential costs to be considered in the proposal of expanding the film program at WPI, as applicable to both initial capital and sustained operation. We will explore the requirements of such implementation and various possible means by which the university could fulfil them, speaking with relevant WPI financial and specific department administrations to learn more about this and compare their experiences and circumstances.

3.6.3 Determining Overlap in Fields of Study

As discussed in sections of the background provided earlier in this proposal, there are abundant relationships and overlaps with various other fields of study and art forms, including many of those currently taught at WPI. Through further literary review, research into the programs of other institutions, and discussion with faculty representing different departments of study at WPI, we will gain insight as to how film course offerings could be expanded from or created to address these related topics.

3.6.4 Training, Experience, and Adjunct Professorships

The possibility of currently employed WPI staff or faculty possessing experience or educational backgrounds in film study, production, or other related topics is very real, whether

they are currently affiliated with the Humanities and Arts or IMGD departments, or another entirely unrelated department. Our first step in identifying these persons would obviously be to contact those who have previously or currently teach film courses here at WPI, who may also be able to recommend or introduce us to any of their colleagues of interest as well. Furthermore, in conjunction with the process of examining the presence of film programs at other local colleges and universities, in addition to independent industry members or enthusiasts, we can explore the possibilities of hiring additional faculty on either a full or part time basic.

3.6.5 Interpreting Interest

After collecting data pertaining to the interest expressed by both students and faculty, we can begin to estimate what form a film program at WPI might take. This would necessitate taking into consideration what specific facets or subtopics they are primarily enthusiastic about, how popular or intensive their interest is, and to what extent they would be interested in seeing manifested, such as volume and difficulties of courses or level of certifications.

3.7 Proposal Process

3.7.1 Within the Humanities and Arts Department

Our project will investigate how one begins the process of proposing an individual course as well as a proposing a larger unit of curriculum. We hope to understand what the requirements, logistics, and practical potential that exist for presenting a proposal specifically within the Humanities and Arts department at WPI, which may be accomplished through reading published documents and forms in addition to speaking with the administration of the department to elicit those details most directly. Furthermore, it would be useful to identify and speak with faculty or students who have been involved with other proposals within the department in the past. We will examine both those that were successful and those that were not, from which we can infer the reasonings behind those results and apply them to our own initiative.

3.7.2 Within the University: Office of the Registrar

Independent of the specific protocol present within specific departments such as the above-mentioned Humanities and Arts, we will inquire as to the general structure of the proposal process within the context of the Office of the Registrar at WPI. Visiting the department to speak with its staff, seeking out related or necessary documents and forms, and interviewing professors or students that have had previous interactions with the office in similar scenarios could all be possible routes to follow in gathering this information.

3.7.3 Approving a Minor

Contingent upon and in part in conjunction with our investigations of the potential and requirements of the inclusion of an official minor offering for film, we will determine the additional stipulations and steps necessary to have such a program approved. In a closely related manner as described in previous sections, our team will discuss these possibilities with the faculty of the Humanities and Arts department (or whatever department[s] which we would identify as appropriate to house such a program) as well as the registrar to derive this information and consider the interdependent relationship it would have with the feasibility of it.

3.7.4 Approving a Major

The outlier prospect of expanding the film offerings at WPI as to include a full-fledged major degree certification would presumably entail a far greater range of requirements and motions in order to have approved by the administration. Within the same context as we will explore the approval of a minor program, we can further consider the additional information available from those sources that are applicable to such a proposition of a major.

3.7.5 Proposal Meeting and Presentation

Upon the completion of our project's research initiatives and analysis, we will arrive at a conclusion as to our team's stance on the feasibility of proposing a film program. We will organize our arguments and supporting data regarding the capabilities of the university to support the program, the merits and benefits of doing so, and the form and structure in which it ought to be implemented. Then, if deemed practical, we will go forward to formally propose such an addition to the relevant parties, be they the WPI Humanities and Arts department, the registrar, or perhaps any other important entity which we happen to identify in the course of the project.

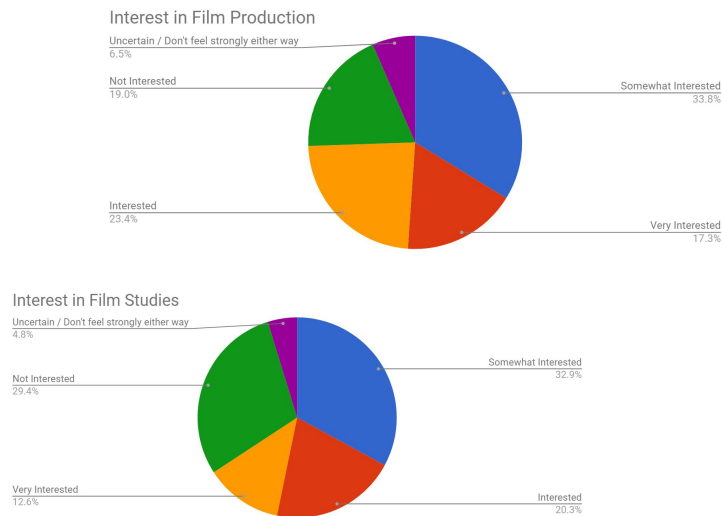
3.7.6 Additional Goal: Demonstration of Current Film Resources

A possible addition to the goals of our project would be to include a practical demonstration of the current film resources here at WPI, both as a statement to support our data and arguments as a natural consequence of our finding regarding those resource's existence, as well as to show off the potential fruits of film studies and production at our institution. This could perhaps manifest itself in the form of a documentary film on our research efforts or a persuasive pitch video that would be able to be included in our project submission as well as any official program proposal to be ultimately presented.

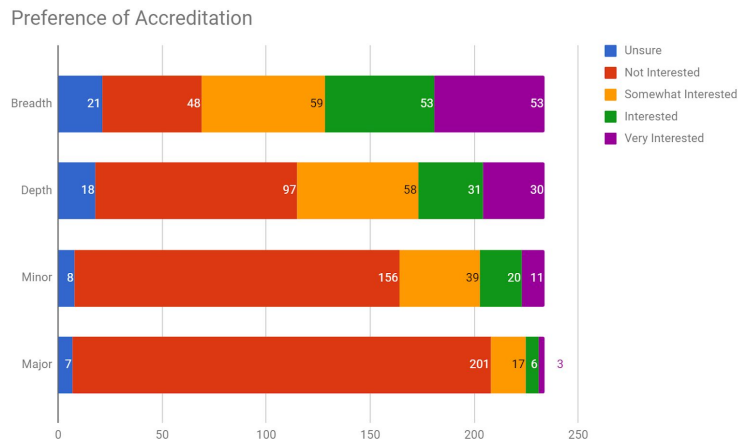
4.0 Findings and Analysis

4.1 Student Interest and Experience

The evaluation of the student body at WPI returned a wide variety of opinions and beliefs in regards to the role film should play at the University. And while not all recountings directly support the idea of increasing the role of film at WPI, the population that does is large enough that doing so should be at least considered.



Of 234 responses received in our student opinion survey, approximately one third of applicants (34.4%) replied with either “Not Interested” or “Uncertain” in regards to their interest level in Film Studies, while roughly one fourth (25.5%) responded the same towards Film Production. All other responses replied with “Somewhat Interested” or greater, indicating that there’s at least a passing interest in film as a whole amongst the majority of the WPI student body. As a trend, it also seems that there’s a noticeably greater interest towards the production side of film than there is the theory and analysis side, as indicated not only here but at various other points in the survey data as can be seen in the results to come.



In terms of how students would see themselves pursuing film at WPI, the overall consensus seems to favor a smaller, more supplemental film program rather than a dedicated Major or Minor. Out of the full 234 survey responses received, only 26 of them indicated any form of interest in a dedicated film major, a relatively unsurprising result from what is primarily a tech school. Minor interest fairs somewhat better, managing to pull 70 interested responses with 11 of which claiming a very strong or above average interest in such a pursuit. But when it comes to fulfilling the humanities and arts requirements at wpi, the responses suddenly become a lot more favorable. 119 responses, a little over 50% of all entries, claim to be at least somewhat interested in pursuing a Depth in film while a whopping 165 responses claim they would do the same for a Breadth in film. Both of these later numbers are quite impressive, suggesting that over half of the wpi populace would be interested in taking film courses to fulfill some of their basic graduation requirements. If this data holds true for the total student body, then we'd need far more film related courses and termly offerings to meet the 3-4 course requirement necessary for a basic humanities and arts depth, especially considering the standard class room capacity of around 20-30 students.

4.2 Faculty Interest and Experience

The faculty at WPI possess a wide range of experience in different fields and have a wide variety of personal interests. This is readily apparent in the biographical information listed by each department on the university's website. Both the IMGD and Humanities and Arts departments have multiple faculty members who make mention of either prior experience with or personal interest in film or video.

Joshua Rosenstock, the Associate Director of the IMGD department, has an extensive background in film and visual media. Professor Rosenstock began studying film and video art while earning a BA in Visual Arts and Semiotics from Brown University. Over time he expanded

his interests to digital media and interactive exhibits, and earned an MFA in Art and Technology from the School of the Art Institute of Chicago before joining WPI in 2005 as one of the department's first hires and the first studio art professor in the university's history. Currently, Professor Rosenstock teaches courses on Video Production and the Art of Animation, as well as Humanities Practicums in Animation and Hybrid Filmmaking.

Another member of the IMGD department, Lee Sheldon, possesses first hand experience as writer and producer in the television industry. He draws upon this in his approach to teaching storytelling and character development for video games at WPI. This is similarly seen with Ralph Sutter, who teaches digital animation and creates video shorts such as the award-winner "Mime Fight!", though most of his skills tend to be applied to art assets for video games. Dean O'Donnell, an associate teaching professor in the computer science department, also lists a background of interest and experience as a novelist, playwright, screenwriter, and gamewriter, having made the 2002 short film "Legwork" with Tom Luce and Christian Stolte.

The other courses in the IMGD relating to film and video are taught by a handful of instructors and associate professors including Edward Gutierrez, Farley James Chery, and John Howard Neely, who tend to take turns amongst one another in teaching introductory animation and video production courses.

Within WPI's Humanities and Arts department there are a couple of individuals who have taught courses specifically about film and video. James Cocola was listed for several years as "Assistant Professor of Literature, Film, and Media" in the course catalog, has an extensive personal background in film. In an interview, he detailed a rich history of involvement with the study and personal appreciation of film, especially of the "arthouse theatre" variety. While at WPI, he has taught an introductory-level film studies course. A senior instructor and lecturer in the department, Roshonak Bigonah, studied "Education and Technology" and Media with a concentration in Video Production and Advertising, which he utilizes in teaching WPI's videography course.

There are also several other faculty who make mention of an interest in film or incorporate it in their teaching methods. This includes Angel A. Rivera, who teaches many courses centered around Spanish American and Caribbean cultures and has taught at several colleges in the Eastern Massachusetts area. However, he has expressed interest in teaching courses related to film studies, and has taught courses on Spanish American film, similar to Professor Aarti Smith Madan, who teaches Spanish Film, Media, and Cultural Issues.

4.3 Subject Overlap

At WPI, there is evidence of film and video overlapping with other courses and subject areas in a variety of ways. For many years, there have been multiple courses centered around film in foreign cultures, such as "German Film", "Spanish American Film/Media: Cultural Issues", and "Spanish Film/Media: Cultural Issues". Additionally, the Humanities and Arts

department has housed courses that analyze the relationship between film and literature. As an example, “Picturing Shakespeare” explores the ways in which the classic playwrights works have been adapted to the modern medium of film. Lastly, there are many other courses that make mention of film as component of materials studied in various cultural and historical topics.

Beyond Humanities and Arts, the other department which shows a major prevalence of overlap with film and video is Interactive Media and Game Design. Beginning in the 2008-2009 academic year, the IMGD department offered a course titled “Machinima (Film Making in Virtual Environments)”. This course specifically focused on the ways in which film could be incorporated in the realm of video games and other related interactive media. Furthermore, many of the courses cross-listed between the IMGD and Art departments, which consist of teaching skills like animation and modelling, both draw upon and can be applied to techniques in filmmaking and video production.

Many of the faculty who teach these courses in the Humanities, Art, and IMGD departments note either a background of study or other personal interest in film on their personal websites or biographical entries on their respective departments’ websites. When we interviewed some of these professors, they spoke at length about the different ways in which film overlapped with their particular course contents. One of these professors, Brian Moriarty, mentioned many times the ways in which the tools and techniques used in video game production overlap with or are based upon those of film, even as far as with the production software that is used. Additionally, Professor Moriarty introduces the idea that video resources are an important marketing tool in the video game industry, both for products themselves as well as for professionals to showcase their portfolios.

Another individual we spoke with, Professor James Cocola, likewise had much to say regarding the relationships of film with other disciplines. At the most basic level, Professor Cocola notes that film is often adapted from, references, or is otherwise inspired by other artistic or literary works. In some ways, he believes that film and video production can be seen as a bridge between humanities and more technical disciplines for students, as it often employs technical skills such as the use of hardware and software tools, which he likens to the role of IMGD. Lastly, he even mentions the way in which great works of music often appear in film scores or soundtracks.

4.4 Practicality

4.4.1 Film at Other Engineering Universities

There are many colleges and universities that are similar in academic focus and image as WPI with which we can compare film curriculums. Of these we selected a sample from the Northeast United States and one major university from the West Coast. We were able to obtain information regarding the organization of each of the schools' academic departments, the degrees offered, and the types of courses available relating to film studies and production.

Perhaps one of the most comparable institutions to WPI is Rensselaer Polytechnic Institute, which is located in the city of Troy in eastern New York State. RPI, like WPI, is a private engineering school that has existed for roughly one and a half to two centuries and has a similar acceptance rate and level of prestige. Though RPI's undergraduate student body is larger, being 5,781 students to WPI's 4,123, the size and resulting learning environment is still quite comparable as opposed to that of many public universities or small schools such as Olin College of Engineering or the California Institute of Technology (CalTech).

In contrast to WPI, RPI offers more options for undergraduate degree programs in areas that aren't strictly science or engineering. Included among these are degrees in Communication, Electronic Arts, and a more broad Electronic Media, Arts and Communication (EMACS) program. Students at RPI are able to take courses in the Arts department involving film and video production, which is complemented by sections within the Communication department on documentary films, interactive narratives, and pop culture media. On the side of analysis, there are courses within the "Interdisciplinary Humanities and Social Sciences" and Literature departments that focus on the study of film theory and film's connection to U.S. culture and history.

Massachusetts Institute of Technology, located in the adjacent Boston Metropolitan Area to Worcester, has the same primary focus on engineering and science related undergraduate programs as WPI and RPI. Though it is nearly identical in size to WPI at 4,527 undergraduate students, it has a more expansive catalog of film and video courses than those of the other two universities combined. Students at MIT are able to enroll in a large variety of film-related courses located throughout multiple departments, including the departments of "Art, Culture, and Technology", Comparative Media Studies, and Literature. Like WPI, MIT does not devote an entire major area or specific program to film, but that does not stop the university from providing an expansive array of course offerings exploring diverse applications such as film production techniques, adaptations of the works of Shakespeare, introductions to various genres, and several pertaining to documentaries.

CalTech was selected for examination due to its geographic location in the opposite corner of the country. Despite barely hosting 1,000 undergraduate students, CalTech offers an impressive variety of courses enriching students' understanding of film and cinema in the

context of English, history, and general humanities. CalTech implements a very similar graduation requirement for its students as WPI, as its students must complete a significant number of courses in Humanities and Social Sciences, with at least 36 units needing to be from an area comprised of art, English, film, history, history and philosophy of science, humanities, music, and philosophy. It is worth noting that their curriculum does not prioritize film or video production over analysis, film studies, or social and cultural interactions, and that it recognizes the intrinsic educational value that these concepts can provide to the undergraduate student in their college career.

One engineering school which does elect to incorporate a dedicated film program is the Rochester Institute of Technology. RIT is a considerably larger private school consisting of several component schools and colleges specific to certain academic areas. Among these are not only a College of Imaging Arts and Sciences, which encompasses studies in graphic design and new media design, but there also exists an entire entity known as the School of Film and Animation. Of particular interest is its interior department of Film and Animation/ Motion Picture Science, which teaches a thorough sequence of courses on nearly all aspects of animation, screenwriting, film production, acting, and directing. However, RIT does not restrict its film curriculum to those in that specific major area, and offers a plethora of courses within several other departments such as Communication, Fine Arts, English, History, and Anthropology, demonstrating the university's awareness of the role and potential applications of film in outside topics.

4.4.2 The Higher Education Consortium of Central Massachusetts (HECCMA)

Formerly known as the Colleges of the Worcester Consortium (COWC), the Higher Education Consortium of Central Massachusetts (HECCMA) is an association comprised of 11 public and private colleges and universities within the city of Worcester and the surrounding region. Exploring the courses and programs offered at the different member institutions of this organization serves two key purposes.

First and foremost of these purposes is that students enrolled at any of the individual member schools may cross-register for courses offered at another, and there are many film-related courses available. While this is a great opportunity for students at WPI who are interested in the subject, there are still disadvantages to them not being hosted on their own campus, such as the necessity to travel and the logistical challenges of WPI's unique term structure relative to the traditional semester system of the other colleges.

The other members of the consortium vary greatly from one another in terms of their academic focuses, with the College of the Holy Cross, Anna Maria College, and Assumption College identifying as liberal arts, Cummings School of Veterinary Medicine, UMass Medical School, and MCPHS University relating to medicine, and Worcester State University and Quinsigamond Community College offering a fairly universal array of programs as public institutions. The remaining two members, Becker College and Clark University, are private

colleges that also offer a wide variety of courses of study within their internally organized schools and departments, and are among the members that host the most film-related curricula.

Nearly all of the members of the consortium offer a similar or better list of film courses as WPI, with some exceptions. It is not surprising that the strictly-medical colleges did not list any such courses on the consortium's database, but it was also found that Quinsigamond Community College only has two. However, those two courses cover both sides of the topic of film, with one being devoted to the history, theory, and analysis of film (Survey of Hollywood Film: 1920 to Present) and the other touching upon the theory and practice of video production (Digital Video Fundamentals).

Much like WPI's catalog, Worcester State University's film courses are primarily restricted to the contexts of other disciplines, such as foreign cultures, philosophy, and literature. Though there are only two courses dedicated to video production ("Introduction to Video" and "Video Editing"), the campus boasts considerable resources and facilities, including computer labs, a studio, editing suites, and field production equipment.

Anna Maria College's School of Humanities houses a Media Studies minor, which among other disciplines has a few courses pertaining to film studies and production. These include "Introduction to Film Studies", which covers not only film theory but production and editing techniques, "Video Production", which specifically teaches aspects of cinematography, and even "Screenwriting", which is applied to the context of feature-length films.

The courses available at Assumption College are interesting in that there is not a great number of them, about the same as that at WPI, but they are nonetheless considered the basis for a Media Studies and Production specialty, which can be pursued as part of an English Major with a concentration in Writing and Mass Communication. These courses that are available appear to be nearly the same distribution of topics as those at WPI, with Introduction to Film Studies, a basic Video Production I, and a few others such as foreign-specific cinema and gender in the context of film.

The two schools within the HECCMA consortium with the strongest film presence are the College of the Holy Cross and Clark University. The College of the Holy Cross offers a variety of courses with topics relevant to film, with a fair number of film-specific courses available. For the most part, film appears to be treated as a subtopic within the realm of theatre studies. Nearly all of the film courses taught at Holy Cross are listed within their theatre department, which is a large and prominent institution. Elements of directing, script writing, acting, and set design are offered, which are universally applicable to visual performance arts in general. The department does seem to focus most heavily on the production side, with the availability of a film studies minor being relegated to the Center for Interdisciplinary Studies as opposed to being housed within the theatre or any other specific departments.

The most extensive film program within the HECCMA consortium is by far that of Clark University. Though its student body is considerably smaller than WPI's, Clark hosts a wide range of majors, minors, and concentrations across disciplines in the humanities, social sciences,

natural sciences, and engineering. What is perhaps the most relevant to this project though is their Screen Studies major. It is located within the Department of Visual and Performing Arts in the Traina Center for the Arts, alongside majors in Art History, “Media, Culture, and the Arts”, Music, Studio Art, and Theatre Arts. This exists as the only major program in the consortium devoted specifically to film, claims to be among the first programs in the nation to “explore moving-image media beyond the boundaries of traditional film studies”, and boasts a curriculum rivals that of prominent art schools. Available as both a major and a minor, the screen studies program at Clark University offers courses covering the history, theory, and aesthetics of film, television, and new media as well as the practical aspects of digital video production. There is a widespread emphasis on interdisciplinary collaboration and connecting topics and work to related fields.

It may be the most useful, however, to examine the film-related courses offered at Becker College, as they too have an Interactive Media and Game Design program. Likewise, many courses are contained within that department and/or framed in the context of their applications to video game content, such as the case of “Storyboarding Animation” or “Digital Cinematography”. The latter of which was previously titled “Machinima”, and is similar in content to the course of that name which was previously a mainstay of the IMGD department at WPI for several years. However, there also exist several other courses of interest within other departments, such as the English, Communications, and Humanities. These courses cover screenwriting, digital video production, historical cinema, film and genre analysis, and more. There is even a course hosted by the Business Management department, “The Business of Screenwriting”, that goes in depth into how to approach the industry.

4.4.3 Current and Past Courses at WPI

Within the last decade, there have been a number of courses with varying degrees of relevance to film studies and production offered here at WPI. The most long-standing of these appear to be two courses cross-listed between the Spanish and Interdisciplinary departments; “Spanish American Film/Media: Cultural Issues” and “Spanish Film/Media: Cultural Issues”. With the hiring of new faculty, another foreign language department saw the addition of a related film course with “German Film” appearing in 2010.

For several years, spanning from 2008 to 2015, the IMGD department hosted “Machinima (Film Making in Virtual Environments)”, which, as its title suggests, covered ways in which filmmaking concepts could be applied to video games and other interactive mediums. This was accompanied by courses dedicated to specific production techniques, including “3D Modeling” and “Animation II”, which were introduced in the 2012-2013 catalog and the next year’s respectively. Both make specific mention of their applications for video production and filmmaking within each of their course descriptions.

However, courses specifically tailored to film studies and video production both seem to be only very recent inclusions at WPI. The first official listing of a film studies course found is in

the 2015-2016 catalog, though it was not actually recorded as having been taught until the Spring of 2017. After the year of absence of the Machinima course, a much more general video production course emerges in the 2016-2017 edition of the catalog, offered by the art department. Foremost in the course's description is the purpose of introducing to students "concepts and techniques for live action digital filmmaking", as well as "principles of cinematography" and the "stylistic elements of various genres of filmmaking".

4.4.4 Spacial and Equipment Requirements

Like any traditional collegiate subject, film education in both production and studies has a particular set of materials and tools accompanying it which are either required or strongly recommended in order to teach the subject matter accurately. Under pragmatic review, some of these materials are obvious: Camera's for filmography courses, video screens for film review in film studies courses, computers for video editing and processing, etc. However, the extent to which these materials are required, specifically the quantity and quality standards necessary to meet today's educational standards, is notably less intuitive. By turning to various leading sources in film and film education, we've compiled a list of materials and methods highly recommended for the teaching of film, which then forms the basis by which can evaluate the materials and resources currently available at WPI.

To teach film production it is essential to have proper technological equipment, allowing students to gain hands on experience with as close to professional or at least proper equipment as possible. Unfortunately, film equipment can be quite expensive, with many higher end cameras reaching into the thousands and therefore making purchasing such equipment an undue and unreasonable burden to shoulder onto individual students. Instead, many universities opt to purchase the equipment themselves and simply loan them out to students instead, making them far more accessible.

The University of Kansas' film and media studies department, for instance, has a 2000 square foot store room dedicated to the storage and loaning of licensed Cameras including both high end 4K ready professional level cameras as well as HD camcorders for smaller teaching projects, Audio recording equipment including various microphones and mounts, as well as several lighting setups for staging scenes. Somewhat closer to home is Clark University's rental program, allowing students to take out either individual camera equipment for individual projects or rent out for a small fee their media service team, which will assist in the setup, break down, and instruction of the equipment used by the students during their project work for set durations of time.

The more technological side of film production also dictates that courses have adequate lab and computer space as well, equipped with editing and video processing programs that can allow for quick turn over from raw footage to finished video. Recommended video productions suites include scriptwriting programs such as Celtx or Adobe story, editing software such as Adobe Premiere or Final Cut Pro (mac only), special effects suites such as Adobe After Effects

and Autodesk Smoke, audio processing software such as Adobe Audition, Avid Pro Tools and Audacity and animation and CG suites like Adobe Animate and Autodesk maya, just to name the most frequently mentioned and thereby most popular offerings. Each of these programs alone can also be rather process intensive, requiring computers that have dedicated graphics hardware to function in a timely and efficient manner, and so many colleges such as the aforementioned Clark choose to consolidate their machines into one or two main media study labs, for efficiency. This does however run the risk of competing for classroom space across courses, as there can only be so many classes occupying those labs at the same time.

Moving on from considerations in film production, film study also has requirements that may exceed the normal classroom environment and require notable levels of attention. The most notable of these requirements is the necessity of having a dedicated screening space with which to view films. While most modern collegiate classrooms are outfitted with projectors and projector screens by default, these projectors may not always be adequate for viewing and analysing a film. Low luminosity or resolution on the projector's end can alter the way in which one experiences a film, and make study and analysis difficult or at least limited. It is then preferred that courses which plan to make a regular habit of showing films in class for review be kept within classrooms or lecture spaces which allow for comfortable viewing of said films so as to not break immersion or alter the intended experience. Many colleges even dedicate themselves to purchasing the original equipment used during a film's original run, as doing so can simulate the experience of viewers at the time and allow for a more authentic and historical reflection of the film being viewed.

4.4.5 Spatial and Equipment Resources at WPI

WPI itself actually has a surprising supply of materials which are applicable to the study and teaching of film. The most immediate objects of note can be found within the catalog of resources maintained by the academic technology center, the materials provided and rentable through the Gordon Library, the various classrooms and additional spaces located throughout Salisbury and Fuller Laboratories, and under the jurisdiction of a handful of clubs and organizations on campus.

The Academic Technology Center at WPI is the organization responsible for the management and usage mentoring of all loan devices provided by the school. While this usually is reserved for things such as laptop rentals, poster printing, and basic classroom tools and technologies, it also extends into multimedia device rentals. From the ATC's public inventory listing, this includes a variety of cameras (GoPro Hero 3+, Canon GL2 MiniDV 3CCD, UltraHD FlipCams, etc.), Tripods mounts, Audio Recorders (Edirol R-09, Sony ICD-UX71, Sony ICD-MS1, and Sony ICD-MS515.) and LCD projectors that any Professor or student may reserve either for their course work or for presentation and demonstration purposes. Traditionally, these materials are used for video reports in other non-film related courses but they

can and have occasionally been used for filmography either in the few listed film courses WPI has offered or through various Humanities and Arts capstone practicums.

In addition to the collection offered by the ATC, there are also some notable offerings within the Gordan library which could be used for film study and even in some cases for film production. The most prominent of these offerings is the WPI film series, a collection of classic, eclectic and historic film reels donated to the school and kept in storage within the library. This includes full definition reels of classics such as Stanley Kubrik's "2001: A Space Odyssey", Wim Wenders "Wings of Desire", and many many more. The library also houses an extensive collection of books and texts on film education, many of which can be rented out and reviewed at a student's leisure, and can offer professors looking to teach in film plenty of options to choose from and review as supplementary reading when structuring their specific courses.

At WPI there are already several multi-media labs which are used for projects in both the Humanities and Arts department and the Interactive Media and Game Design program. The three most prominent spaces are the mixed media labs in Fuller 222 and Salisbury 123 and the Zoo lab, room FL A21, located in the basement of Fuller Labs. The workstations in these specific labs are all high end processing computers with dedicated graphics hardware for use in both Game Design and Art related courses. In addition to this, each of these workstations is also preloaded with the Adobe Creative Cloud suite, a packaged multimedia software suite that includes a number of programs applicable to video production such as Adobe Premiere, Adobe After Effects, and Adobe Story. These labs would be ideal for use in video editing as a result, and have been used as such in the few video related courses and practicums held at WPI in the past, though it is important to note that all of these labs are currently very well contested by both of the aforementioned departments.

Aside from these labs there are also additional spaces on campus worth noting that would prove invaluable if not beneficial to a budding film program at WPI. In the Basement of Fuller Laboratories, aside from the zoo lab there are also a handful of interesting spaces that would be ideal for more experimental courses in film. For instance, directly across from the Zoo lab is a room shared between the IMGD department and the Game Development Club. While the majority of the room is used as storage atm, the room itself does have several lighting rigs, an adjacent sound and editing room and, most notably a staged green screen setup in the corner of the room. Reutilization of this space, perhaps even as a fully furnished set space would allow for prospects in green screen techniques, special effects and set lighting and operation to open up, fleshing out the school's film production roster. On the same note, further down the hall in room B16 is the WPI Motion Capture Lab. This lab is a fully established MoCap rigged primarily used in game design, but which could be used for higher level CGI courses in film as well. Prior IQP's such as the 2011-2012 Motion Capture IQP have documented the equipment and provided instruction manuals and usage guides for public access to the campus, and so it would not be unreasonable to consider using this space to the fullest when considering experimental courses in film production and special effects.

Several clubs on campus also have access to a surprising amount of materials and services which could prove useful for film education at WPI. The student sketch comedy group known as Kilroy for instance has within their club their own high end, cinema style camera and recording gear with which they use to shoot their films and have had a large amount of experience when it comes to writing, directing and producing films on campus. Their expertise and cooperation could prove very useful and would be of direct benefit to them as an increase in the interest and understanding of film could lead to an interest in their organization as well. The student organization known as Lens and Lights has a wide variety of experience in large scale lighting and sound equipment. For instance, it is actually Lens and Lights that manage the 16mm, 35mm, and 70mm projectors used to screen various films and showings on campus in the Upper Perrault Lecture hall in Fuller Labs, including the entirety of the WPI film series. In addition to this, Lenses and Lights also is generally responsible for the lighting of both large campus wide events and concerts as well as the lighting for the entirety of the Little Theatre's drama productions and plays. This skill set can easily extend into film lighting and staging, provided the space and equipment allows.

One last thing to consider as well is the currently in development Foisie Innovation Studio. The studio, currently in construction in the space where the old alumni gym used to reside, is slated for completion in late 2018 and holds a lot of promise for film related courses. Already on the docket for the studio are several high-tech, state of the art laboratories for use in design and project work. As the plans for how this space will be utilized is still in development, it is possible that action now could allow for some part of this new and unreserved facility to be dedicated to multi-media production, namely as both a studio space as well as editing labs for piecing together films. Since the main focus of the building is on hands on projects, robotics, and entrepreneurship, film can easily slot right in as a way to develop marketing and presentations for such endeavors while still allowing for those dedicated to film to have a space to fully demonstrate their talent. An added bonus is that a makerspace has already been confirmed for the building, meaning things such as cinematic props, set designs and custom film riggings may be possible, and even opening the door for the more hands on, behind the scenes aspects of film production and set design.

4.5 Faculty Interest and Experience: Analysis

There is an abundance of evidence to suggest that the current faculty at WPI have a wealth of experiences, interests, and skill sets which would support the study of film and video production at the university. The existing film and video courses at WPI have been taught by a variety of different professors and instructors, which shows that there are several individuals sufficiently qualified and interested in the field. Furthermore, there are some professors at WPI who are passionate about film and have particularly rich backgrounds with the subject. These

individuals could very well allow for advanced courses to be offered in addition to establishing introductory classes as a mainstay.

The majority of the professors with which we identified a connection to film are divided between the IMGD and Humanities and Arts departments, along with the latter's various sub-departments such as those for foreign languages. There is a notable correlation between the respective departments and their relevance to either film study or production, with courses and professors in IMGD covering techniques and applications of filmmaking and those in the Humanities department focusing more on the theory and analysis.

Among the professors listed as belonging to the IMGD department, many of them have first-hand experience creating works of film and video. They comprise the faculty responsible for teaching the current courses on video production, animation, and other related skills and techniques, and could be expected to assist in the expansion of that area. In addition to the instruction of the subject material, they are able to share valuable knowledge of real world applications and the industry behind it.

The faculty of the various Humanities departments also possess a variety of backgrounds which are significant in their potential for application to teaching about film studies. Though given the specific title of "Assistant Professor of Literature, Film, and Media", it was not until recently that professor James Cocola taught any officially-listed courses on the topic of film. However, it is a mark of success and progress that such a course now exists. With a long history of study of the discipline, Professor Cocola offers a unique and much-needed perspective, being familiar with the more formal side of film theory.

Other professors in the Humanities departments who have for the most part taught film courses within the context of foreign languages and their respective cultures, or included film among other media types in literature, are nonetheless a valuable asset in the pursuit of furthering the presence of film at WPI. Beyond their familiarity with the underlying concepts of film study, they demonstrate an appreciation for film study and its interdisciplinary applications.

4.6 Subject Overlap: Analysis

It is readily apparent that elements of film and video are related to other subject areas and courses in many different ways. In some instances, film is used as a medium for the study of a particular topic. Other times, foreign cinema is reviewed as a means of learning more about the underlying culture. Yet in other cases, certain fundamental concepts, principles, tools, and techniques of film theory and filmmaking are either directly or indirectly integrated within other creative processes and disciplines.

At WPI, film has had at the very least a small presence in the curriculum. For more than a decade, courses in the Spanish department have studied film from different Spanish-speaking cultures, such as with "Spanish American Film/Media: Cultural Issues" and "Spanish Film/Media: Cultural Issues". With these courses, there is a balance between focus on the film

content itself and the analysis of the cultural background of those who created it. However, this is not entirely different from any other kind of film study, as the examination of the context of society's influence and film's influence on society is a core exercise in the analysis of film in general. This continues to be seen with "German Film", as well as a variety of scattered offerings in the English department, such as those which look at film adaptations of classic literature.

The other most significant area of overlap of film at WPI is with the IMGD department. The Machinima course is certainly the clearest example of how film production can be applied and adapted to other creative mediums. In this and other courses in the department, concepts of filmmaking are referenced extensively in how they can be borrowed in the development of video games. Furthermore, many of the classes teaching production techniques are applicable to film and video as well as other interactive media. The various courses cross-listed between the IMGD and Art departments such as Animation and 3D Modeling are absolutely relevant to video production, and additionally many of the software tools involved are even the same.

What is interesting, however, is that despite the widespread examples of film study and production concepts being applied to other topics and disciplines, those core ideas are simply assumed as background knowledge or briefly introduced in that restricted context of application. With courses on film studies and video production only being added to the course catalog in the past couple of years, WPI students may have lacked this background knowledge and missed an opportunity to enrich their experiences with these other courses. In the same way that certain engineering and computer science courses at WPI have a list of recommended background in different core math classes, students enrolling in foreign film and IMGD courses could be considered to need to have previously taken the introductory film study or video production courses in order to make the most of them.

4.7 Practicality: Analysis

There are several key elements to consider when it comes to the question of the feasibility of an expanded film program at WPI. Among them are the presence of faculty to support it, the interest of students to enroll in such classes, and the availability of necessary resources. Furthermore, the potential for success of implementing such changes can be inferred from the existence of film curricula at other institutions similar to WPI, as well as simply the performance of the current and past film courses offered at WPI itself.

As discussed in the previous section, the faculty at WPI demonstrate both a willingness and a competency to teach courses on various topics spanning film study and video production. Their past experiences and educational backgrounds are expansive and provide a foundation for both foundational classes as well as varying specialized topics. Of equal importance is their personal interest in the area, as enthusiastic teaching staff are able to inspire students and foster creativity.

The second population essential to the success of film at WPI is a sufficient body of interested students. Within the respective section, the estimated number of these students and the extents of their interests are examined at length. However, this component can also be extrapolated further by exploring the state of film in the curricula of other comparable institutions while keeping in mind the similarities and differences between certain features such as their overall academic focuses and relative sizes.

4.7.1 Film at Other Engineering Schools

Some of the best sources of comparison are found in other technology and engineering colleges. There are many colleges and universities that are similar in academic focus and image as WPI with which we can compare film curriculums. Of these we selected a sample from the Northeast and one major university from the West Coast. We were able to obtain information regarding the organization of each of the schools' academic departments, the degrees offered, and the types of courses available relating to film studies and production.

As mentioned previously, one of the most comparable institutions to WPI is Rensselaer Polytechnic Institute. RPI is able to offer a wider array of film courses than at WPI, which appears to be indicative of a broader scope of subject areas present there in general. If nothing else, this shows that a similar institution has been successful including film alongside a variety of other topics. While it might be tempting to infer that RPI's broader film offerings are due only to its greater size, another regional neighbor of WPI contradicts this argument. Massachusetts Institute of Technology has a far more expansive collection of film and video courses than either of WPI or RPI despite having roughly the same number of students as WPI. While being about the same size and having the same primary focus on technology and engineering, MIT shows an additional dedication to the topic of film and has ultimately been successful with this pursuit. Even more telling of the ability of schools to sustain a diverse curriculum of film-related courses regardless of size is the case of CalTech, where an undergraduate body of less than half of WPI's is met with far more courses in film, video, and cinema pervasive throughout a number of contexts.

The situation at RIT is considerably different given their decision to host a dedicated film school. With that comes a wealth of resources and faculty able to support related courses even outside of that specific body. However, the establishment of such an institution operating as a constituent of a similarly-oriented engineering university speaks to the appropriateness of teaching film and video production alongside what is more traditionally included as engineering.

4.7.2 The Higher Education Consortium of Central Massachusetts (HECCMA)

The last category for comparison is with that of the other member of the Higher Education Consortium of Central Massachusetts (HECCMA). Nearly all of the members of the

consortium offer a similar or better list of film courses as WPI, with some exceptions. It is not surprising that the strictly-medical colleges did not list any such courses on the consortium's database, but it was more perplexing that Quinsigamond Community College only had two. Despite this, those two courses cover both sides of the topic of film, with one being devoted to the history, theory, and analysis of film and the other touching upon the theory and practice of video production.

Much like WPI's catalog, Worcester State University's film courses are primarily restricted to the contexts of other disciplines, such as foreign cultures, philosophy, and literature. Though there are only two courses dedicated to video production, the campus boasts considerable resources and facilities, including computer labs, a studio, editing suites, and field production equipment. This is also similar in situation to WPI, where many of the same resources are either still in existence or once were, suggesting perhaps a more widespread trend of historical trend of film attaining a momentary place at the forefront of universities realized or even just projected interests.

Anna Maria College's School of Humanities houses a Media Studies minor, which among other disciplines has a few courses pertaining to film studies and production. These include "Introduction to Film Studies", which covers not only film theory but production and editing techniques, "Video Production", which specifically teaches aspects of cinematography, and even "Screenwriting", which is applied to the context of feature-length films. While these appear to adequately cover all of the bases of film, it is not an extraordinarily long list of courses, and could perhaps be something within reach of WPI as well.

The courses available at Assumption College are also interesting in that though there is not a great number of them (about the same as that at WPI) they are nonetheless considered broad enough to form the basis for a Media Studies and Production specialty, which can be pursued as part of an English Major with a concentration in Writing and Mass Communication. These course that are available appear to be nearly the same distribution of topics as those at WPI, with Introduction to Film Studies, a basic Video Production I, and a few others such as foreign-specific cinema and gender in the context of film. Whether this indicates the robustness of WPI's film curriculum or the superficiality of film in Assumption's specialty designation is worthwhile to consider.

The College of the Holy Cross and Clark University, the two schools within the HECCMA consortium with the strongest film presence, are thus especially important in order to determine where the limitations of WPI may be encountered. At Holy Cross, a good number of film-specific courses are available, though for there is a much larger number which exist as a subtopic within theatre studies. Given the notable presence of student theatre productions at WPI, it is surprising to see that there is not already more overlap with film in course offerings or even extracurricular organizations.

Though its student body is considerably smaller than WPI's, Clark has an entire major program dedicated to film. In this case, it is radically different in the ability to make available

courses intended to enrich a student's education, as would be the goal at WPI, as opposed to here where it is designed to be the main focus of it.

Once again, it is interesting to compare the presence of film at Becker College to that at WPI. As film and video production at WPI have tended to be associated with the content and the faculty of the somewhat unique IMGD department, viewing the state of film at another school which hosts that same department is particularly useful in identifying what characteristics are common between the two which are attributable to film's successfulness there. At the basic level, WPI's IMGD department naturally will have many similar courses and curricula, as well as ubiquitous equipment, production software, and facilities. Equally if not more important is that the professors and instructors at WPI and Becker have similar skill sets and background areas, indicating that the faculty of WPI could be expected to be just as successful teaching a similar set of courses themselves.

4.7.3 Spacial and Equipment Requirements: Analysis

Comparing and contrasting the requirements and setups used by other colleges to the materials and resources available at WPI yields some interesting similarities. Many of these similarities are especially striking due to the noticeable difference in available course offerings between WPI and other school. For instance, there is a notable similarity in how Clark, a consortium school with a dedicated film program already, and WPI structure their media technology departments and rentals. Comparing the inventory and rental lists of both departments, many of the services provided by Clarks media technology offices parallel similar services offered by WPI's Academic technology center, from camcorder and microphone rentals to seminars and consultations in editing and shooting provided by each departments staff members. If WPI, a school which only has two officially listed core film based courses in it's registry, has roughly the same structure and level of media technology support as Clark, a school that offers film as a stand alone major, it begs the question of why WPI hasn't expanded upon their course offerings in any major way, since it can be implying that the university has more than enough support and experience to handle and manage the equipment needed to do so. There are also clear parallels between what is required for classroom space and what WPI already has, or at the very least can or will have in the near future.

5.0 Conclusion and Recommendations

Through the course of the research and exploration conducted during this project, it has become apparent that WPI has historically lacked significant support for film studies and video production, but that such a program would be relatively easy to implement and would be of great benefit to the university. The importance of film education for undergraduate students cannot be understated, both for its practical application across courses as well as its influence on students everyday media experiences. After reviewing the manner in which film is taught at other universities and colleges and comparing it to the materials and resources already available to WPI, it seems quite easy to speculate that a expansion of WPI's film offerings would not only be beneficial for the school, but easy to implement and of low impact on the university's financial and managerial resources. The university can therefore improve the quality and extent of the presence of film and video studies in its undergraduate curriculum and can do so without major issue nor inconvenience.

5.1 Future Research

Though our research covered a good deal of material, there are areas of our initial plan that were left uncovered, with information we were not able to obtain that we feel could further support or aid in the argument for the expanding upon films role at WPI.

One basic area in which we were unable to cover is the promotion of film courses and gaining notoriety for a fledgling film department. Our student interest survey revealed that many students at WPI simply aren't aware of what offerings in film are available to WPI, something that adding additional courses and expanding the program might not be able to fix. One route that future research could then take is reaching out to various universities to gain recountings of how they, when establishing their film programs and offerings, they managed to promote and spread awareness of their programs and courses. A future project could even then be dedicated, should new film courses be offered, to carrying out these tactics and spreading awareness for film and other courses on campus, or even establishing a system or method of awareness for all courses depending on the extent of the project.

Some other areas which could be looked into in a more indepth fashion is in regards to the cinematic climate of worcester and the various ways the school can integrate more with such a environment. A handful of other universities took this approach when developing and fostering their own film programs, both local and national, and it wouldn't be too big of a stretch to see WPI doing the same. Clark, for instance, partnered with a local theatre "Cinema 320" and its owner to showcase, promote and preserve a series of eclectic films and blend both the culture behind worcester cinematic culture with the study of film and film production. They also host film festivals at the theatre frequently, and as a result, have fostered a great deal of community

involvement through their film program. A project or even just a report based on how WPI's film program can allow for such cross collaborating and community involvement with the city would be beneficial and a great fit for WPI, emphasising the Universities focus on hands on projects and community/world involvement.

5.2 Recent Developments

During the lifetime of this project, WPI has actually demonstrated some very important steps in furthering their support for film. This can be seen on both fronts of film education, both with film studies and video production. Initially listed as an experimental course, "Film Studies" has already transitioned into a full-fledged course titled "Introduction to Film Studies", providing a foundation for the film theory and analysis. Meanwhile, Video Production has finally appeared in the course catalog under the art department, teaching the fundamental skills and processes of the medium. Additionally, multiple courses across the IMGD and Art departments touting specific relevance to applications in film have sprung up, such as animation and 3D modeling. The addition of these courses indicates a positive trend for WPI's support of film, increases exposure and student interest, acts as a proof of concept for its successful inclusion, and provides a basis for the growth and development of additional topics or advanced courses.

5.3 Recommendations and Changes

With all the research gathered, it has become clear that the extent of film's presence at WPI is simply not acceptable given the modest demand for it and level of preparation WPI has already unknowingly undertaken. As a result, the authors of this report strongly recommend in favor of increasing the presence and offerings of film as an educational topic at WPI. There are several ways thereby to approach this and to allow for a more encompassing overview of film.

5.3.1 Retention of Foundational Courses

The momentum generated by the establishment of introductory film and video courses at WPI is important to preserve. In terms of the value added to the undergraduate education, these core courses provide a great asset. Not only are the skills conferred by these classes believed to be a fundamental media literacy in the modern era, but they are incredibly relevant to students in a wide variety of different majors at WPI, especially in the realm of IMGD where there is an abundance of direct and indirect overlap of concepts and techniques.

The effect of the continued inclusion of these particular courses also serves a number of benefits to film's existence and future at WPI as a whole. While these courses are present, the topic of film and video studies will gain visibility to both the student body as well as the faculty, which in turn should result in increased enrollment, popularity, and support. Furthermore, the

experience of the administrative and teaching staff involved will mature over time and improve the quality of said courses as well as the prospects of expanding to offer more advanced topics.

5.3.2 Expansion of Catalog

Expanding the course catalog offerings in film studies and film production is the most clear cut way to begin improving the extent by which film is taught at the university, and is then the first step the university should take. While our two core course offerings are strong, they are also unfortunately limited in both the depth and extent in which they can truly cover the various facets of film education. There simply isn't enough time in which to teach everything, nor is there enough time to truly allow students to both learn the nuance of film theory and be able to put it to full use. At many universities operating on a much more lenient 3 term schedule, they have tiered course offerings for both film study and production, with courses such as Intro to Filmmaking being followed with courses like "Advanced Filmmaking", "Special Effects for Film", "Videography" and several more. A more tiered approach would allow the courses we currently have to focus in on the basics, as well as offering more time for higher level subjects in film to be explored and experimented with.

As was previously suggested, as we have both Motion Capture and Green Screen rooms on campus, developing courses that specifically utilized both of those rooms and technologies to the fullest would also be a great start. A course dedicated solely to implementing riggings and motion capture techniques would blend well with a effects and animation section of a film curriculum. Currently, an experimental course in the IMGD department, IMGD 440X: Motion Capture Techniques, already does something similar but with an added emphasis on gaming as opposed to film. The skill sets though are notably interchangeable, and like many other courses in the IMGD department, can be counted towards a focus or minor in film very easily.

5.3.3 Accreditation and Departmentalization

Expanding upon courses is one thing, but offering full fledged programs is something else entirely. As our student survey suggests, a majority of students at WPI would greatly consider taking film and video related courses as a part of their humanities and arts requirement, with many also expressing a strong desire to do so as the main depth of their requirement. As such it is important to establish a department based around the management of such a specialization and focus.

Several options exist for establishing such a department. Through varied interviews held with staff on campus, two main options were discovered and strongly advocated for, each of which holding their own merits and consequences: Starting a new sub-department under the Humanities and Art's department similar to what currently exists with most art focuses or incorporating film and media studies as a sub-focus of interactive media and game development. Truthfully, both these options are equally viable considering that there is a strong overlap

between both departments and film.

In regards to the Humanities and Arts department, they are the department which oversees HUA project completion and the Depth and Breadth selection and approval process. Keeping the management and development under the wing of the humanities and arts is more appropriate for building up only a smaller, more supplemental course program in film akin to a depth. It also helps that a majority of professor's interested in the film studies side of film are also professors who teach under the Humanities and Arts department (Cocola, Sanbonmatsu, Etc).

6.0 Bibliography

- Aldridge, Henry B., and Association Michigan Speech. *Film Studies: A Time for Action 1974*.
- Baker, James, and Patrick Toland. *Teaching Film at Gcse*. London: BFI, 2007.
- Bolas, Terry. "Screen Education from Film Appreciation to Media Studies." (2009).
- Braudy, Leo, and Marshall Cohen. *Film Theory and Criticism : Introductory Readings*. New York: Oxford University Press, 1999.
- British Film, Institute, Christine Gledhill, London University of, and Education Institute of. "Film and Media Studies in Higher Education : Papers from a Conference Organized in 1979 by the Bfi and London University Institute of Education." London, 1981.
- Canadian Film, Institute. "The Guide to Film, Television, and Communication Studies in Canada." *The Guide to film, television, and communication studies in Canada* (1985). Curriculum, Online. "Film Education."
- Dalton, Mary M. "The Hollywood Curriculum Teachers in the Movies." (2004).
- Dartmouth, College, Center Academic Skills, and Humanities Films for the. *Academic Success for Dartmouth College Students*. Princeton, NJ: Films for the Humanities & Sciences, 1997.
- Davis, Ed, Irma Whitford, School Australian Film and Television, and Resources Open Program. *Curriculum*. [Canberra]: Australian Film and Television School, Open Program Resources, 1980.
- Davis, George Henry. *Our Objectives Memoranda for Undergraduate Students*. New York, N.Y: [Marbridge Print. Co.], 1924.
- De Valk, Mark, and Sarah Arnold. *The Film Handbook*. London; New York: Routledge, 2013.
- Donald, James, and Michael Renov. *The Sage Handbook of Film Studies*. London; Thousand Oaks, Calif.: SAGE, 2008.
- Fensch, Thomas. *Films on the Campus*. South Brunswick: A.S. Barnes, 1970.
- "Film Matters." *Film matters* (2010).
- Fischer, Lucy, and Patrice Petro. *Teaching Film*. New York: The Modern Language Association of America, 2012.
- Goodwyn, Andrew. "English Teaching and the Moving Image." (2004).
- Grant, Barry Keith. *Film Study in the Undergraduate Curriculum*. New York: Modern Language Association of America, 1983.
- Grieverson, Lee, and Haidee Wasson. *Inventing Film Studies*. Durham: Duke University Press, 2008.
- Horrigan, William James, Greg Beal, David H. Chadderdon, and Institute American Film. *The American Film Institute Guide to College Courses in Film and Television*. New York: Arco : Distributed by Prentice Hall Trade Sales, 1990.
- Hunter, Charles F. *A New Look at the Broadcast Curricula 1972*.
- Katz, John Stuart. *Perspectives on the Study of Film*. Boston: Little, Brown, 1971.

Katz, John Stuart, Curt Oliver, and Forbes Aird. *A Curriculum in Film*. [Toronto: Ontario Institute for Studies in Education, 1972.

Kilbourne, Jean. *A Practical Guide to a Student-Centered Film Study Course* 1971.

"Kino the Western Undergraduate Journal of Film Studies." (2011).

Kohl, Jason. "Film School : A Practical Guide to an Impractical Decision." (2015).

Lindsey, Charles Vance. "The Experiences and Perceptions of Students Exposed to Popular Film as a Pedagogic Tool in Counselor Education : An Exploratory Study." 2005.

Lowry, Edward. *The Filmology Movement and Film Study in France*. Ann Arbor, Mich.: UMI Research Press, 1985.

Lunde, Erik S., and Douglas A. Noverr. *Film Studies*. New York: Wiener, 1989.

Mihalka, Gwendolyn C., Gerre M. Bolton, and Ca San Diego City Schools. *The Camera Lens: A Window into the [World]; Film Study and Film Making:Resource Suggestions for the English Class* 1971.

Muir, Peter J., and Donna Talbot. "From Script to Screen to Syllabus : The Path to Curriculum Design for Undergraduate Film Production Programs." (2013).

National Academy of Television Arts and, Sciences, and Review Princeton. *Television, Film, and Digital Media Programs : 556 Outstanding Programs at Top Colleges and Universities across the Nation*. New York: Random House, 2007.

Nelmes, Jill. *Introduction to Film Studies*. London: Routledge : [distributor] Taylor & Francis, c/o Bookpoint, 2007.

Petric, Vladimir. *Three Aspects of Teaching Cinema* 1974.

Pintoff, Ernest. *The Complete Guide to American Film Schools and Cinema and Television Courses*. New York, N.Y.: Penguin Books, 1994.

Polan, Dana B. "Scenes of Instruction the Beginnings of the U.S. Study of Film." (2007).

Quality Assurance Agency for Higher, Education. *Bolton Institute of Higher Education, Communication and Media Studies, Drama, Dance and Cinematics : Quality Assessment Report*. Gloucester: Quality Assurance Agency for Higher Education, 1998.

Resch, Kenneth E., and Vicki D. Schicker. *Using Film in the High School Curriculum : A Practical Guide for Teachers and Librarians*. Jefferson, N.C.: McFarland & Co., 1992.

Ritterbusch, Rachel S. *Practical Approaches to Teaching Film*. Newcastle, upon Tyne: Cambridge Scholars, 2009.

Roy, Paul, University Deakin, Arts Faculty of, Program Flexible Learning, Heritage and Society School of History, Films Iguana, and Films Ronin. *A Dying Shame a Film*. Geelong, Vic.: Deakin University, 2007.

Schillaci, Peter. *Contemporary Films' Mini Course on Film Study* 1973.

Scottish Film, Council, Service Scottish Curriculum Development, and Scotland Association for Media Education in. *Media Education Curriculum Guidelines*. Glasgow: The Council, 1988.

Sikov, Ed. "Film Studies an Introduction." (2010).

Society for Education in Film and, Television. "Screen Education." *Screen education*. (1974).

South, Australia, and Education Department of. *Film and Television : Curriculum Guidelines*. [Adelaide]: Education Dept. of South Australia, 1977.

Stewart, David C., College Dartmouth, and Education American Council on. *Film Study in Higher Education; Report of a Conference Sponsored by Dartmouth College in Association with the American Council on Education*. Washington: American Council on Education, 1966.

University of New South, Wales, and Film and Dance School of Theatre. "Undergraduate Handbook." *Undergraduate handbook* (2000).

Wartenberg, Thomas E., and Angela Curran. *The Philosophy of Film : Introductory Text and Readings*. Malden, Mass.: Blackwell Pub., 2005.

Watson, Robert. "Film and Television in Education an Aesthetic Approach to the Moving Image." (2003).