

**The Unfinished Business of Marty Melnick:
Interactive Film's Educational Potential in Children's Media**

Submitted by: Olivia Cunnally

Abstract

I am researching interactive film in order to create an interactive children's TV pilot that centers mature morals and LGBTQ representation. Through this research and finished product, I aim to convey how interactive film can better teach nuanced themes to youth audiences in order to expand the potential of this medium and teach myself valuable professional skills in the process. The outcome of this research will be a 10-minute film for children ages 10-16, entitled *The Unfinished Business of Marty Melnick*, that uses point-and-click interaction to dictate the characters that the narrative focuses on. Despite interactive film's extensive history, this field lacks genre diversity and does not fulfill its educational potential for youth audiences. Therefore, this research project will hopefully act as a prototype for future researchers by demonstrating the potential of this genre as a powerful tool for emotional-intelligence based education. Researching and executing the process of creating meaningful interactive film will ideally provide a template for teaching nuanced themes in children's media.

Objectives and Contribution of the Research

By researching interactive film and creating a 10-minute, interactive TV pilot for children ages 10-16 that highlights challenging themes and LGBTQ representation, I intend to demonstrate the nuanced educational potential of this medium while honing my professional skillset in the process. Interactive film has the potential to provide thoughtful lessons for viewers by facilitating powerful connections between the narrative and its audience; however, this moral aspect of the medium has historically been overlooked by projects that instead value technological novelty and shock value. To display this potential, this project aims to use point-and-click interaction to shift character focus instead of narrative plot in order to engage the audience as an active participant and enrich their connection to the characters and themes. By addressing the gaps in this under-researched field, interactive film could serve as a powerful tool in promoting empathy-driven media, decentralized narratives, and emotional-intelligence messages for youth audiences. **Therefore, the objective of this research is to create an interactive film in order to hopefully demonstrate the educational potential of this medium for youth audiences.**

Considering the lack of interactive films occupying this specific niche, there are a variety of creative influences for specific elements of this project¹. Full Motion Videos (FMVs) primarily from the 1990s and Netflix's recent canon of point-and-click interactive films, such as *Black Mirror's Bandersnatch*, are typically the most accessible example of the interactive film style I intend to make. However, the media in Netflix's canon more aligned with this project are their interactive children's TV shows such as *Carmen Sandiego*, *The Last Kids on Earth*, and *Buddy Thunderstruck*². The educational aspect of this project specifically is inspired by 1990s point-and-click CD-ROM games such as *Freddi Fish* and *Putt-Putt*. Other fields of media are similarly inspirational such as Choose Your Own Adventure novels, like *Give Yourself Goosebumps*, or indie, character-based video games, like *Night in the Woods*. Disjoint from the

¹ Kirke, Alexis, "Films That Watch You While You Watch Them: A Brief History of Interactive Movies," Medium, Startup It Up, April 24, 2020.

<https://medium.com/swlh/films-that-watch-you-while-you-watch-them-a-brief-history-of-interactive-movies-820fb5e2ee25>.

² Gladstone, Darren, "Netflix Interactive Movies Let You Control the Adventure," *SuperParent*, March 12, 2020. <https://superparent.com/article/1129/netflix-interactive-movies-let-you-control-the-adventure>.

interactive element, the narrative nuanced themes of this project are shaped by the empathetic shifting of character perspectives in TV shows such as *Ramy* and *Freaks and Geeks*. Furthermore, creators who have thoughtfully approached sensitive themes and LGBTQ representation in children's media such as Noelle Stevenson, Owen Dennis, and Dana Terrace are all huge inspirations to this project.

The history of this medium that inspired these recent iterations of interactive film dates back to the 1980s; however, this underdeveloped field significantly lacks genre diversity and critical analysis. Historically dominated by the horror, thriller, and mystery genre, interactive films often place the novelty of their technology above the development of its narrative which is a serious gap in the existing body of work³. Children's media is one genre that is not only underutilized by interactive film but could significantly benefit from interactive implementation that emphasizes its emotional contribution over its novelty in order to support nuanced themes. Studies have been conducted which show that incorporating experimental technology and interactive teaching methods among children can lead to improved retainment of knowledge⁴. Creating this interactive film provides a novel contribution to this field as it would ideally offer a framework for how thoughtful EQ-based morals and LGBTQ representation can be implemented in interactive children's media in the future. Though media related to my proposed project exists, this project will tackle the areas in which they are often lacking by not prioritizing novelty and instead emphasizing interactivity to approach challenging themes and foster empathy.

Methodology

The techniques to be used in this project can be segmented into four stages: research, pre-production, production, and post-production. Since I have been researching interactive film since March of 2021, research will consist of the continued reading of interactive film analysis, children's psychology, playtesting similar projects, and outreaching to professionals at CMU Children's School and Emerging Platforms at GBH. Pre-production techniques, based on my prior internship experiences, will consist of writing, scheduling, budgeting, talent outreach, and contracting. Production will consist of enacting test shoots, prototyping visual effects and interactivity, and then filming. Post-production will consist of video editing in Adobe Premiere, creating visual effects in Meshlab and Adobe After Effects, and implementing interactive elements with EKO, an open-source application to make web-hosted, interactive videos. By uploading video files and using HTML5 coding in EKO, the audience will be able to click the on-screen options in order to influence the perspective in which the narrative is told.

The finished product of this research will take the form of a 10-minute interactive film, specifically a live-action, comedy-adventure children's TV pilot. The context motivating this project is both the lack of nuanced interactive films for children's education and the recent increased presence of mature themes and LGBTQ representation in youth media. By understanding this context's shortcomings and strengths, the expected outcome from this project is to offer a well-researched example on how interactive film can be used to teach children

³ Yarwood, Jack, "Return of the Full Motion Video Game," *Variety*, May 7, 2018. <https://variety.com/2018/gaming/features/full-motion-video-games-return-1202800967/>.

⁴ Arcos, Claudia, et al, "Playful and Interactive Environment-Based Augmented Reality to Stimulate Learning of Children," *2016 18th Mediterranean Electrotechnical Conference (MELECON)*, June 23, 2016. <https://ieeexplore.ieee.org/abstract/document/7495421>.

EQ-driven themes by bolstering one's investment and connection to characters in a narrative⁵. Playtesting the project with different audiences will not be directly tackled in this research, but this project lays the groundwork for others to survey those results in future continued research.

My timeline follows the deliverables in the previously outlined stages: November 15th concludes research and pre-production work; December 1st concludes the end of the production test shoots; December 20th will mark the completion of a two-minute, non-interactive prototype; February 15th concludes the on-set production filming for the final project; April 15th concludes the post-production stage; May 1st concludes playtesting and marks the completion of the film. As the deadline for on-set production approaches, funding for equipment and props is crucial.

Background

My faculty mentors for this project are Sharon Dilworth and Nica Ross. Dilworth was my Screenwriting professor and will be advising the project's writing aspect, ensuring that the script is cohesive, sensitive, and comprehensible. Ross was my Experimental Capture professor and will be advising the project's pre-production, on-set logistics, and interactive implementation. I received support for a different project from a \$500 BXA Undergraduate grant in Spring of 2021 to aid in purchasing audio equipment. Though I am not working equally with any co-collaborators, this project enlists the help of sixteen individuals involved in varying degrees: Scott King, programmer, visual effects, and music advisor; three on-set crew members; three alumni aides helping with programming, visual effects, and writing; and nine total student actors. For the student actors, there are three main characters, three main supporting characters, and three minor voice acting roles.

Feedback and Evaluation

My mentors, Ross and Dilworth, will be providing feedback in areas pertinent to their expertise and the current stage of production. Specifically, Nica will be evaluating my project based on my produciorial execution, professionalism, and my thoughtful application of interactivity. Sharon will be providing feedback on the formal narrative qualities, comprehensibility of the plot, and effectiveness of the interactivity thematically. Half hour meetings with my advisors will occur weekly. For the final stages of the project in April, I plan to playtest the film with various participants to gain additional feedback. This project will also serve as my BXA Senior Capstone, so my BXA academic advisors will also be providing feedback throughout the year. I am not working with graduate students, but I am working closely with several Carnegie Mellon alumni.

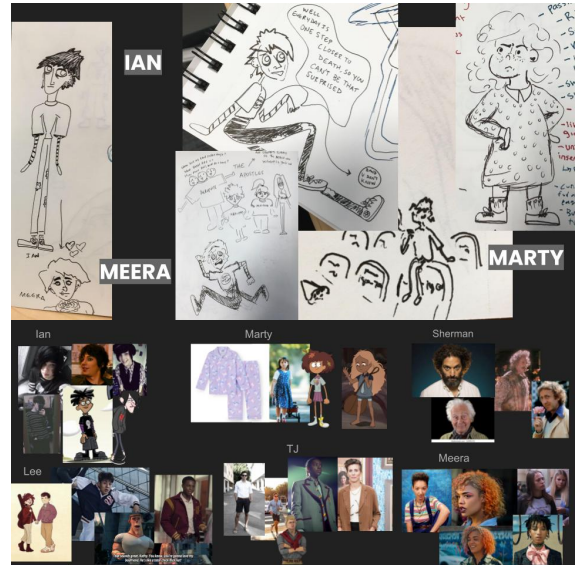
Dissemination of Knowledge

This project will be completed by May 1st. In addition to presenting at Meeting of the Minds, I plan to have an interactive screening of the finished film in either CFA or in CMU's Studio Theatre. Presenting this work would entail booking the rooms, connecting the film to a projector screen, and having me operate the computer dependent on decisions made collectively by the audience. I also plan to submit this film to at least one film festival after May of 2022. The primary festivals I aspire to submit to are FilmGate Interactive Festival, the Three Rivers Film Festival, and the ReelQ film festival.

⁵ "Technology and Interactive Media as Tools in Early Childhood Programs Serving Children from Birth through Age 8," *National Association for the Education of Young Children*, January 2012.
https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/position-statements/ps_technology.pdf.

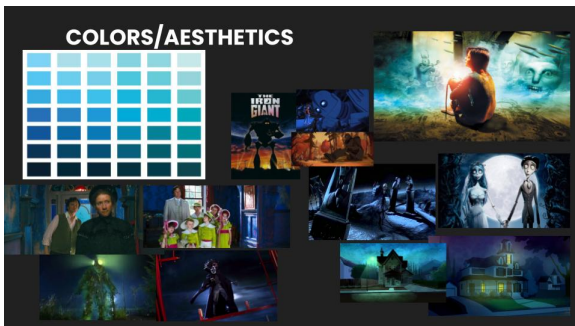
Supporting Materials

Current Materials for Proposed Project: *The Unfinished Business of Marty Melnick*



Rough Storyboard Excerpt (Scene 6B, 7A, & 8)

Sketches & Casting Concept Board



Aesthetics Concept Board



Location Scouting

CAST	ROLE	FIRST NAME	LAST NAME	DOB/AGE	RESPONSIBILITIES	PWT/PURSU	POSSIBLY INTERESTED PEOPLE	CONTACT INFO	
	Ian	TBD				\$100			
	Marty	TBD				100			
	Bernard	TBD				100			
	Lee	TBD				100			
	TJ	TBD				100			
	Meera	TBD				100			
	MEN'S VOICES, VOICE OVER ONLY								
	Man 1	TBD				50			
	Man 2	TBD				50			
	Man 3	TBD				50			
	PEOPLE WHO HAVE EXPRESSED GENERAL INTEREST IN HELPING								
		Emily	Chenover						
		Madison	Simon		Video work only				
		Garth	Grigg	TJ Lee					
		Paragim	Sharanath	TJ Lee, Ian, Meera					
		Walker	Sharanath	Bernard Lee					
		David	Grigg		Video work only				
	PEOPLE TO REACH OUT TO								
		CJ	Peavola	TJ					
		Jack	Gravitt	Meera, Lee					
		Jack	Cherry	TJ					
		Heena	Gravitt	TJ Lee					
		Andy	Lafont	TJ Lee					
		Stephan	Phelan	Marty					
		Jack	Schmitt	Meera, TJ, Man					
		Carroll	Diabasa	Man					
		Tessa	Mey	Meera, Marty					
		Isaacson	Carroll						
		Philoche	Li-Yi						
		Oliver	Phelan	Meera, Marty, Man, TJ					
		Geoffrey	Augustin	Marty					
		Alan	Sharanath	Marty					
		Stephen	Tim	TJ Lee					
	TOTAL:						500 (all) (most of people) \$1000 (most)		

Casting Sheet

CREW	ROLE	FIRST NAME	LAST NAME	RESPONSIBILITIES	OTHER NEEDS	DOB	POSSIBLY INTERESTED PEOPLE	CONTACT INFO	
	Producer (executive Area Director)	Olivia	Cunnally					\$100.00	
	Assistant Director							\$100.00	
	Character Animator - Camera 1 Operator							\$100.00	
	Character Animator							\$100.00	
	Character Animator							\$100.00	
	Music Researcher 1							\$100.00	
	Music Researcher 2							\$100.00	
	Music DJ			Sound (Music) for Bernard & Marty, with Emily, Ian, Meera's fun				\$100.00	
	Jan			Janet, 100 (Jan)				\$100.00	
	Color							\$100.00	
	CGI Animator							\$100.00	
	Composer							\$100.00	
	Book (Music) Music to Sound							\$100.00	
	TOTAL PER:						\$1000 (most of people) \$1000 (most)		
	PEOPLE WHO HAVE EXPRESSED GENERAL INTEREST IN HELPING								
		Alan	Tim	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Paragim	Sharanath	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Oliver	Phelan	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Carroll	Diabasa	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Stephan	Phelan	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Jack	Gravitt	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Jack	Cherry	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Heena	Gravitt	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Andy	Lafont	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Stephan	Phelan	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Jack	Schmitt	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Carroll	Diabasa	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Tessa	Mey	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Isaacson	Carroll	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Philoche	Li-Yi	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Oliver	Phelan	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Geoffrey	Augustin	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Alan	Sharanath	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Stephen	Tim	Alan, 100 (Jan), 100 (Jan)				\$100.00	
	TOTAL PER:						\$1000 (most of people) \$1000 (most)		
	PEOPLE TO REACH OUT TO								
		Madison	Simon	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Carroll	Diabasa	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Stephan	Phelan	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Jack	Gravitt	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Jack	Cherry	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Heena	Gravitt	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Andy	Lafont	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Stephan	Phelan	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Jack	Schmitt	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Carroll	Diabasa	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Tessa	Mey	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Isaacson	Carroll	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Philoche	Li-Yi	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Oliver	Phelan	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Geoffrey	Augustin	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Alan	Sharanath	Alan, 100 (Jan), 100 (Jan)				\$100.00	
		Stephen	Tim	Alan, 100 (Jan), 100 (Jan)				\$100.00	

Crew Sheet

6B EXT. GRAVEYARD ENTRANCE - SAME

TJ, Lee, and Meera stand at the entrance wearing all black. Meera is holding a device that is a cross between a large funnel, the discount bin at a Radio Shack, and a Nerf gun.

Meera has the device pointed at TJ. TJ leaps back in pain into Lee's embrace.

TJ
(Angrily Yelling)
Ouch! Hey, you shocked me!

MEERA
Sorry, this model's still hard to control. GhostBeGone 3001's got kick.

TJ
(Angrily Yelling)
Then watch where you point that thing!

TJ seethes in Lee's arms. Lee leans his head down and lightly kisses TJ's forehead. TJ glances up.

TJ
(Still Angrily Yelling)
Thank you!

MEERA
Listen lovebirds, we all got to be on high alert. Tonight's the night we finally catch a ghost.

Meera spins the GhostBeGone 3001 and blows off pretend steam. TJ and Lee duck and cover. Meera does not notice.

MEERA
I know I've struck out with my last 37 prototypes, but I have a good feeling about this one.

TJ steps forward and points a finger in Meera's face.

TJ
You better! That thing cost me 4 weeks of bullying... and one day's allowance.

Meera loads the GhostBeGone 3001. The device gains the same blue glow that surrounds Marty.

Excerpt from Current [13 Page Script](#) (Scene 6B)

My Prior Relevant Creative Work

(All Work Hosted on My Website Portfolio <https://www.oliviacunnally.com/>)



Storytime Shadows

(Interactive Storytelling Shadow Puppet Game)



Options and Choices

(Interactive Educational Simulator)



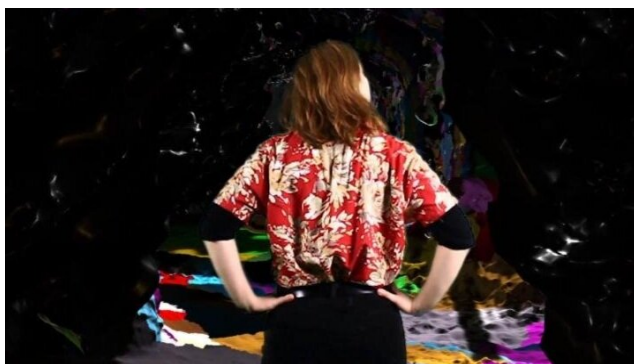
Wallace Again

(6-minute narrative short film)



Theatre of Violence

(10-minute documentary short film)



losing my mind in a hawaiian shirt

(Photogrammetry Visual Effects Music Video)



There Are Many Willows

(Animated LGBTQ Children's Tale)

Preliminary Research

the immersion of the audience³. Therefore, this analysis will consider any involvement, conscious or unconscious, as interactive. Another aspect of these definitions is that, despite the surprisingly extensive history these mediums have, especially when considering the deep roots in Choose Your Own Adventure novels and roleplaying games, the term FMV typically has a heavy association with works that arose in the 90s as opposed to interactive film which is a term commonly aligned with the medium's recent resurgence.

Now that those terms are established, it is equally important to challenge them.

Categorizing this multifaceted and complicated art form into the already established mediums of video games and films can be detrimental to one's understanding and experience of the hybrid medium of interactive film and FMVs. Therefore, for the purposes of this paper and challenging this notion of limitation, interactive film and FMV will be used interchangeably. Moreover, the hybridity that interactive film embodies is significantly important when understanding the medium's potential. Due to FMVs' historical path such as its surge in the 1990s, interactive film remains largely underdeveloped, unrespected, and limited to specific genres and contexts. But if these limitations are understood and analyzed, the form can have a meaningful impact on the future of viewing experiences, especially when critically made for certain audiences such as children. Therefore, it is crucial to undergo this analysis now, as there is an emerging recurrence of interactive film due to developments in online platforms. Overall, interactive film's history reveals that society's generally narrow-minded perspective on this form in terms of genre effectiveness, categorization, and aesthetic execution has limited its growth; however, interactive

engaging them in the content. Therefore, proper analysis and utilization of this medium could serve to increase attention, accountability, engagement, excitement, and provide general benefits during children's screen time with digital entertainment.

Overall, the medium of interactive film and FMVs is one full of nuance and complicated grey area but also of potential. Despite FMVs peculiar timeline throughout the decades, by intentionally analyzing and learning from past mistakes, the future of interactive film can be both expansive and important. Particularly, if it is understood that interactive film is an art form that needs to be respected disjointly from the confines of similar art fields such as film and video

¹³ Arcos, Claudia, et al, "Playful and Interactive Environment-Based Augmented Reality to Stimulate Learning of Children," 2016 18th Mediterranean Electrotechnical Conference (MELECON), June 23, 2016. <https://ieeexplore.ieee.org/abstract/document/7495421>.

Olivia Cunnally
4/12/2021
Critical Essay BXA Seminar

games, the potential for growth and acceptance is significant. With this reframing of interactive film, it is possible to explore its implementation within underdeveloped genres such as in children's media which could prove to be particularly meaningful. In the words of Alexis Kirke, creator of the interactive film *Many Worlds*, "we will never develop a way of discussing our answers unless we accept that interactive cinema is neither this nor that."¹⁹ Therefore, in order to grow the future of this medium, it is vital to learn from its past, accept the unique qualities of the medium at present, and push its exploration in genre and implementation for the future.

³ Kirke, Alexis, "Films That Watch You While You Watch Them: A Brief History of Interactive Movies," Medium, Startup It Up, April 24, 2020.

Excerpts from 13-page Interactive Film Research Paper I Wrote in Spring 2021

- 4/9/2021
Critical Essay
- o Detroit: Become Human
 - o The Quiet Man (video game)
 - o Telling Lies
 - o Steins; Gate Elite (interactive anime remake)
 - o Take This Lollipop
 - o Darkstar: The Interactive Movie (not supposed to be a comedy)
 - o Wing commander III (not supposed to be a comedy)
 - o Return to House on Haunted Hill
 - o The Act (animated 2D)
 - o Love Story 0 Story (Japanese Video Game) -- I LOVE this so much
 - Also *Alive* by the same company
 - o Toonstruck **THIS IS FUCKING AMAZING**
 - a non-linear structure
 - **STARTED FOR KIDS BUT THEN AIMED AT ADULTS**
 - It has since been recognized as one of the best adventure games of all time, and has recently been re-released for modern computers by GOG.com and Steam.
 - o Ripper - Video Game
 - o Hier Story
 - o The Complex
 - o A way out
 - o Until dawn
 - o Man of Medan
 - o The Wolf Among Us
 - o Headspun
 - o WARGAMES
 - o Tex Murphy
 - o Tex Murphy: Tesla Effect
 - o Mosaic
 - o Dear Esther

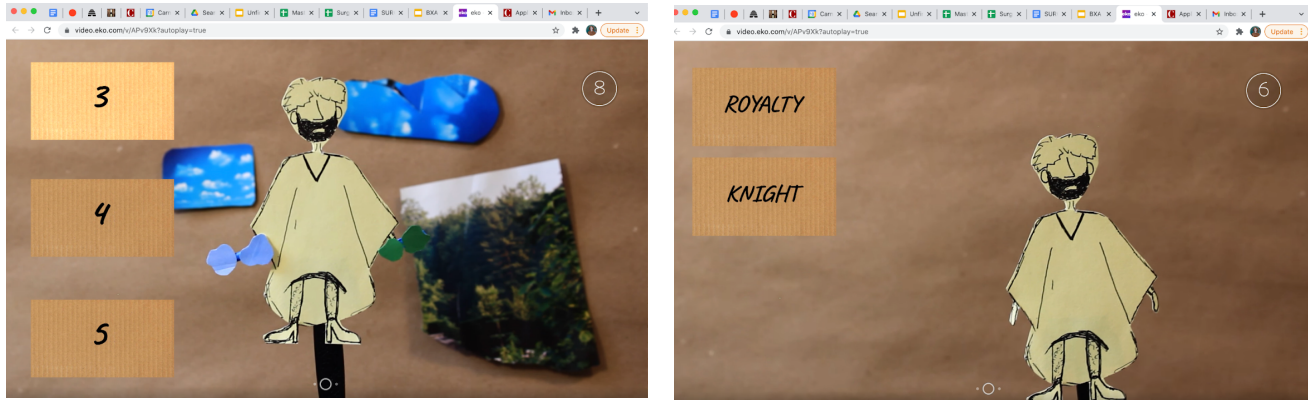
Significant Names in the Industry

- Sam Barlow
- Jamin Smith
- Yoni Bloch
- Alexis Kirke

- StoryFix Media
- Wales Interactive

- o few discrete possibilities. The branching is not dynamic, in real time with near-infinite possibilities. In effect, the gamer may pick from a few possible endings, but not create his own.
 - Limitation of the medium currently== maybe one day this may not be the case?
- o Trying over and over again is the nature of video games "but also gets in the way of meaningful storytelling" because it prevents empathy (such as in movies)
 - Excellent point
 - But I would say that makes the job of the storyteller not impossible to create empathy, you just have to figure out creative ways to elicit emotion
- o "The telling of a truly insightful, meaningful story cannot be achieved by placing a gamer in control of a character and giving the gamer many attempts to do what the character would have one chance to do."
 - Understand where he is coming from and I both agree and disagree
 - I agree that you can not have infinite retries = therefore you have to go about interactive storytelling often differently than just game making (no infinite tries, find ways to create connection, elicit regret etc.)
 - But I disagree that it is impossible, it is definitely possible with a changed mindset
- o "the experiences provided by an interactive event will never be as insightful as the experiences portrayed in great literature"
 - Ultimate thesis = games should not aim to tell stories, and they should stick to telling simple stories
 - BULLSHIT
- **Interactive Documentary as a New Media**
- **Colossal classroom adventure: Developing interactive fiction for English language learners**
- **Chapter Ten Interactive Children's Literature for Early Childhood**
- **Children's experiences with a transmedia narrative: Insights for promoting critical multimodal literacy in the digital age**
 - o "the older children's understanding of narrative conventions and capacity to construe broad social themes by selecting the most apt semiotic resources available in their chosen media"
 - o Presenting stories as a transmedia narrative, i.e. not just in one form, in multiple forms such as a book to interactive app to movie, helps grow children's cultural literacy and understanding of social themes.

Excerpts From My Master Resource Document of Compiled Articles and Influences



Examples from Interactive Film EKO Experiments
(Presentation About My Preliminary Research in EKO)

Prior Experience
(All Prior Experience Listed on [LinkedIn](#))

- **Antiques Roadshow Intern — GBH 2021**
 - Prepared for 2021 tour by managing logistics for 4 shoots of 100 guests each.
 - Attended interactive media workshop from the “Emerging Platforms” department.
 - Relevance: Gained much insight about pre-production needs and the state of interactive media for youth audiences in specifically public television.
- **Feature Film Intern — The Jim Henson Company 2021**
 - Read and wrote coverage for books, pilots, and screenplays.
 - Worked directly with executives to discuss opinions on submitted material.
 - Relevance: Gained much insight into film industry standards and the nuances of creating children’s media and family content with challenging themes.
- **Production Assistant - Untitled PGH 2021**
 - Ran errands, helped on-set for a commercial shoot, managed craft services.
 - Relevance: Experience with on-set productions, scheduling, managing talent, and understanding professional on-set courtesies for film shoots.
- **Audio and Visual Intern — The Big Dipper Dough Co. 2019**
 - Managed all logistics and video production of a 40-person cast for a commercial.
 - Relevance: Experience managing contracts, casting, and handling large crowds.
- **Festival Director - CMU’s Improv Troupe Comedy Festival 2019**
 - Organized the entirety of the CMU improv comedy festival including pitching ideas, managing talent, booking hotels, budgeting, merch, and day-of production.
 - Relevance: Experience with actors, leading groups for creative projects, budgeting, and managing large-scale events and performances.
- **External Music Director & Staff Representative - WRCT Radio Station Present**
 - Maintained communication with promoters, local organizations, and bands.
 - Relevance: Experience with the music licensing requirements needed in my film.