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Berklee College of Music

FLY on THE WALL

Interactive Visual and Audio Installation

Submitted in Partial Fulfillment of the Degree of Master of Music in Music
Production Technology and Innovation

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ABSTRACT

Fly on The Wall is a visual-audio installation that incorporates an interactive walk thru; staged lighting, props, and visual components for each movement of the eight-minute piece of music. It utilizes and applies dramatic theory; French Scenes, color theory, and character development. The set is cyclical in design and shape, and divided into three sections, best representing an exposition/point of attack, climax and denouement. The purpose of the installation was to serve as an experiment in the delivery of character, narrative, commercial audio and reactive interaction with the individual listener. All challenges throughout the process were met and resolved with ease. Ultimately the installation was completed and opened to the public at the Centre del Carme Museum in Valencia for a weekend. Moving forward it is the intention to erect this installation again in varying venues, as an integral way of marketing the future business endeavor for the creation of community computer labs and creative space. In addition, the artistic hope is that *Fly on The Wall* will develop into a multi character series.

Keywords: Installation, Audio, Visual, Ableton, MaxMSP, Resolume, Adobe, Projection

1. INTRODUCTION

Creators often design for the masses. Yet, much like progression of touch and sensory technology, designed with the individual in mind, it is fair to hypothesize that the delivery of music can progress in the same way. There is an incredible opportunity to explore the gap between the cohesive nature of visual art, theater, and music. Exploring this delivery through an interactive installation is a most innovative way to begin to experimenting.

Art, music, and theatre all stem from emotion, experience, thought, and the conception of the human individual. In theatre the audience may often associate to individual characters based on how they are defined by the story, as a whole, or in their relation to other characters. As the audience, we are seldom introduced to the internal monologue of that character, or how they evolved to be, mentally, where they are currently within the linear progression of their own storyline. Similar to commercial music, listeners gravitate towards artists that they enjoy sonically, but may be even more swayed based on marketed design and depiction of the artist. With that in mind, if we remove the narrator or artist, in their physical form, and place more reflection and depiction on the nature of the narrative, the intent and the emotion being conveyed, we test the ability of the listener to empathize, associate and still internalize the information being given. Perhaps it is even natural to assume that the listener might be able to mentally implement themselves *more* in light of not being confined to, drawn by or turned off, based on pre-determined physical depiction.

The goal of *Fly on The Wall* was to provide an interactive environment where any listener would experience a piece of narrative music, greatly constructed around the notion of an

internal monologue, and visual components that do not outright depict the narrator, themselves. The listener was privy to the knowledge that each movement of audio and scene have been created as an integral piece of a the whole; also represented through the visual design which incorporated a linear progression from black and white to full color, much like that which is displayed in the movie *Pleasantville*[1].

Creating an emotional experience for each listener was completed by staging each partitioned area as passage of time and progression. Other aspects such as written work and black and white photography of various places in the world were used to enhance the authenticity of the narrator's personal journey and internal monologue.

This installation is unique because it offers the listener a chance to identify with a narrative inner "voice" via headphones. The audio for the installation is carried over a streaming service in order to extend to a monetary return on the installation. Streaming is also a way of being able to create analytics over time. Should the installation be a reoccurring event in various cities, the analytics offers new insight to track who is listening and from where; potentially aiding to greater determine the demographic being reached. Our current state of pop-culture and the music industry are highly visual and download based within the home of the consumer. However, while the delivery of this installation caters to modern consumer technology, such as streaming, it still requires the listener to attend the installation; further cultivating a way to bring people together and share in what is ultimately a very independent experience.

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[1] *Pleasantville* released in 1998 as a heartwarming depiction of thought and progression based on cultural and social issues. Directed by Gary Ross.

2. REVIEW OF THE STATE OF THE ART

When I was eight I watched the movie *My Girl*[2] it is about a young girl who loses not only

her mother, but her best friend, falls in love, and whose relationship with her father begins to

change due to the new one between him and his girlfriend. In the sequel of the movie, there is a

scene where the main character watches an old home movie of her mother; someone whom

Vada, the main character, knows very little about and longs to have more context of the type of

woman her mother was. The home video portrays a bunch of b-roll and collected moments, but

ultimately ends with a version of the song *Smile*[3] *,* and as the camera pans back towards Vada,

you can see the weight of the moment. Not only because Vada is seeing her mother outside

death, but captured in a moment prior to Vada's birth. Exemplifying the idea of being able to

reflect on a moment only a *fly on the wall* could have seen; emotion which is heightened by the

choice of the music in relation to the context to the scene.

This moment is striking, greatly in part because of the whole concept; conveying not only

a specified and character defining moment, but also internal conflict and yearning for resolution.

Much like reading someone's diary, or going through old reels of home video, love letters or

picture books; there is something intriguing about being someone on the outside looking in.

Ironically enough in a modern-day society where social media has become a world wide

tool, platform and phenomena, the viewer is constantly able to "look in" on others. The

difference, or even perhaps lack thereof, between social media and this scene is the construction

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[2] *My Girl*: Film directed by Howard Zieff, produced by Brian Grazer, written by Lauirce Elehwany (1991)

[3] *Smile:* Song composed by Charlie Chaplin (1936) Lyrics by John Turner & Geoffrey Parsons (1954)
https://www.youtube.com/watch?v=RYvA3lKNH1w

of realism. In the movie we have a scene created to convey an actuality, and on social media; it is used to convey much the same (through highlighted text, thoughts and visual content) but often lacking in context, and therefore we as the viewer are left to interpret what we assume from a post. *Fly on The Wall* is potentially a lot like social media but in reverse; the listener is given context based on looking in, but no defined visual of narrator.

A. WORKS FOUND

The following are a selection of pieces discovered through online research that host particular aspects similar to the environment aimed to achieve. In example number 1; *The Hunter* depicts in installation which incorporates set, lighting and visual projection on a scrim behind the set. In *Silent Movie* the concept of being on the "outside looking in" is clearly expressed. In number 2, *Sparrow Song*, the incorporation of projection mapping on and within a life size set. Number 3 is an article which speaks about a museum which invites attendees to break the 4th wall, further identifying with the aim goal of *Fly On The Wall.* Finally, in example 4 we look *Rainforest Lumina* which incorporates set, visual projection, interaction and scene design. This is a wonderful example of the immersion *Fly On The Wall* will offer the listener in addition to three pieces of new music.

1. THE MAGUIRES (THEATRICAL INSTALLATIONS)

   https://www.studiomcguire.com/

   THE HUNTER (https://vimeo.com/52230740#)

   SILENT MOVIE (https://vimeo.com/28771001)

2. MATTHEW RAGAN (viSUAL ARTIST & DESIGNER)

   SPARROW SONG PROJECTION MAPPING

(https://www.youtube.com/watch?v=NtNLWex7i7U)

3. ARTICLE: An ingenious museum design that turns *visitors into creators*

   "fourth wall…taking a step towards getting rid of it"

   (https://www.wired.com/2014/06/a-design-museum-that-turns-its-visitors-into-designers/)

4. MOMENT FACTORY (COMPANY FOR HIRE)

   "content, interactive, scenography" (https://momentfactory.com/)

   RAINFOREST LUMINA (https://momentfactory.com/work/all/all/rainforest-lumina)

3. DESCRIPTION

The installation was set in a large, dark room at Centre del Carme Museum. The structure was circular and divided into three sections. Each section designed around three main divisions, or scenes, defined as; *Point of Attack, Climax & Denouement.* Each scene also acts as an example of *French Scene* mapping, implying the coming and going of people in the narrator's own story line.

> *"In a French scene, the entrance or exit of a character divides the beginning and the end of the scene. This is different from other scene divisions, which may use a change in background, lighting or stage curtains to signal a scene change. The French scene was popular during the 17th century when there were very few theatres in France. This caused theatre performers to use houses, hotels or other sites that were not proper venues for playacting. Many of these makeshift theatres were extremely small and did not have the necessary space for set props, extravagant backgrounds and stage equipment. Therefore, actors devised the French scene to solve the matter of signaling a change in scene without extensive production equipment."* (*What Is a French Scene in Theatre?,* Reference.com, accessed July 5, 2019)

The installation incorporates multiple elements introduced through core academics taught at Berklee Valencia with in the Music Production, Technology and Innovation department. By incorporating such elements, the initial idea of the installation was able to both fruitfully expand and adapt with regard to the initial outlined proposal and intended structural set.

The audio runs in one track, but is divided into three movements; one for each scene. Each movement can be audibly noted not only by the change in tempo, instruments and mood, but by the inclusion of sound design positioned to act as interludes. Lyrics are included in the opening movement to act like a story teller; a setup for the *Point of Attack*, a term used to identify the moment at which the story starts. An inner monologue is placed in the second movement (and scene) to further reflect lapse of time, internal conflict, death, thought and growth. Finally, in the third movement there is only music; calming, and rich- produced to cultivate the idea of floating on water. Almost ethereal and faith like, implying that the narrator has found peace, resolution and a realm of possibility.

The color fuchsia lines the perimeter of the structure, creating more defined aesthetic lines while maintaining a warm and inviting feel to the environment. Fuchsia, hexadecimal code FF00FF, on the RGB scale also sits directly between red (FF) and blue (FF). This choice of color was in light the immediate thoughts associated to red and blue. Blue felt like a very cold color choice, and red was too intense.

The listener enters the room; collects a set of headphones, scans the QR code to retrieve the link for streaming the audio track, walking counter clockwise, the listener moves around the

structural set, enjoying and freely able to witness to the constant looping visuals in each scene,

while the audio plays.

    In the opening scene (*point of attack)* the listener entertains a full black and white movie,

filmed to act much like a home video; amateur and almost invasive. A moving and see-thru

curtain is placed over the structural wall and in front of the projected image, creating a 3D

dynamic to the projection, as well as the feel of looking into someone's window. The imagery is

based on parental figures who are ending their relationship (See Figure 1). The essence of the

scrim was to reflect the perspective of the narrator as a child and the presumption that children

who bare witness don't understand or don't clearly see. The attempt in this scene was to convey

the idea that just because we don't always see everything in full, does not mean that we are not

aware or affected.

Figure 1 Scene One Point of Attack

Moving into the second scene, the structure is divided down the middle and the floor is covered with the crumpled papers, that look as if they have been torn out of a journal. On the left side there it is dark and un lit, and the wood paneling has been burned into. The imagery is almost that of a birch tree, white and engraved with black etching. On the right side the listener watches an evolving image of a trees changing in in color and design and fully immersed in waves of color (See Figure 2). The two panels together create the middle area where the listener stands, a limbo of sorts between two extremes. Here, the listener is meant to feel as if they're with in the internal chaos of the narrator. The internal monologue placed over top of the instrumental audio reflects and speaks about darkness and light; not only about being consumed by the first but then evolving into the light over time. The listener should feel a sense of death and loss and what the narrator is leaving behind, but also a sense of anticipation, growth and change, as they move into the final scene.

Figure 2 Height of Climax

In the third scene, the listener is invited to interact with the props and visual. While the writings and photography have been scattered and intentionally placed on the ground(See Figure 3), there are particular writings, placed on a faux book binding, available to the listener to look through. On the right side of the faux book, which sits on the top of a meter-tall block of wood encased in writings and photos, there is the incorporation of *Leap Motion*[4]. *Leap Motion* is run in part with *MaxMSP*; a user-friendly coding and interactive software. The imagery used in scene three is implemented as a movie version, into the Max program, where filters based on color and shape are applied, all of which are manipulated by numerical range and settings. The *Leap Motion* is then given set values and parameters, intended to interact with the entire human hand, purely just for movement pertaining to a x and y axis. The x is to affect the shape filters in Max, and y is set to adjust the color being reflected in the imagery, based on a scale of all possible RGB combinations. (See Figure 4)

Figure 3 Denouement

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[4] Leap Motion formerly known as *OcuSpec,* is an American based company responsible for the creation of a computer software designed to offer touch-free hand-motion sensor and tracking. Most notably known for the inclusion in VR experience.
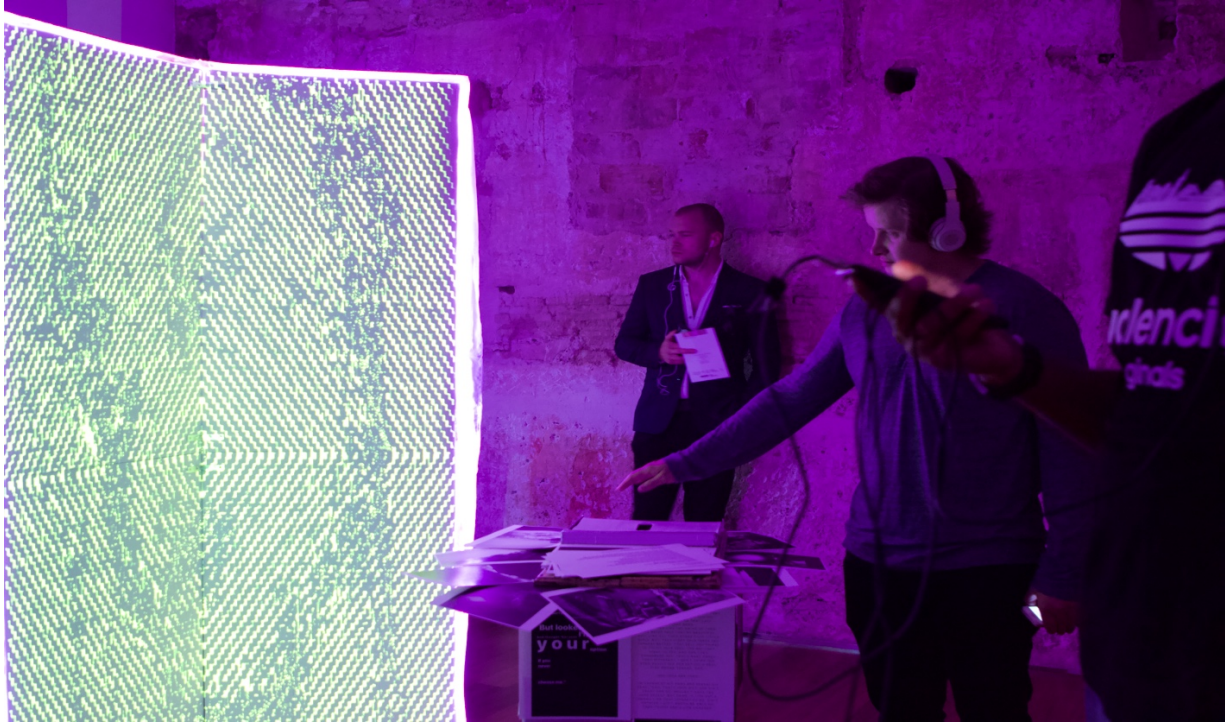
Figure 4 Leap Motion

Aside from the structure, all three scenes are powered via a Mac mini and individual projector. The projection of all the visuals utilizes the computer program *Resolume*, which is a widely used program for VJs in the live performance world. For scene one and two the visuals are easily projected by the program by simply importing the movie file and selecting play. However, since scene three requires the interactive software *Leap Motion* and *MaxMSP*, to run simultaneously, *Syphon Recorder* was downloaded and used as an input source in *Resolume.* *Syphon Recorder* which is widely used with *MaxMSP* to record or display, allotted for the interactive imagery to be projected through *Resolume*.

4. INNOVATIVE ASPECTS

What makes this installation innovative, aside from; aesthetics, audience interaction, set design, time, character, emotion, etcetera, is its physical size, incorporation of commercial music, theory and analysis. In addition, the nature of delivery; headphones, streaming and physicality. All of which will demand the listener to travel through the experience in an intimate and emotionally evoking manner that differs from the above-mentioned pieces. With regard to structural deliver, this piece, has no marked beginning or end. The cyclical nature incorporates the idea that once we complete a moment, we simply start again. By requiring the listener to step into and around the structure, physically, there is a greater element of being with in the expressed moment, as opposed to just using tangible interaction and a cliché break of the 4th

wall. In essence, the listener becomes a fly on the wall of each French scene offered. It's the

fantastical thought of being able to step *into* a doll house, an episode of the *Magic School Bus* [5],

when Mike shrinks himself into the tv in *Willy Wonka & the Chocolate Factory* [6], or even the

moment when the viewer travels into the memory marble of Bastian and his mother in *The*

Never-Ending Story [7] . Ultimately, the act of delivery in this installation is to convey the idea of

being able to witness someone else's thought, emotions, memory; someone else's space and

time and not only empathize, but identify and internalize those emotions being conveyed.

Videos are not as prominent on television as they used to be. New tactics like the

creation of Beyonce's *Lemonade*[8] ,or J COLE's mini docu-series[9], are progressive steps forward.

This installation only enhances the venture and evolution of the delivery of music. Is music and

thought better understood, perhaps more enjoyable, or easier to associate with, when there is a

character breakdown and less physical form? An acknowledgement for why the narrator is the

way they are? Are we able to stretch our imaginations the same way we do when reading a

book, by creating and expressing details, bits of exposition, just enough that the mind may

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[5] *Magic School Bus* is a scholastic television program produced by South Carolina ETV Nelvana based on the book written by Joanna Cole & Bruce Degen

[6] 1971 Film directed by Mel Stuart, Produced by Stan Margulies & David L Wolper, based on the book *Charlie and the Chocolate Factory* by Roald Dahl

[7] 1984 FIlm directed by Wolfgang Peterson, Produced by Bernd Eichinger and Dieter Geissler, based on the book *The Neverending Story* by Michael Ende

[8] 2016, a visual and cinematic album released by artist *BEYONCE* under Parkwood & Columbia Records

[9] JColes *Homecoming; Forest Hills Drive* premiered on HBO in 2016, documenting his life and the involvement of his then, new album *Forest Hills Drive.* Directed by Scott Lazer

wander and fill in the gaps? Can the listener become more emotionally invested in the music by

receiving it in this way?

5. NEW SKILLS

Constructing, designing and producing this installation brought tons of new skills to the table.

Learning basics of multiple computer programs including; *Adobe effects, Premiere, Cinema4D,*

Ableton, MaxMSP, Resolume and *Leap Motion.* Through this process skills were introduced like

the recreation of visual art from the tangible to digital form, for the tree in scene 2. (See Figure 5)
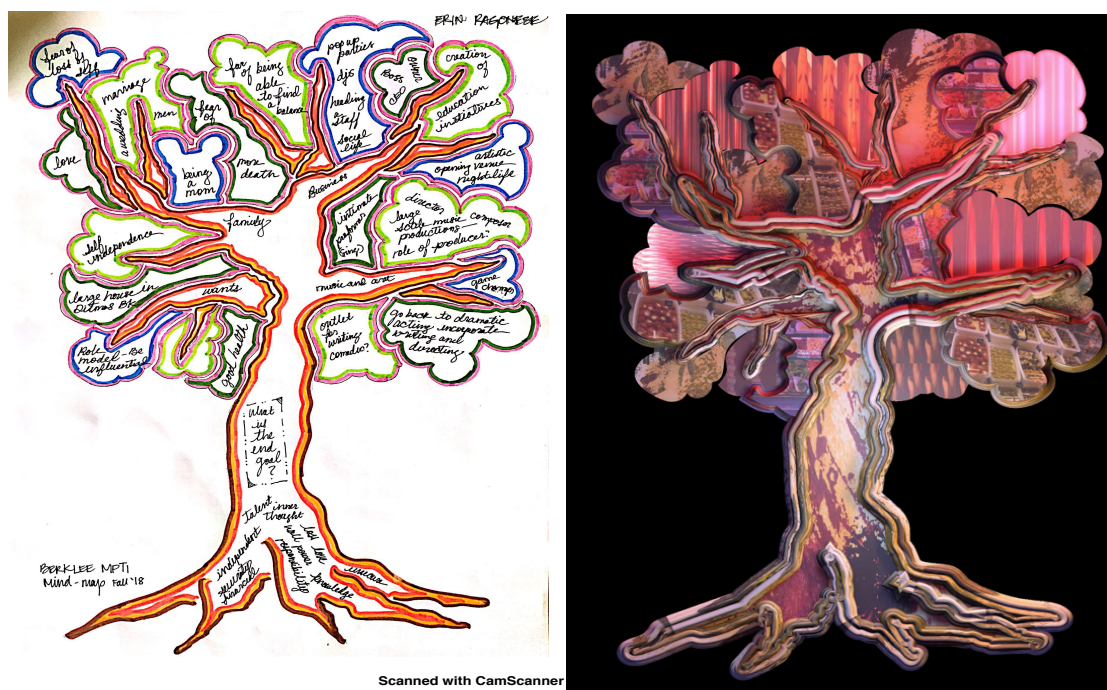

Figure 5 Cinema4D

Learning about using electrical current to create designs on wood was also an interesting skill,

and definitely apart from the rest of the technical and programming-based skills. Scene 3 was

the most advanced scope of learning. Being able to create a patch with *MaxMSP* that fostered

and effected the movie format of the visual being used, then being able to identify the numerical values deemed by the filters in *Max* and applying them to the *Leap Motion* as parameters, so that the interaction element would be available to the consumer. In a more general life experience sense, being able to recognize resources or lack thereof and determine how to execute the project anyway was definitely and enhancement of practical skill.

6. CHALLENGES

Challenges encountered amidst the process were not greatly unforeseen and primarily based on resources available to execute the structure of the installation. There were minor hiccups in regards to visual content and the export thereof. However, the ability to know when to let particular ongoing issues *go* and move forward for the best of the project, is an invaluable learning curve. The majority of the challenges that presented themselves in a technical fashion and in the beginning stages of determining how to create the structure itself. Other challenges that arose were the export of trim paths created for the left panel in scene 2. After many tries, ultimately the trim paths were put to rest in order to move forward with the opening of the installation. The largest issue that was encountered was the use of the headphones. Being that this was set in a European country there were a multitude of phones that weren't able to utilize the instant scan of the QR code when the phone is in camera mode, so a link had to be provided. In addition, listeners who had a newer version of iPhone, required a dongle in order to utilize the headphones offered. Moving forward wireless headphones would be ideal for all.

7. FUTURE RAMIFICATIONS

The intention is to eventually turn *Fly on The Wall* into a mini series, with multiple characters, story lines, sets, and visuals. Also utilizing the delivery of music and multi media to release small audio projects to the public. Ideally doing a release for a small ep in multiple cities around the world, simultaneously. Eventually even working with other artists to do similar pop ups in order to gain traction. Using the data gathered over time through the scope of streaming to hopefully either widen the viewer and listener demographic or hone in on potential high foot traffic cities and sites. *Fly on The Wall* will also be an essential tool used in the pitch and marketing of the future business proposal for community computer labs and creative spaces. The idea is for *Fly on The Wall* to be an example for potential investors or partners to see the possibility available to those with the resources to work in such programs as the ones used for this installation.

8. CONCLUSION

The ability to execute this installation with minimal hiccups and unforeseen issues was perhaps ideal. Yet, there was a lot of personal growth not only cultivated through the process as a whole, but it became exceedingly obvious that this installation brushes only upon the surface of what is capable. The reaction from all listeners was incredible. Their ability to connect, as individuals, with the idea of the narrative and collectively convey the emotional journey that the installation is intended to take the listener on, was a win. The piece, as a whole, felt clearly expressed, the music sounded full and sat nicely in all headphones, the visuals in their entirety were rich and vibrant and the fuchsia tied them together wonderfully. This project was a candid

and honest reflection of self, not only through ability and skill, but in regards to identity, personal

conflict and growth. The idea to execution came full circle, ironically.

BIBLIOGRAPHY

IMDb. "J. Cole Forest Hills Drive Homecoming (2016). IDMb.com. Accessed December 30, 2018, https://www.imdb.com/title/tt5262198/.

Reference*.*"What Is A French Scene In Theatre?" Reference.com. https://www.reference.com/artliterature/french-scene-theater-ac3b1cfe41ce2898 (January 21, 2018)

Wikipedia. S.v. Leap Motion." Last modified Decemeber 3, 2018, 04:23, https://en.wikipedia.org/wiki/Leap_Motion

Wikipedia. s.v. "*Lemonade* (Beyonce album)." Last modified July 4, 2019, 15:16, https://en.wikipedia.org/wiki/Lemonade_(Beyonc%C3%A9_album).

Wikipedia. S.v. "*My Girl*" Wikipedia.com. modified June 28, 2019, 22:19, https://en.wikipedia.org/wiki/My_Girl_(film)

Wikipedia. S.v. "*Pleasantville* (film)." Wikipedia.com. Last modified July 2, 2019, 12:10, https://en.wikipedia.org/wiki/Pleasantville_(film)

Wikipedia. S.v. "*Smile* (Charlie Chaplin Song)". Wikipedia.com. Last modified July 3, 2019, 10:29, https://en.wikipedia.org/wiki/Smile_(Charlie_Chaplin_song)

Wikipedia. S.v. "*The Magic School Bus*". Wikipedia.com. Last modified May 13, 2019, 22:42, https://en.wikipedia.org/wiki/The_Magic_School_Bus

Wikipedia. S.v. *"The Neverending Story*". Wikipedia.com. Last modified June 30, 2019, 21:59, https://en.wikipedia.org/wiki/The_Neverending_Story

Wikipedia. S.v. "*Willy Wonka and The Chocolate Factory*". Wikipedia.com. Last modified July 1, 2019, 00:12, https://en.wikipedia.org/wiki/Willy_Wonka_%26_the_Chocolate_Factory