

Paradigm Shift from Classical to Immersive Cinema and Technology: The Impact on Teaching Pedagogy and Students' Learning Experiences in Higher Education

Ka Lok Sobel Chan, Yuk Tai Siu, Kwok-Wai Cheung

School of Communication, The Hang Seng University of Hong Kong, Hong Kong, China
Email: sobelchan@hsu.edu.hk, ytsiu@hsu.edu.hk, keithcheung@hsu.edu.hk

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Abstract

This research examines the transition from traditional film to immersive cinema in relation to how this shift reconstructs narrative structure and subsequently transforms the ways in which teachers teach and students study. Immersive cinema as an approach offers the opportunity to envision different educational practices by offering new storytelling methods that adjust traditional pedagogy. The research will take a primarily qualitative filmic textual analysis of significant immersive education examples alongside a reflexive literature review, with a focus on immersive films and digital environments using Mixed Reality (MR), Virtual Reality (VR) and Augmented Reality (AR) technologies. The discussion demonstrates exploratory case study analyses of immersive educational work that illustrates how immersive storytelling can be transformational in learning experiences, potentially affecting motivation and positively improving student academic performance through simulation of the learning scenario. The research illustrates that immersive cinema provides interactive participatory learning environments that narrow the gap between theory and practice and promote a deeper level of engagement and intimacy of communication between students and teachers. With the transformation associated with immersive cinema, the research identifies barriers to the effective use of immersive cinema in traditional classroom educational contexts, including technological limitations, high expense, and consequent staff training needs. Considering the findings of the research, recommendations are included to support teachers in using immersive technologies.

Keywords

Immersive Cinema, Traditional Cinema, Innovative Pedagogy, Interactive Learning Experiences

1. Introduction

At the time of Web 3.0, and immersive technology communication being ubiquitous, immersive technology is redefining learning spaces by creating innovative, new interactive experiences in different learning contexts beyond the physical borders of classrooms. There is something about immersive cinema with great potential for rebuilding the thinking around pedagogies of teaching and learning. It is important to clarify how immersive cinema differs from the broader XR category in the beginning. Immersive cinema is defined as cinema viewing experiences of higher sense of presence and engagement for the viewer, often achieved by expanding the sensory and spatial dimensions of the narrative beyond a traditional flat screen. It is different from the broader umbrella term Extended Reality (XR). XR is an overarching term encompassing all real-and-virtual mixed environments (from Virtual Reality, Augmented Reality, Mixed Reality). and XR encompasses a wide range of applications (gaming, training, communication, etc), immersive cinema focuses on creating new innovative filmic narratives. Thus, Immersive cinema incorporates elements of extended reality, mixed reality, virtual reality, augmented reality, and interactive digital media with narratives in dynamic spaces to provide multi-sensory, experiential learning. The technology captivates learners with visual experiences and interactive engagement. The potential learning gene exists for immersive cinema to foster creativity, critical thinking, empathy, and collaboration by rapidly placing learners in immersive story living narrative. Yet, despite its growing popularity in the field, and immersion education tools becoming widely available to educators, there is still a general underexploring of textual analytic research. As educators and researchers, we are embracing the challenge of the digital age to reestablish policies in our approach to curriculum, learning outcomes, and assessment. There is an urgent need to comprehend how immersive cinema would be incorporated systematically into learning spaces to support different learning outcomes and objectives.

Objectives of the Research

The main goal of this paper is to investigate the transformative impact of immersive cinema and technology on educational practices.

- 1) How do immersive storytelling methods transform teachers' instructional approaches and students' learning experiences?
- 2) In what ways does the integration of immersive cinema affect student involvement and enthusiasm in simulated learning environments?
- 3) What are the main obstacles and constraints linked to the incorporation of immersive cinema and technologies into standard teaching methods?
- 4) What strategies and recommendations can make the adoption and implementation of immersive cinema in education effective?

2. Literature Review and Theoretical Framework

2.1. Literature Review

The literature review will include literature, in the form of books, journal articles

and films (documentary and feature films), that focuses on traditional cinema in higher education and emergent immersive technologies. The literature review will provide theoretical gaps, context on the shift from classic to immersive cinema, and synthesize results that will be useful to hypothesize the study. Such that the synthesis of the literature provides a strong theoretical basis. There is a long-standing understanding that traditional cinema (especially documentary film and classic feature film) is an effective teaching tool to support higher education by reshaping abstract theoretical concepts into engaging stories, and rich film language. Scholars such as Nichols (2000) believed that films are useful tools to shape complex ideas into tangible experiences for learning, while Stam (2000) and Monaco (2009) explored how narratives and the representations of cinema affect our understanding of society, culture and humanity, and how we develop analytical skills by film criticism and interpretation. In practice, these theoretical perspectives can be seen throughout education, as in film studies and humanities curriculums when classic films, such as *Citizen Kane* (Welles, 1941) and *Casablanca* (Curtiz, 1942), are traditionally analyzed to showcase, the classical narratives, cinematography, symbolic meaning, and theme. *The Godfather* (Coppola, 1972) and *Rear Window* (Hitchcock, 1954) can demonstrate mafia world and voyeurism. Documentaries can propel these educational advantages in the connection between social issues and the knowledge realm. *The Thin Blue Line* (Morris, 1988) and *Bowling for Columbine* (Moore, 2002) are used in law and social sciences to critique justice and social issues, while films, such as *An Inconvenient Truth* (Guggenheim, 2006) and *Blackfish* (Cowperthwaite, 2013) can shape the discussions in environmental and ethical debates. Collectively, each of these examples not only advocates for the use of traditional cinema as an academic discourse, or in the case of documentary film, for critical and discussive trigger, that engage students to bring together theoretical propositions and reflection.

The immersive technologies develop real world experience in simulated spaces with limited distractions. Dede (2009) noted “that the potential for immersive interfaces to change educational experiences is significant because these immersive technologies allow for greater levels of interaction and engagement than was previously possible in more traditional learning environments” (p. 67) and provide revolutionary possibilities for new tools. Likewise, Slater and Wilbur (1997) observed that “the feeling of being there is an important function of the immersive environment, and it can fundamentally change users’ experiences by changing their sense of being in either the virtual or physical world” (p. 605), as a description of the immersive nature of these technologies. Radianti et al. (2020) discussed the many “immersive virtual reality applications in higher education have shown the capacity to challenge conventional pedagogies and enhance teaching by supporting experiential learning and motivation” (p. 110), which would suggest significant opportunities are visible with immersive applications in educational contexts. Additionally, Wu et al. (2013) suggested that “augmented reality in education provides a new opportunity to learn through the use of digital information overlaying the physical environment to enhance contextual understanding of learn-

ing and engagement with content” (p. 45), as an example of how AR can provide an enriching learning context. Lastly, Merchant et al. (2014) reported “the use of virtual reality-based education would improve learning performance, learning engagement and retention because these immersive and interactive experiences reflect constructivist approaches to education” (p. 32), which again demonstrates the constructivist advantages of immersing methodologies. Therefore, these observations indicate a strong and varied opportunity for immersive technologies to change education from a focus on engaging and interactive learning experiences to a transformation of learning experiences.

It is acceptable to argue that both traditional cinema and immersive cinema enhance teaching and learning and pedagogical practice, but they differ in how they do it. Traditional cinema uses classic films and documentaries to promote critical inquiry and visual literacy through the analysis of the narrative and thematic elements of a film (Nichols, 2000; Stam, 2000; Monaco, 2009). On the other hand, immersive cinema employs technologies such as virtual or augmented reality and/or mixed reality to develop interactive, multi-sensory learning experiences (Dede, 2009; Radianti et al., 2020; Wu et al., 2013; Merchant et al., 2014). Immersive cinema allows students, as participants and users at the same time, and enables the depth of engagement through active participation to improve retention, because the student is actively involved in the learning experience, and the immersive cinema provides a lifelike experience. The enhanced sense of “presence” creates a shift from the traditional passive act of watching a film, to an engaging and dynamic experiential learning journey.

2.2. Theoretical Framework

This study uses interconnected theoretical frameworks to articulate the impact immersive cinema has on education. Constructivist learning theory holds that learners actively and individually construct their own knowledge through their engagement with their immediate environments. This provides strong support for the notion that immersive technologies can create relatively “real” experiences of learning through enabling the students to learn in a more “active, hands-on” manner (Dede, 2009). Second, narrative theory provides a framework for explaining how storytelling forms can influence students’ learning outcomes. Cinema has historically been viewed as a medium for transcending the experience of abstract subject matter socially, culturally, and conceptually (Monaco, 2009; Nichols, 2000; Stam, 2000). Immersive cinema redefines the experience of storytelling through immersive narrative structures that are designed to both tell a story and to engage readers in those stories; thus, changing the level of comprehension or experience. Third, user experience (UX) theory is brought together to explain aspects of design and people’s interactions with immersive educational technologies—more specifically usability, emotional engagement and satisfaction, multi-sensory reaction as it relates to understanding and pursuit of learning objectives (Hassenzahl, 2010; Norman, 2004). As people actively interact with experiential immersive platforms—

adding a layer of understanding to the implications of using immersive technologies toward both cognitive learning outcomes and affective learning outcomes.

Finally, presence theory (Slater & Wilbur, 1997) adds to the previous perspectives by explaining a sense of “being there” that is achieved through fully immersive surrounds. When someone experiences a deeper sense of presence, it may result in deeper experience and engagement. This further shortens the gap between theoretical content and application or practice. All these frameworks address the premise in this study that immersive cinema not only transforms how narratives can be delivered but also delivers transformative educational experiences through interactive designs and reader engagement.

3. Research Methodology

Thorough qualitative design will be the best way to examine the complexities and multiplicities of issues involved in the integration of immersive cinema into higher education. This study will be approached as a multiple-case study examining cases of immersive cinema integration in multiple contexts and will ultimately provide a nuanced and contextualized examination of how immersive films are being produced and used to structure narrative conventions and pedagogy.

Simultaneously, a qualitative film form textual analysis of awarded case studies will be undertaken. The analysis explores the film narratives, cinematic practices and interactive design of the immersive experiences. The wider established practices of film analysis will be beneficial to systematically code and categories the themes that emerge in the study, related to user engagement, interactivity, and transformative learning.

Film form analysis describes a theoretical platform that examines the formal qualities of the film (i.e., cinematography, editing, sound, mise-en-scène, and narrative structure) to understand how these aspects create meaning and establish emotional connection. This is a methodological descript in ascribing aesthetic and structural properties of a film to unpack how modes of storytelling and visual composition work collectively in the filmic experience. For instance, Monaco (2009) articulates the complex way films communicate with us as a visual language. Bordwell and Thompson (2010) conceive practice as a more detailed, more rigorous, and analytical examination of the ancient practices and incongruity in way the fundamental formal elements are constructed to guide audience perception. Importantly, Stam’s (2000) emphasis on understanding film form to analyze the narrative and style relationship. As foundational texts, these authors introduce key considerations of film form analysis that will be important reference points for scholars exploring the transformation of narrative structure in traditional and immersive cinema.

As mentioned before, for ensuring methodological rigor and providing a comprehensive analysis of immersive cinema’s potential, this study employs a multiple-case study approach on four distinct yet complementary examples. The selection criteria were guided by diversity of immersive cinema applications, they encompass health and wellness education (Mind Space), Sensory and Embodied Ex-

perience (Notes on Blindness), Environmental Awareness and Education (The Greenland Melting) and Historical Empathy and Digital Heritage (The Anne Frank House VR Experience). Furthermore, all topics are globally concerned and widely recognized.

MindSpace (2021): The first of its kind in Hong Kong SAR and provides a range of informative and engaging activities for guests. The researcher fulfils the role of first-person experiential research visit within a designed environment. He would engage with VR simulations as a “participant-observer”. Therefore, a researcher visiting Mind Space will not only learn about the history of Hong Kong SAR mental health services and discover historic developments, interactive exhibits, animated displays, and simulated experiences of symptoms. After visiting and experiencing the mental disorder of the patients via virtual reality device, a researcher would also have a richer understanding and empathy of the mental illness of the patient. This knowledge and experience would become more likely to meet a person with a mental illness. That alone has the potential to further normalize mental illness as part of the common people’s interaction, human relationship and reduce the stigma surrounding it.

Notes on Blindness: Into Darkness produced by **Ex Nihilo (2016)** with this award-winning VR experience, the audience immerse deeply into John’s Hull’s world of blindness. ARTE suggests interrogation of “Notes on Blindness,” an interactive narrative taken from Hull’s audiovisual diary of 1983 when he became completely sightless. The experience blends poetic storytelling, original art direction and a rich visual landscape that also incorporates motion tracking, sound spatialization and interactive controllers. It is a landmark VR documentary (7 min, format as VR/360/AR) that offers an immersive experience of vision loss.

The Greenland Melting: (**NOVA, 2017**) takes viewers to the center of climate change in Greenland. By placing audiences in a quickly changing polar environment, this VR documentary strengthens the cognitive understanding of the melting of glaciers and the larger implications and protection of the environment while creating a visceral emotional connection. Users would learn the critical factor of sustainability of the environment and the harmony between human and nature.

The Anne Frank House VR Experience: by **Force Field Entertainment (2019)** recreates the historical space of the Secret Annex and allows an interactive and immersive experience of the life of Anne Frank in World War II. This experience not only gives students a deeper historical understanding of digital historical heritage but also creates an awareness of complex discussions about cultural memory and ethics. The users will learn the cruelty of the war and how anti-Jewish sentiment destroys humanity.

4. Findings and Discussion

4.1. Findings

The value of these case studies shows that immersive cinema and related immersive technologies can create a significant shift in educational practices by blurring

the spatial and temporal boundaries of the learning environment and changing the learner from a passive observer experience from a third person, into an active, immersive experience as a first person. Data collected from the case studies point to several significant outcomes.

From Third Person Point of View to First Person Experience: Immersive center in venues such as Mind Space—illustrate how immersive interactive environments can collapse into these traditional boundaries. By demonstrating historical exhibits, interactive displays and simulated experiences of mental health symptoms, Mind Space uses multi modal instances to allow visitors to have a real time experience and understand the complexities and awareness of the mental illness of the patients. Essentially, Mind Space makes the abstract or stigmatized more live and real. People can appreciate the importance and the value of mutual respect, empathy, support, and acceptance. This is not limited to public health and mental wellness education but extends to the virtual training for the real-world professions of social work, gerontology, and psychological consultation. Within these immersive experiences, the theoretical content of our trainings gets integrated in the minds of our students. And our trainers, students, and facilitators are always working together to create the consummate and sharing space of acceptance at the same time. This allows for the understanding that is both far-reaching and effective across several different learning contexts.

In Notes on Blindness: Into Darkness produced by *Ex Nihilo* (2016) changes the objective point of view narratives through John Hull's sensory and emotional experiences as he journeys into blindness from his first-person perspective. Using this viewpoint, Hull forces a reduction of psychical distance articulated by previously mentioned scholars. The combination of mode and embodiment allows students, to focus directly on complex narratives of themes demonstrated in this case study such as vision loss, mental health and disability studies. Through the experience of a first person, experiential learning rather than a detached observational mode, students perform a dual increase in cognition and emotional engagement. Both case studies also advance the narrative format and perspective. The pedagogical approach here extends beyond purely innovative media studies into care, value education, rehabilitation journey, and inclusive design, providing a powerful tool for developing empathy and heartfelt understanding of diverse and underprivileged human experiences.

Enhanced engagement with real-world issues is a major strength of immersive VR experiences such as The Greenland Melting. This case study provides enhanced engagement because it transports learners into remote, rapidly changing environments, and dynamically illustrates the real-life impacts of climate change. In this immersive experience, the students are placed virtually into a polar environment where they can see glacier retreat, changing ice formations, and extreme weather events. The audio-visual elements establish a realism that collapses geographical and chronological distance, enabling learners to virtually experience decades of environmental change, all in a single, much compressed session. When

experiencing this phenomenon at the first time, students gain an intimate and personal understanding of abstract environmental ideas. The immersive simulation can incorporate rich, sensory feedback through spatialized sound and high-fidelity visual and auditory elements that evoke emotional responses. By increasing learner's sense of "presence", they are more likely to critically reflect and consider the urgency and magnitude of climate change, which is something that cannot be done using traditional classroom. Additionally, while in a Virtual Reality experience, the interactive elements allow students to directly engage with the content. They can manipulate components, see immediate effects, and engage in scenario-based problem solving, as well as regular inquiry. The active manipulation of digital environmental simulations supports students to engage much more fully with experiential learning: active instruction not only reinforces learning retention but also facilitates better conversations around the causes, impacts and possible solutions to environmental problems. In short, The Greenland Melting does not only serve as a means for awareness, but it also provides a deeper sense of empathy and solution towards the subjects at hand, allows students to be able to observe and analyze real-world issues in a critically way. This model can be transferable to various scientific disciplines and global crisis studies, from geography and environmental science to urban planning, development, disaster prediction and management, offering a unique model and mechanism for situated learning and fostering critical thinking and solutions about everchanging complicated, global challenges.

Bridging Abstraction of History to Experience: The Anne Frank House VR Experience changes how students learn about history for good. This is done by experiencing history, rather than providing a historical reading, which makes for a more immersive reality than simply reading a text or seeing static images (black and white photo, illustration, power point) that typically leave the emotional and human aspects of historical events largely abstract. The VR experience takes students into the Secret Annex to create a first-person opportunity to understand the small area where Anne Frank and her family lived in hiding. As students move through the closely rendered space with its actual size, sounds and interactive digital museum objects, they gain a better sense of what it was like to live under such conditions, the individual's struggle and bereavement, and moments of hope, while being persecuted. This first-person experiential opportunity connected them better to abstract historical event and allows for a better understanding of cruelty of war and moral complexities. With the lens of observing the past, students are in position to critically think about the persistence of human beings in Holocaust. This creates a space for empathy and cultural sensitivity to develop through what historical truth is about, while providing an experience and emotional response to history that more directly connects the students with the many facets and different angles of a given history. The popularity of this experience for tourists from the world indicates broad applicability in humanities and social sciences education, including the anti-war consciousness of historical warfare, phil-

osophical and ethical reflection, civil, and cultural studies. It strongly demonstrates the capability of immersive cinema to transform historical or cultural issues into impactful, personal experiences, thereby enhancing in-depth understanding and critical historical literacy across diverse educational settings, from year 11 to university level, and public outreach.

4.2. Discussion

Resonating with Literature Review: classical cinema presented as linear storytelling and passive consumption of the content, is organized by the director's personal approaches to managing aspects of narrative construction and framing, and learner is manipulated by attributes such as montage (Eisenstein, 1969) and realism (Bazin, 2004), to produce a pre-determined emotional outcome. The audience is aware of the experience, but the viewer does not have right to direct the narrative flow or direct the gaze. The viewer observes the story created and manipulated by the filmmaker.

Immersive cinema opportunities exist as an active participant in the creative process, with a sense of agency and spatial freedom that fundamentally changes the way audiences engage. It allows the audience to determine the exploring of 360-degree experiences, in relation to an immersive VR environment (movement of their body and angle of their eyes). This experience not only aligns with Mel Slater's (2009) understanding of place illusion and plausibility illusion as they both explain how VR, in particular, frames immediacy of "being there" and the view believes the incidents on screen are real. Agency for the viewer is now part of the experience leading not only to a genuine engagement with content, but emotional involvement as well.

In traditional cinema, for instance, the director has much control over the space of the narrative and determines a fixed linear structure for the narrative. Immersive cinema changes known narrative structures; with immersive cinema, the chosen narrative structure is open to non-linear possibilities that allow the viewer to actively decide how the story develops. VR technologies also open themselves well to branching narratives, allowing users to choose their plot paths and engage in decision-making that altered the course of the story. In this new type of storytelling, there are new production techniques that keep narrative coherence intact but relinquish control by allowing the user to access non-linear story paths without stemming their visual foothold or gaze. Virtual Reality allows users to decide where they want to look and how to engage with the world they are presented with, resulting a personalized, multi-version story that makes interactive, participatory viewing possible. If we consider Murray's (1998) notion of multi-form narrative that incorporates multi-path stories and interactivity, we can begin to think about how the immersive through immersive cinema allows the user to control aspects of the multi-version progression and termination of the story themselves; and have the user's immersion intertwined into their virtual experience.

In immersive technologies, the concept of place and presence is an important

component of viewer experience. Lombard and Ditton (1997) explain presence as “the perceptual illusion of non-mediation,” and refers to the physical and emotional experience of the user. Virtual reality enhances the illusion of presence by creating an experience that is more realistic, and where the boundaries between the real and virtual can be blurred. Janet Murray’s (1998) theory of “spatial immersion” helps us understand how VR creates immersive spaces to explore narratives.

These findings are consistent with and build on earlier findings surrounding immersive learning. Both Dede (2009) and Merchant et al. (2014) have shown that immersive interfaces and VR-based instruction significantly improve engagement and retention by allowing students the opportunity to engage in experiential learning. This study builds on the work of Slater and Wilbur (1997), who found that a heightened sense of presence enhances the overall learning experience—to confirm that immersive cinema does even more than just boost engagement. It also alters the very structure of the narrative. Unlike traditional cinema, which predominantly conveys content in a third-person, passive format (Nichols, 2000; Stam, 2000; Monaco, 2009), immersive cinema uses interactive elements that allow learners to the experiential, first-person learning journey.

Immersive cinema does not just enhance subject matter understanding, it cultivates students’ creativity, critical thinking, empathy, and ethical thinking, while also possibly pulling together the gap between abstract theoretical ideas, and evidence-based practice. The first-person immersive aspect of the technology, in this case VR, leads to a deeper more situated and embodied learning experience where students effectively engage in complex issues such as those on environmental change and historical incidents, that are not matched by traditional media in terms of engagement or impact. This change in the educational paradigm could potentially alter teachers’ approach to curriculum development and pedagogical practice in multiple disciplines further embracing an experiential and inclusive educational framework.

However, immersive technologies, despite their transformative potential, also present limitations and challenges that must be addressed to increase their effective utilization in education. The obvious physical barriers were most people’s concern, such as eye strain and motion sickness due to prolonged use (usually more than 15 mins), and the expensive costs of immersive devices and facilities. To fully maximize the educational potential of immersive technologies, this research proposes a multi-faceted approach to implementation, prioritizing accessibility and digital equity.

First, Addressing Physiological Discomfort and Ensuring Physical Accessibility: Universities should develop acclimatization programs that reduce physiological discomfort based on evidence-based ergonomic factors. This includes introducing time-limited screening session for initial exposure and providing clear guidelines for device fitting and usage breaks. Crucially, institutions must also consider the physical accessibility of hardware for students with economic needs, advocating for inclusive design from manufacturers and providing actionable solutions where possible. This ensures that discomfort or physical limitations do not create

new barriers to learning.

Second, Strategic Curriculum Integration and Pedagogical Expertise: Curriculum planners should ensure that they not only create modules for application but also do so in a way that is aligned with a particular discipline. Operationalizing immersive learning technologies with clear learning objectives, class activities and assessment tailored to those fields. Planners should understand their devices well enough to know how to integrate them thoughtfully for enhancing learning outcomes that traditional methods cannot achieve specifically, for example, situational problem-solving in engineering. This thoughtful integration really establishes this educational device as integral, effective learning instruments.

Third, Overcoming Financial Barriers and Fostering Digital Equity: The senior management teams in schools should take proactive steps to ensure that student populations can access the necessary technologies for learning. They should seek out all available means and partnerships to fund and furnish the required technology. Besides seeking direct financial support from governments, universities should look to private industry for partnerships that can yield direct funding and technological resources. They should also share their technological riches not just across departments but across institutions. To directly combat digital inequity, universities should also explore open-source immersive content development tools and cloud-based VR solutions, which reduce the need for expensive local hardware and make experiences more accessible to a wider student community.

Fourth, Faculty Innovative Technology Training: These programs need to ensure a fundamental level of pedagogical competency tied to the immersive technologies updated, across the different contexts of media education. This isn't just about training people to be "media education trainers"; it's also about training people to be "media education reformers." Staff trained with new technological capability are confident and capable to leverage these tools effectively for diverse students. Finally, Establishing Effective Communication Channels for Continuous Improvement and Feedback. It is necessary to establish regular and ongoing communication routes and processes for the immersive technology assignment design to function. By working with the students who are using the immersive technologies, we can obtain what is meant to be the unobtainable: feedback on what is working for the students well and what isn't. As a result, the implementation of immersive technologies contributes to a truly equitable digital learning environment.

5. Conclusion

The analysis concluded that immersive cinema is capable and has a significant potential to enhance educational practices if educators develop solid plans to refine the cost, technology, and physiology complexity. This research provides a strong example of how overwhelmingly supportive students are in terms of how immersive technologies capture their attention as educational tools, as learners consistently articulated that they are tools through the level of engagement, deeper understanding, and development of relevant career skills. To put the research hy-

pothesis to a further test, the survey responses were taken and examined to provide some statistical backing to the qualitative insights and conclusions. 35 undergraduate students were invited to participate in the survey, in which they were asked to express their satisfaction with immersive technologies and the integration of VR cinema in media and communication courses. The survey was answered in whole by the 35 students on a voluntarily basis. Among the 35 responses total: 1 (2.86%) strongly disagreed (option 1); no percent of participants, disagreed with the claim made in the survey (option 2); 11 (31.43%) were neutral (option 3); 12 (34.29%) were agreed (options 4); 11 (31.43%) were strongly agreed (option 5). Thus, there were very few (if any) complaints about satisfaction. A combined total of 65.72% of the participants either “Agree” or “Strongly Agree” that they are satisfied with the use of immersive technology and VR cinema. This survey result overall suggests that most students prefer to support the inclusion of immersive and VR components in the curriculum. Moreover, students also provided the research team with three frameworks of recommendations: 1) developed their technical skills in the areas such as 360° film-making or interactive storytelling, 2) developed a connection to the course work through embodied experiences demonstrating greater emotional connection, and 3) better prepared to work in industry from realistic expectations and best people.

In sum, to recap future implementation efforts should take this clear and enthusiastic student engagement into considerations by: 1) improving student access to immersive technologies via college/university-level sharing programs, 2) better defining timeframes on optimal health and comfort in using immersive technologies, and 3) providing more opportunities for interdisciplinary immersive learning experiences that students have shown preference for in their applied, experiential teaching style. Research shows that students’ demand will fuel future use of these technologies, and that students will advocate for more immersive curriculum when they move on to industry positions. Finally, future studies should look for the use of emerging technologies that might converge, such as potential future usage of AI-driven interactive experiences and/or emerging applications, with the potential for even more personalized learning experiences, and increased pedagogical impact on immersive cinematic learning experience.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Bazin, A. (2004). *What Is Cinema? Vol. 1*. University of California Press.
- Bordwell, D., & Thompson, K. (2010). *Film Art: An Introduction* (10th ed.). McGraw-Hill.
- Coppola, F. F. (1972). *The Godfather*. Paramount Pictures.
- Cowperthwaite, G. (2013). *Blackfish*. Magnolia Pictures.
- Curtiz, M. (1942). *Casablanca*. Warner Bros.
- Dede, C. (2009). Immersive Interfaces for Engagement and Learning. *Science*, 323, 66-69.

<https://doi.org/10.1126/science.1167311>

- Eisenstein, S. (1969). *The Film Sense*. Harcourt Brace Jovanovich.
- Ex Nihilo (2016). *Notes on Blindness: Into Darkness*.
<https://www.arte.tv/sites/webproductions/en/notes-on-blindness/>
- Force Field Entertainment (2019). *The Anne Frank House VR [Educational VR Experience]*. https://www.youtube.com/watch?v=QdjyGt_NyWI
- Guggenheim, D. (2006). *An Inconvenient Truth [Documentary Film]*. Paramount Classics.
- Hassenzahl, M. (2010). *Experience Design: Technology for All the Right Reasons*. Morgan & Claypool. <https://doi.org/10.1007/978-3-031-02191-6>
- Hitchcock, A. (1954). *Rear Window*. Paramount Pictures.
- Lombard, M., & Ditton, T. (1997). At the Heart of It All: The Concept of Presence. *Journal of Computer-Mediated Communication*, 3, JCMC321.
<https://doi.org/10.1111/j.1083-6101.1997.tb00072.x>
- Merchant, Z., Goetz, E. T., Cifuentes, L., Keeney-Kennicutt, W., & Davis, T. J. (2014). Effectiveness of Virtual Reality-Based Instruction on Students' Learning Outcomes in K-12 and Higher Education: A Meta-Analysis. *Computers & Education*, 70, 29-40.
<https://doi.org/10.1016/j.compedu.2013.07.033>
- MindSpace (2021). *Immersive Technology Visit*. <https://mindspace.org.hk/en/index.html>
- Monaco, J. (2009). *How to Read a Film: Movies, Media, and Beyond* (4th ed.). Oxford University Press.
- Moore, M. (2002). *Bowling for Columbine*. Dog Eat Dog Films.
- Morris, E. (1988). *The Thin Blue Line*. HBO Films.
- Murray, J. (1998). *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. MIT Press.
- Nichols, B. (2000). *Representing Reality: Issues and Concepts in Documentary*. Indiana University Press.
- Norman, D. A. (2004). *Emotional Design: Why We Love (or Hate) Everyday Things*. Basic Books.
- NOVA, Frontline & Emblematic Group (2017). *The Greenland Melting [VR Documentary]*. <https://www.youtube.com/watch?v=hUWqQ9F3sIk>
- Radianti, J., Majchrzak, T. A., Fromm, J., & Wohlgenannt, I. (2020). A Systematic Review of Immersive Virtual Reality Applications for Higher Education: Design Elements, Lessons Learned, and Research Agenda. *Computers & Education*, 147, Article ID: 103778.
<https://doi.org/10.1016/j.compedu.2019.103778>
- Slater, M. (2009). Place Illusion and Plausibility Can Lead to Realistic Behaviour in Immersive Virtual Environments. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364, 3549-3557. <https://doi.org/10.1098/rstb.2009.0138>
- Slater, M., & Wilbur, S. (1997). A Framework for Immersive Virtual Environments (FIVE): Speculations on the Role of Presence in Virtual Environments. *Presence: Teleoperators and Virtual Environments*, 6, 603-616. <https://doi.org/10.1162/pres.1997.6.6.603>
- Stam, R. (2000). *Film Theory: An Introduction*. Blackwell Publishers.
- Welles, O. (1941). *Citizen Kane*. RKO Radio Pictures.
- Wu, H., Lee, S. W., Chang, H., & Liang, J. (2013). Current Status, Opportunities and Challenges of Augmented Reality in Education. *Computers & Education*, 62, 41-49.
<https://doi.org/10.1016/j.compedu.2012.10.024>