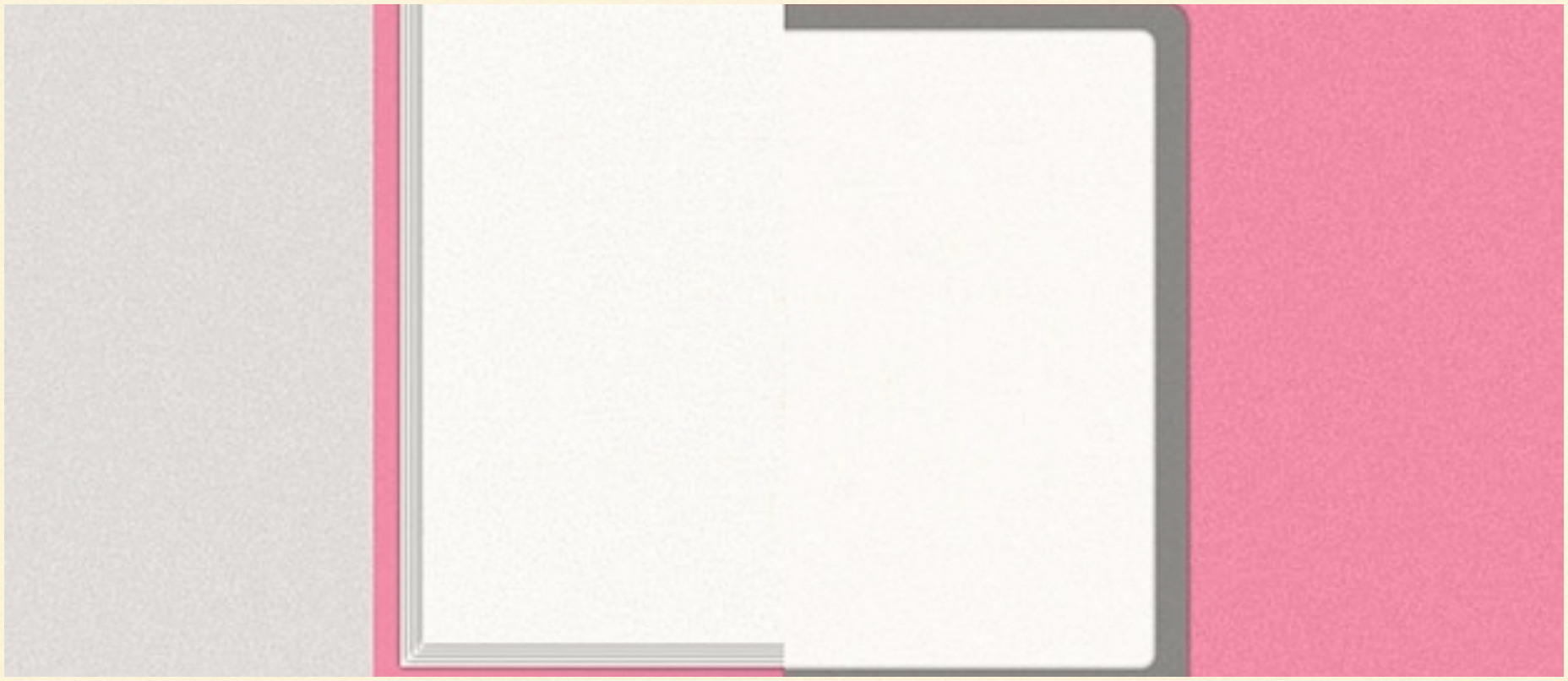
Digital Storytelling

by Dene Grigar, PhD



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This chapter introduces the book as well as the concept of story. It explains the premise of the book and why stories may have arisen as part of human existence and remain important in our lives.

Preface; Chapter 1: Story, Definitions & Theories

Preface

This textbook embraces the idea that STORYTELLING is born from oral modes of expression adopted and articulated into written and print-based literary arts and, later, media art that arose from electronic and computer media. Thus, any discussion of it must begin with a study of literature. The DIGITAL focus of storytelling in this book centers primarily on theories generating from communication and media studies beginning with Marshall McLuhan, with emphasis on later discussions of computer-based human expression of the late 1980s onward.

Consider the book a collection of notes, essays, and ideas developed through the years. It is intended as a tool for teaching both theory and practice to undergraduates educated to create websites, mobile apps, virtual and augmented reality environments, 2 & 3D animations, videos, multimedia performances, curated exhibits, interaction installations, and social media content. It is given freely to read and share. Errors found in this version will be addressed, and ideas not fully theorized will expanded upon in later editions.

--Dene Grigar, 2018, Vancouver, WA

STORY, according to William Harman and Hugh Holman, can be defined as "any account of actions in a time sequence; any narrative of events in a sequential arrangement." From their perspective STORY is an account of an event that compels us "to want to know what happened next" and serves as the "common element" that connects all forms of fiction (486). Robert Fulford tells us that "[s]torytelling is the mother of all literary arts. Stories touch all of us, reaching across cultures and generations, accompanying humanity down the centuries" (ix).

If you google the word "STORY," you may come across definitions referring to it as prose NARRATIVE or a TALE intended to "interest, amuse or instruct the hearer or reader" (dictionary.com).

The terms STORY and NARRATIVE are often used interchangeably since NARRATIVE too is defined as "an account of events" (Harman and Holman 328). TALES, however, traditionally refer to the general term for stories that are "simple" and "short" (Harmon and Holman 503).

Chapter 1

The theory of NARRATIVE is called narratology. It calls for a deep examination what links all NARRATIVES and at the same time makes them unique. The role of the hero in folk tales is one such area of

The Good Samaritan, stained glass windows, southside aisle, Cathédrale Notre Dame de Chartres, baie 044, licensed for us from Creative Commons

study that a narratologist may pursue (Groden and Kreiswirth 524). For narratologists, stories can take shape in many mediums (oral, written) and forms (sign language, still or moving pictures, paintings, stained glass windows, music, comics, and the like). In other words, stories are not limited to the printed word but can be expressed in a multitude of modalities and reach beyond the notion of literature.

One of the most compelling descriptions of STORY comes from Mark Turner who claims that it is "a basic principle of mind." For him, human "experience, our knowledge, and our thinking is organized as stories (Turner 3-4). In his book, The Literary Mind, Turner defines STORY as "narrative imaginings" and argues that the "mental scope of story is magnified by projection." Put simply, this means that one STORY "represents one thing through the guise of another" (Harmon and Holman 11). The premise of Turner's book is that the parable—that is, a "short, simple story illustrating a moral lesson" (Beckson and Ganz 190)—is "a basic cognitive principle" ("Preface") and "the fundamental instrument of thought" (4). The implication of this idea is this: Our rational faculties require, need, frankly rely on our ability to tell stories because it is "our chief means of looking into the future, of predicting, of planning, and of explaining." In short, he says that "[i]t is a literary capacity indispensable to human cognition generally" . . . that the human "mind is essentially literary" (4-5). Ultimately, STORY is what drives the development of language. Turner goes so far as to say that "[s]tory precedes grammar. Projection precedes grammar." For him, "Parable is the root of human mind—of thinking, knowing, acting, creating, and plausibly even of speaking" (168). Agreeing with Turner, Fulford tells us that "narrative, as opposed to analysis, has the power to

mimic the unfolding of reality" (15). He goes on to say that:

> NARRATIVE is selective, and may be untrue, but it can produce the feeling of events occurring in time; it seems to be rooted in reality. This is also the reason for the triumph of narrative, its penetration and in some ways its dominance of our collective imagination: with a combination of ancient devices and up-to-the-minute technology, it can appear to replicate life. (15-16)

An exploration of storytelling practices in ancient and contemporary cultures bear out this claim. The drawings on the Caves of Lascaux, which date back over 20,000 years, show stories of the hunt and encounters with animals. Ancient Greek audiences over 2500 years ago were confronted in tragedies like Sophocles' *Oedipus* with issues relating to regicide, incest, war. For possibly over 60,000 years Aboriginal Australians have sung stories handed down through generations about the location of sacred water sites and special landmarks as they engaged in their walkabouts through the harsh desert terrain. In the early 20th century F. Scott Fitzgerald captured the imagination of his generation of readers in novels and short stories about flappers,

Lascaux cave. Prehistoric Sites and Decorated Caves of the Vézère Valley (France). 2006. Licensed use though the Creative Commons

speakeasies, and jazz music while Charlie Chaplin regaled his audience in movie palaces across the nation with his films featuring The Little Tramp. Anyone listening to George Gershwin's musical composition, *Rhapsody in Blue*, at the time recognized a tale of the hustle and bustle of New York City, circa 1920s. Today, we experience stories in games we play, television shows we watch, graphic novels we read, and tales we hear.

Movie 1.1 *Kanaka Burned, by Brett Oppegaard*

This video is part of Fort Vancouver Mobile, a mobile app created for Fort Vancouver National Historic Site that tells the story of the Hawaiian workers who lived and worked at the fort at the height of the Fur Trade Period. With permission.

If indeed Turner is correct that STORY is how we organize our brains to make sense of the world around us, then it is imperative that we understand how to analyze STORY in the various ways it is expressed today digitally—mobile apps, virtual and augmented reality environments, video games, websites, and other born-digital forms—and to know the ways that it can be structured and expressed, for doing so means we come to know and expand our own minds, and our own ability to communicate ideas in our own temporal moment.

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Activities:

1. View "The Present" by Jacob Frey (https://laughingsquid.com/the-present-a-touching-animated-short-film-about-a-boy-and-his-new-dog/), and answer the following questions:

- Identify the sequence of events in the story. At what point in the sequence does the story shift and results in presenting a different perspective of the main character?
- What aspects of the sequence of events maintains your attention to the end of the story?

2. Interact with "Perpetual Nomads," by Mez Breeze and Andy Campbell (a VR story, supplied in class), and answer the following questions:

- How do the authors sequence the events taking place in the story? How is this strategy different than the previous story?
- How does this strategy change the way you experience the story? How does it maintain your interest?

3. Based on Mark Turner's idea that story is "mind," how do the stories represent different ways to structure the way we think?

From Digital Storytelling, https://www.pinterest.com/nelasport/digital-storytelling/

This chapter addresses components of digital storytelling relating to the substrates of a work, namely the medium on which it is presented and the platform on which it is produced.

2 Storytelling Mediums and Platforms

Etymologically speaking, MEDIUM means “middle” (the Latin media=”middle”), suggesting that it lies and / or mediates between things. This idea lends itself to a working defintion: “an element used in communicating a message” (Rouse). Lying or mediating between things implies also that it can manifest as *surface*, negotiating and mediating between stuff found one side of it with stuff found on the other, a concept that fits with the idea of the surface of a computer screen or a page of a book. That MEDIUM has traditionally been portrayed as immaterial, exerting no influence upon meaning is a view now under attack. Communication theorists, such as Klaus Krippendorff, for example, adhere to the notion that medium provides the background of one’s “reflective monitoring.” For them, MEDIUM sits outside of our “horizon” of “understanding” but “includes what

[we] may conceptualize as latent consequences." Further, it comes to us "as the work of the unconscious" . . . "other biological phenomena," and . . . "the co-presence of extra-individual events" (83). On the other hand, translation and media theorists believe that MEDIUM is material: The fact that an object has a surface implies a physical quality that cannot be ignored in the translation process, unless to the detriment of the translation of that object. Studies in paralanguage and nonverbal communication, for example, attest to the importance of the body as MEDIUM as when conveying a character's body language verbalized or described in literary works (Poyatos, 28). Likewise new media scholars, like N. Katherine Hayles, argue for the materiality of the computer MEDIUM, pointing to the "polymers used to fabricate the case, the rare earth elements used to make the phosphors in the CRT screen, the palladium used for the power cord prongs, and so forth" (32).

If we accept the notion that medium is indeed material, then we must acknowledge that "the physical form of the . . . artifact always affects what the words (and other semiotic components) mean (Hayles 25). Texts—that is, any form of information—is perceived differently depending on the medium it is received. Texts produced for the computer medium have a quality Hayles calls "electronic textuality," a textual state that attends to multiple "signifying components," such as "sound, animation, motion, video, kinesthetic involvement, and software functionality among others," and appeals to multiple senses required in the interpretative act of those components (19-20). She argues that to understand born-digital texts, we should use an approach she calls Media Specific Analysis (MSA), that "attends both to the specificity of the form" (30). This means that when we analyze a video game like *Unravel*, we should consider STORY from the perspective of what we see, hear, touch, gesture since all of these components contribute to it. This is a very different approach than what we would use to analyze a print-based novel where the senses required are primarily seeing and touching (and if it is an old book, smelling). One could argue that the reason why PDFs are so dissatisfying to experience on a computer is because the texts were originally aimed at the print medium and do not take advantage of the affordances of the electronic medium of computing devices.

One can even go further and argue that within the electronic medium "underlying

computer systems" affect the way we can express ourselves (Bogost and Montfort). Drawing up a theory they call Platform Studies, Ian Bogost and Nick Montfort focus on computational platforms relating to hardware and software in the production of creative work and the way these systems inform and impact culture (Bogost and Montfort). As they tell us:

> The home videogame console is an influential and important type of platform, and one of the most easily identifiable platforms, because manufacturers have standardized the design and features of such systems and have spent a great deal of time in advertising them and making them distinctive. But platforms are pervasive in all sorts of computing. Personal computers like the Apple][are platforms. Programming languages such as BASIC can be thought of as platforms. Culturally important systems from decades past, such as the PLATO systems of the 1960s and '70s, are platforms. Platforms support digital art, hypertext, interactive fiction, chatterbots, recreational programs that aren't standard games, and other sorts of new media production. (Bogost and Montfort)

In other words, stories are affected by the hardware and software used to produce them. PLATFORM is defined as "the abstraction level beneath the code . . . the humanistic parallel of computing systems and computer architecture, connecting the fundamentals of new media work to the cultures in which they were produced and the cultures in which coding, forms, interfaces, and eventual use are layered upon them." Platform Studies, therefore, "investigates the relationships between the hardware and software design of computing systems (platforms) and the creative works produced on those systems, which include but are not limited to video games—digital art, electronic literature, recreational and playful programs, and virtual environments are all built upon platforms, too" (Bogost and Montfort).

Their theory plays out in the case of experimental literary art created for the computer medium with Flash software, a vector-based software program for creating animation and "the de facto standard for dynamic online multimedia" (Salter and Murray) in late 1990s to the mid 2000s. The software gave birth to the rise of net art during its heyday and made it possible for novice users to animate works for the web. The introduction of mobile media,

particularly the Apple iPhone in 2007, started its demise. The rationale Steve Jobs provided in 2010 for not supporting Flash centered on six issues with the software program, most notably that Apple opted for using "open standards" for its operating system—HTML5, CSS3, and JavaScript—that allowed for the same results ("advanced graphics, typography, animations, and transitions without elying on third party browser plug-ins") but without the need for third party plugs in and undue stress on the phone's battery (Jobs). In fact, he argued, Flash was originally intended for the "PC era--for PCs and mice" and a time when it was needed for "watch[ing] video or consum[ing] any kind of web content" (Jobs). It's day, he suggested, was over.

Certainly Flash as a system made animating content easy at a time when broadband access was rare and processes arduous—problems that did not exist, for the most part, anymore—but the problem with Job's line of reasoning was that Flash, along with its technical affordances, provided artists with an aesthetic that was hard to reproduce in the coding languages that were supposed to replace it.

Flash was, as Anastasia Salter and John Murray suggest, "inherently visual" (14), resulting in a style that came to be known as "Flashimation (17). This style is described as "simple, clean shapes, limited colouring, and a simplified animation that is more akin to moving illustrations than traditional, full animation" (Baldwin et al). Even now, interactive works produced through coding languages HTML5, CSS3, and JavaScript lack the seamless unfolding of storytelling, a feature that is essentially cinematic in nature.

In conclusion, the digital medium allows us to leverage affordances made possible by computer technologies (e.g. sound, movement). Both medium and platform impact the way we experience a digital story, and this difference extends to the device we use to access the work as well as the software it is built upon.

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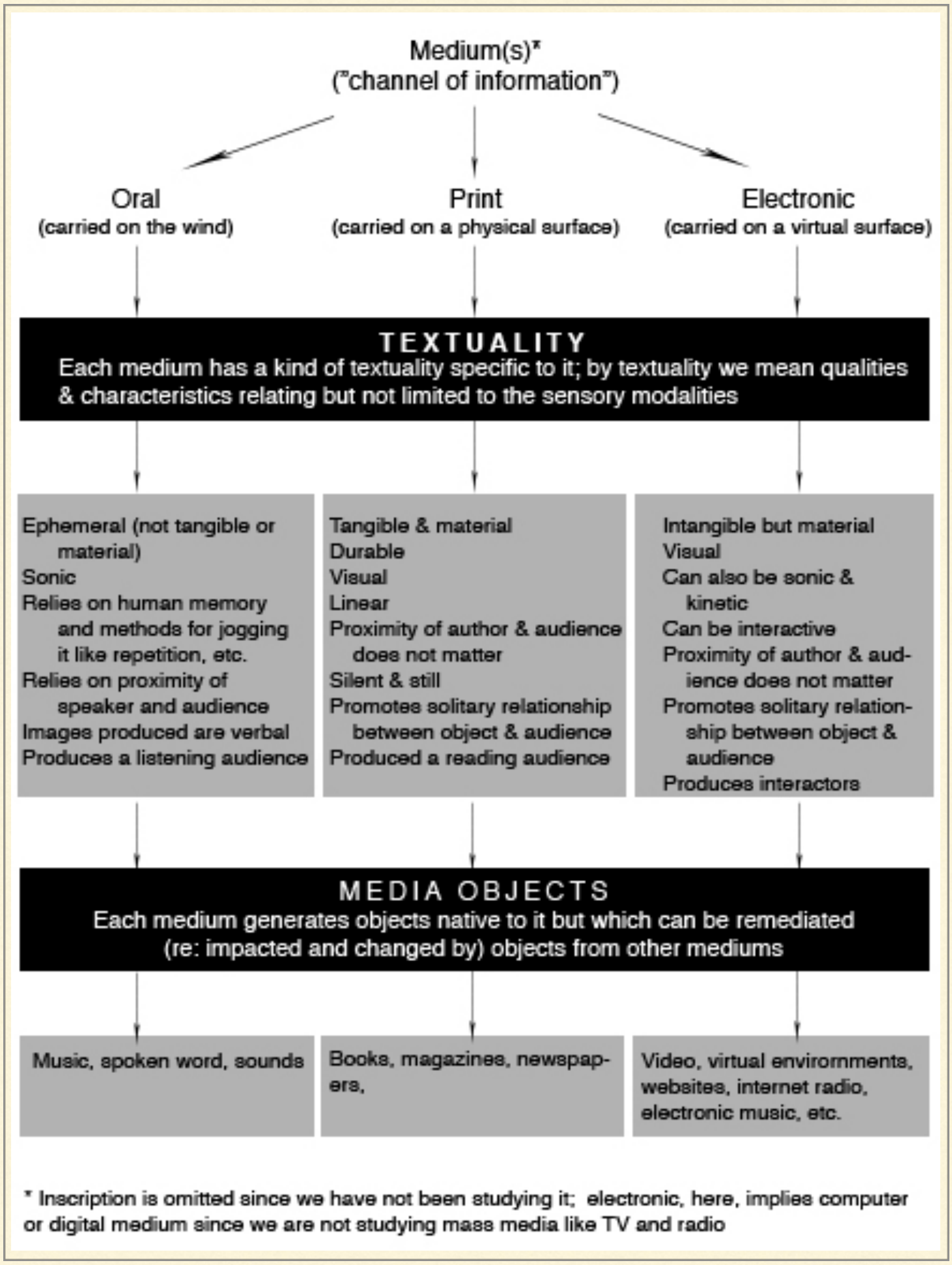
Activities

1. Interact with "Samsung" (on a desktop) by Young-Hae Chang Heavy Industries (http://www.yhchang.com/SAMSUNG_V.html) and "How to Rob a Bank" (on a mobile device) by Alan Bigelow (http://webyarns.com/howto/howto.html), and answer the following questions:

   - Young-Hae Chang Heavy Industries' work was created with Flash and Bigelow's with HTML5, CSS3, and JavaScript. Can you discern differences in the way the two platforms allow for the interactivity to occur? If so, in what ways?
   - What affordances of the mobile device that are different from those of a desktop computer? How do these differences affect your experience with the works? What is the connection between the way the story unfolds and the medium? The platform?



Mediums Chart, by Dene Grigar

"Jenny" - Flight of the Conchords (Visual Narrative) on Vimeo, licensed through the Creative Commons

3

Narrative Structure

This chapter examines the way stories are structured. It begins with a discussion of narrative structure found in traditional literature and film and then focuses on strategies that have emerged due to the affordances of the computer medium.

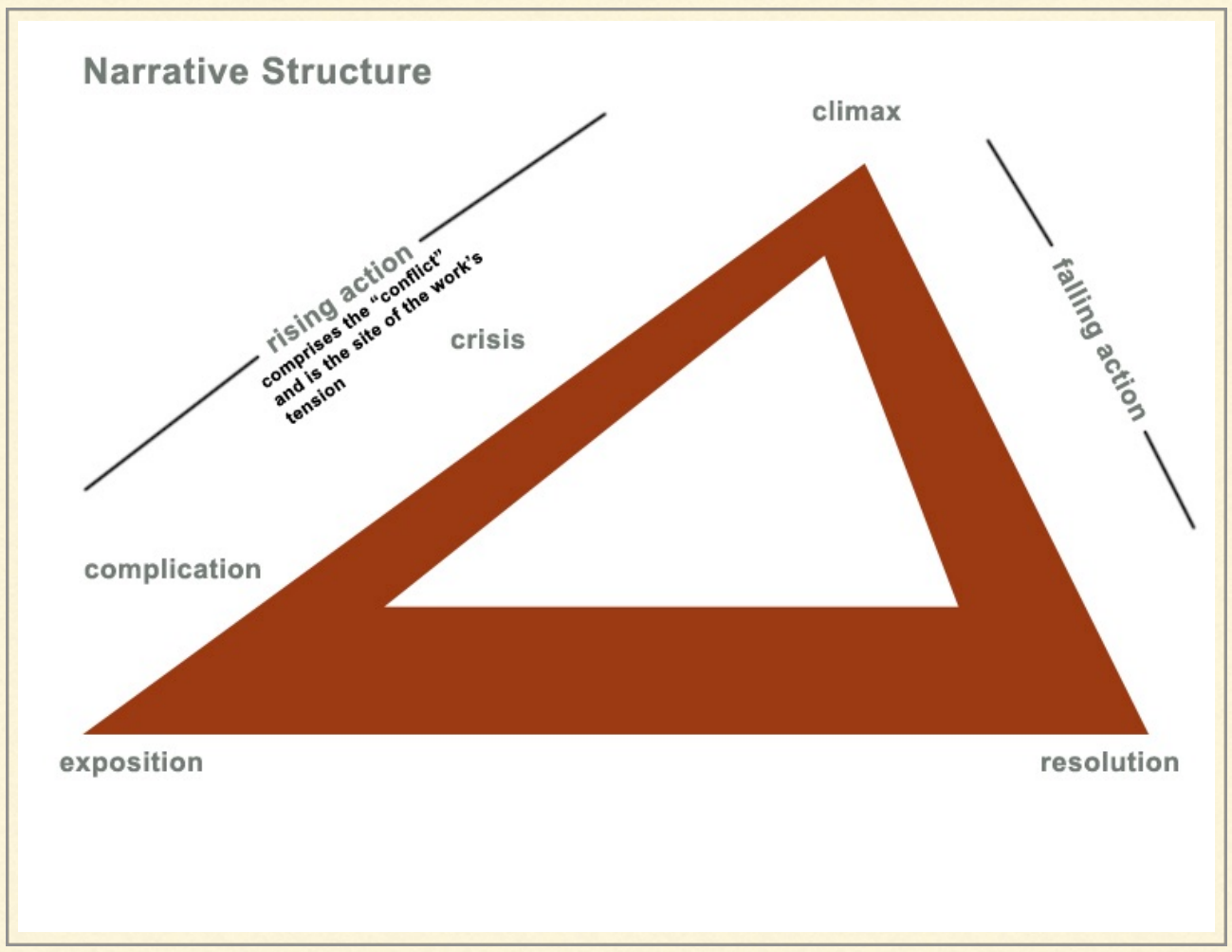
Because stories are accounts of actions told through a sequence of time, they possess an organizational structure that arranges the presentation of those events. This strategy—called NARRATIVE STRUCTURE—can vary from work to work, but all works have some strategy by which the work is organized.

The term used for a narrative's action is PLOT. Much of what we talk about in terms of PLOT is derived from Aristotle's *Poetics*, written in the fourth century B.C.E. At the core of this work lies the premise that "imitation . . . is one instinct of our nature" (421) and that "imitation" focuses on "action and life, happiness and misery. From his perspec-

tive, "life consists of action, and its end is a mode of activity" (424-425). Plots, according to Aristotle, "are either simple or complex, for the actions in real life, of which they are an imitation, are obviously either one or the other" (428). In other words, we produce works that reflect our existence, our experiences, and our emotions.

We live our lives in an unfolding of time. We are born, we live, and we die. We do not have the luxury of time travel and so our sensibilities are built on a linear existence. We can *look* back, but we cannot *go* back. Thus, traditional PLOT structure follows this familiar arrangement of forward movement. Mapped out, linear narrative structure is presented as a climb to the climatic moment of action that then leads to a fall to the end of a story. The diagram below shows the structure created by Gustave Freytag in 1863 that has been influential for discussions relating to plots in many kinds of works.

In this linear model, a story begins with an introduction, or "EXPOSITION," that presents the necessary information about the characters, mood, tone, and setting that facilitates our understanding (Harmon and Holman 201).



Freytag's Pyramid. Narrative Structure, with climbing action relating to conflict leading to a climax and falling action

Implied in Aristotle's views is the concept of CONFLICT: Life does not exist without some sort of challenge, contest, game, or struggle—what in ancient Greek would be called *agon*. This is the nature of our existence, and the way we handle CONFLICT is a good measure of our character. The word *agon* gives rise to other words

used to talk about narratives like PROTAGONIST, or the main character of a work, and ANTAGONIST, the character causing the *agon* for the main character. CONFLICT, therefore, "grows out of the interplay of two opposing forces" and

From Digital Storytelling, https://edudigitalstorytelling.wordpress.com/writing/

"[p]rovides interest, suspense, and tension." There are four kinds of conflict—human vs. nature, human vs. human, human vs. society, human vs. themselves—and there can be more than one CONFLICT in any given story. In essence, CONFLICT "is the raw material out of which plot is constructed" (Harmon and Holman 114).

CONFLICT consists of three components of PLOT that occur over a course in time leading to a high point of the story. They are part of what is called the RISING ACTION, which "begins with the exciting force, gains in interest and power as the opposing forces come into conflict and proceeds to the CLIMAX" (Harmon and Holman 441).

The first of these components is COMPLICATION. This is the point of the story where "the entanglement caused by the CONFLICT of opposing forces is developed," the "tying of the knot to be untied in the resolution" (Harmon and Holman 111).

Next is CRISIS. Derived from the Greek word for a dispute, an event or issue of a thing to be decided, it is the place in the story where the opposing forces of a story "interlock in the decisive action on which [the]plot . . . turn[s]" and where "the situation of the protagonist is certain either to improve or worsen. It is "not an emotional element of a story" but rather "a structural one" (Hamon and Holman 122), which is why it is not the same as a CLIMAX, which follows.

Taken from the Greek word for "ladder," CLIMAX represents the "turning point in the action," the point of highest interest where the audience "makes the highest emotional response" (Harmon and Harman 98).

Once CLIMAX is achieved, FALLING ACTION begins the process of RESOLUTION. It comprises "the second half of a . . . plot" (Harmon and Holman 204). Also known as *dénouement*—the French word for "untying"—it presents "the final unraveling of a plot, the solution of a mystery; an explanation, or outcome" (Harmon and Holman 144).

While stories may have characters experiencing events in FLASHBACKS—that is, "material that occurred prior to the opening scene of the work" (Harmon and Holman 210-211) and can offer many different plots occurring simultaneously, linear stories unfold in a forward moment of events. For example, the plot of Homer's *Odyssey* begins with Odysseus stranded on an island. The story shifts to his wife Penelope, who has been struggling against unsavory men trying to overrun her kingdom. The story shifts again to recount Odysseus's son's travels to find his father, then to Odysseus's adventures following the fall of Troy—episodes that serve to explain his whereabouts for the the past two decades and reasons he has taken twenty years to get home. The story ends with his return to his kingdom, his slaughtering of the men who had caused so much strife for his family, and his reunion with his beloved wife. Many flashbacks move the story temporally and a prediction at the end of the story suggests a future for Odysseus that includes yet another journey, his happiness and joy of home life to be short-lived. The complexity of the PLOT does not belie the story's basic structure involving RISING and FALLING ACTION, CLIMAX and RESOLUTION. As Aristotle writes:

> In composing the *Odyssey* [Homer] did not include all of the adventures of Odysseus—such as his wound on Parnassus, or his feigned madness at the mustering of the host—incidents between which there was no necessary or probably connection: but he made the *Odyssey* . . . around an action that in our sense of the word is one [unified plot]" (427).

Like the author of the *Odyssey*, artists express their vision in unique and inventive ways, oftentimes pushing against the boundaries of the medium in which they

work. But while the medium may offer many affordances, it also comes with constraints. To provide sound in a print book, one must find some sort of specialized technology that will allow it since sound is not one of the print medium's natural affordances. To reflect, in writing, the sonic nature of the works's sung melody, methods of representation, called diacritical marks, had to be devised for the words.

Though processes can be put into place to aid a work's shift between mediums, repurposing a work does not automatically result in the utilization of the new medium's affordances. In fact, as Jay David Bolter and Richard Grusin argue, new media often times borrows from the previous ones, a process they call "remediation." REMEDIATION is "the formal logic by which new media refashion prior media forms" (273). Early film, for example, replicated approaches of stage plays, with the camera, representing the audience's view, focused a central action. Orson Welles' *Citizen Kane*, released close to fifty years after the first movies were introduced, tapped into the affordances of the film medium in a way no one had done previously, combining and innovating various techniques, such as lighting and shadows, transitions between scenes, unconventional shots, and other innovations, that "communicate[d] and display[ed] a nonstatic view of life" ("Film Techniques").

As discussed in the previous chapter, the computer medium also possesses affordances unique to it like the sensory modalities of sound and gesture. Functionality also differs: To move a story along in a print book, one must turn pages while a screen on a computing device, however, may require a user to scroll, swipe, click, mouse over, and wave—gestures that do not apply to books. But also different is the way the computer facilitates the restructuring of information through its linking mechanism, the HYPERLINK. A HYPERTEXT, then, can be defined as "nonsequential writing, text that branches and allows choices to the readers, best read at an interactive screen." It "denotes an information medium that links verbal and nonverbal information" (Landow 4) like words and images. Borrowed from theorist Ted Nelson who coined the term in the 1960s to mean "system of interconnected writings" (Nelson), hypertexts today are ubiquitous. Every time you google a word and click on one of the choices—that is, the HYPERLINK—provided, you are engaging with a HYPERTEXT. Artists in the late 1980s experimented with this feature

of the electronic medium through pre-web hypertext authoring tools like HyperCard, Narrabase, Storyspace, and Intermedia. After the introduction of the browser, artists used hypertext mark up language (HTML) to create their works. Today much of the content we find on the World Wide Web are hypertexts.

HYPERTEXT as an authoring system provided avenues of innovation challenging to undertake in print. Most notable among them is MULTILINEARITY—that is, functionality allowing for a text to be fragmented into a series of choices that can all result in varying experiences with the story. The first commercial HYPERTEXT story in the U.S. was Michael Joyce's *afternoon: a story* (1987). Users interacting with this work are confronted with increments of texts, called lexias, that reveal a portion of the story. Each LEXIA contains a word or multiple words that are hyperlinked to another LEXIA or multiple lexias. Clicking on one of the words takes the user to another LEXIA containing more of the story. Because there are hundreds of lexias and close to a thousand hyperlinks, a complex NARRATIVE STRUCTURE emerges whereby conventional notions of EXPOSITION, RISING and FALL ACTION, CLIMAX, and RESOLUTION are disrupted, and multiple ways of reading the story are possible.

Likewise the NARRATIVE STRUCTURE of contemporary video games where user interaction drives the direction of the game play makes mapping traditional PLOT structures challenging and often useless. Games like *Limbo* (2010) where the user takes the persona of a young boy searching for his lost sister in an environment fraught with dangers. Numerous trials await the boy; each time he fails to surmount one, he dies and is forced to start his journey over. When played on a mobile device (instead of an XBox) where action occurs by touching the device's interface, the boy's death feels all the more personal: We are, in a sense, directly responsible for his death, willing participants in his demise in a seemingly open-ended PLOT.

Though he was talking about the electronic medium of the 1960s, Marshall McLuhan's famous adage, "the medium is the message" (23), is as useful now as it was then. Stories are highly impacted by the technologies we use. Computers have presented us with mediums and platforms for structuring narratives and relaying story plots that make experiencing them a differ-

ent from the way we experience print-based media.

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Activities

1. Interact with "Hobo Lobo of Hamelin," by Stevan Zivadinovic (http://hobolobo.net), and "Pied Piper of Hamelin" (http://shortstoriesshort.com/story/pied-piper-of-hamelin/), and answer the following question:

- Stevan Zivadinovic's "Hobo Lobo of Hamelin" is a retelling of the German folktale "Pied Piper of Hamelin." What is similar about these story's plots? What is different?

2. Interact with "Inanimate Alice, Episode 1" by Kate Pullinger (http://inanimatealice.com) and "I Have Said Nothing" by J. Yellowlees Douglas (available in lab), and answer the following questions:

- Identify the components of plot in "Inanimate Alice."
- What term would you use to describe the narrative structure of "I Have Said Nothing?" How is the plot revealed in this work? What would you call this approach to narrative structure?

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4

Elements of Story

The book has argued thus far that to create digital stories, we must understand theories, origins, processes, and trends. Learning the vocabulary of story is an important activity leading to the ability to talk intelligently about what you create. Chapter 4 continues that idea with a discussion of the elements of story. As in the previous chapter content is drawn from handbooks, glossaries, and other reference materials.

PLOT, CONFLICT, CHARACTER, SETTING, POINT OF VIEW, MOOD, TONE, and THEME are all elements of story. We have already covered PLOT and CONFLICT in the previous chapter. In this one we will focus on the other six.

The word CHARACTER is derived from the Greek word for *stamp*, suggesting that a CHARACTER we experience in a story carries with them particular traits that are deeply etched into their being. CHARACTER is generally defined

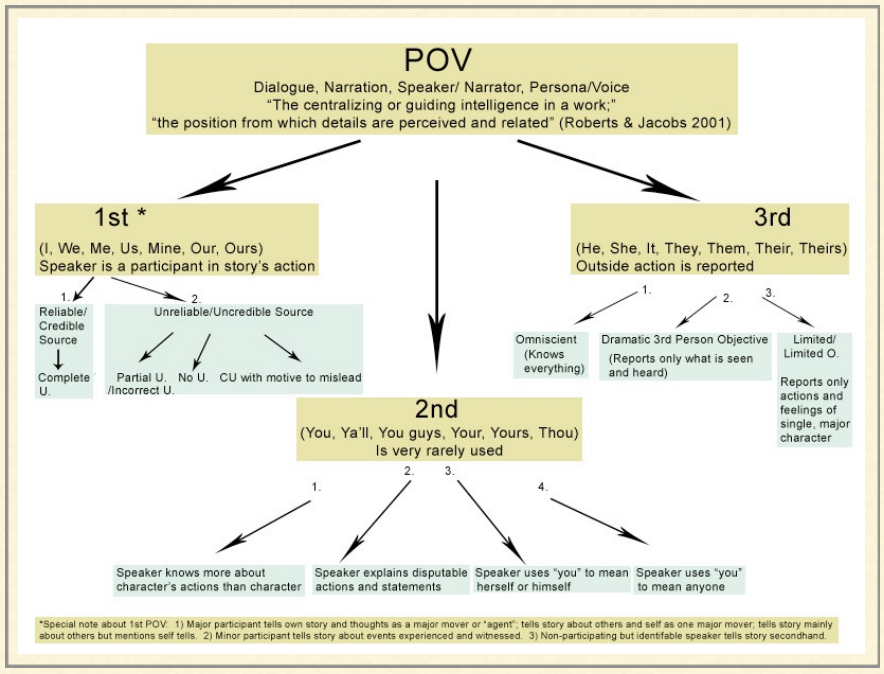
as "a fictional person in a narrative or dramatic work of literature." There are two types of CHARACTER: ROUND and FLAT, with the former a fully sculpted, three-dimensional complex person and the latter, a simple stereotype (Barton and Hudson 30-32). The protagonist in *Unravel*, though engaging to interact with during its journey across various terrains, remains a CARICATURE—though a charming one representing love, while the CHARACTER in *Her Story*, a woman being interview about a crime she may have committed, emerges as round, complicated individual through the various video clips in which she is presented. Harmon and Holman remind us that a CHARACTER need not be a person but can also be an abstract idea, a place, or a thing (Harmon and Holman 87-88). Medieval morality plays featured characters representing vices, death, youth, among other concepts. In Edgar Allen Poe's "The Fall of the House of Usher," the home of Roderick and Madeline Usher is described by the author in human terms and, so, can be viewed as one of the story's characters. In Ernest Hemingway's *The Old Man and the Sea*, the giant marlin the fisherman struggles to catch is the antagonist in the story. One final important aspect of CHARACTER to know is the notion of reliability. A RELIABLE CHARACTER is one who is trustworthy while an UNRELIABLE CHARACTER is one that the audience should not. Humbert Humbert in Vladmir Nabokov's *Lolita* has spent time in a sanitarium and has been in trouble previously for having a sexual relationship with an underaged girl. So, when he describes the brash, seductive conduct of 12-year old Lolita toward him, the audience is compelled to question the veracity of his perspective.

SETTING denotes the "time and place in which the action of a story . . . occurs" (Beckson and Ganz 255). Harmon and Holman refer to it as the "background against which action takes place." As a "geographical location" it includes "topography, scenery, and such physical arrangements as the location of the windows and doors in a room." It also refers to "the occupation and daily manner of living of the characters." Consider SETTING to imply "the general environment of the characters," including the "religious, mental, moral, social, and emotional conditions" (469-470).

The POINT OF VIEW (POV) is the "point from which a story is seem or told." There are three main points of view: 1st, 2nd, and 3rd, with finer demarcations within each. 1st person POV tells a story

from the perspective of "I," representing the story's main character. This POV infuses a story with the sense of intimacy and immediacy. It allows us to see the story unfolding through this character's eyes and so to develop a feeling of closeness to them and experience the action firsthand along with them. It is these qualities that make 1st shooter games so immersive and immediate and gives rise to some of the criticism of the violence they make possible. 2nd person POV unfolds through "a single character who is used by the author is as a central observer or participant in the narrative." The character in a story told from the 2nd POV may speak directly to the audience using the term "you," as in Lorrie Moore's "How To Become a Writer." 3rd POV presents us with an OMNISCIENT observer who may be privy to characters' "inner thoughts and feelings" (Beckson and Ganz 210-211). Sometimes the 3rd POV is not completely all-knowing and instead relates a portion of the information relating to a story. In this case the 3rd POV is called "LIMITED" (Harmon and Holman 392).

MOOD refers to "atmosphere" (Beckson and Ganz 20). Harmon and Holman describe is as "the emotional-intellectual attitude of the author [re: artist] toward the subject" (321). The forbidding, desolate settings as well as the rough scrabble life of the characters of the film, *Rogue One*, present the audience with a dark mood. Indeed, the mood fits *Star Wars* storyworld where the Empire is bent on wiping out citizens who reject the its fascist politics.



TONE is best understood as "attitude"—that is, the "author's relationship to [the] material or to [the] audience" (Beckson and Ganz 282). Think of it as TONE of voice, the way the artist talks about the characters and other elements and/or to the audience itself. When talking about a story's TONE, we use descriptors like angry, sarcastic, kindly, warm, and the like.

The "central idea" of a story is its THEME (Harmon and Holman 508). Barton and Hudson refer to is as "any significant, recurring, or developed idea, concept, or argument in a work of literature" (195-196). There may be several themes in one story and even sub-themes. Generally, THEME is expressed as one word or a phrase. For example, the THEME of Erik Loyer's *Upgrade Soul* is fighting one's own obsolescence, while the THEME of many of the superhero stories produced by Marvel and DC is the need to combat evil.

As George Lakoff tell us, "all rational thought involves the manipulation of abstract symbols which are given meaning only via conventional correspondences with things in the external world" (xxi). In other words, we do not connect ideas to things that do not exist or that may exist in some future.

SYMBOLS, according to Harmon and Holman, are objects that represent themselves "and also stand for something else . . . . [A symbol] is an image that evokes an objective, concrete reality and prompts that reality to suggest another level of meaning" (497-8). In *The Great Gatsby*, Daisy's love is represented by the green light at the end of her house's pier. When Gatsby stares out across the water to it, he feels the peace that love can bring him. In the *Odyssey*, Penelope is Odysseus's wife, but she also represents his homeland of Ithaka, his hearth, his family, and community. Thus, a SYMBOL is an abstract idea that is represented by a concrete object.

There are many different types of symbols. A UNIVERSAL SYMBOL is one that reaches beyond one person's experience, carrying meaning for a wide "more universal" audience. Red as a symbol of danger and aggression represents one such type of symbol in Western culture. CULTURAL SYMBOLS are those that relate to a particular culture and hold little to no similar meaning in other cultures. Snakes are a positive symbol in ancient Mesopotamia representing rebirth but were reviled by their enemies, the Hebrews, who saw it as a symbol of evil. AUTHORIAL SYMBOLS are those that possess personal meaning to a particular author but hold little to no similar meaning to others—but we can relate to that experience the SYMBOL evokes in some way or recognize it easily through the body of the author's works. For Poet Hilda Doolittle (HD) the Italian city of Venice symbolizes a combination of erotic and motherly affection women can feel for others. Readers can grasp this meaning when reading her poem, *Hermetic Definition*.

Whereas a SYMBOL is an object that stands in for an idea, a METAPHOR is a literary device that is used to draw a comparison between two objects:

Symbol—object : idea
Metaphor—object : object

Harmon and Holman defines METAPHOR as "an analogy identifying one object with another and ascribing to the first object one or more of the qualities of the second" (308). Dante's physical journey to Hell, Purgatory, and Heaven in the *Commedia* represents his spiritual journey to God. It is both a literal journey and a metaphorical one.

Because Dante's *Commedia* is a metaphorical story about his journey recounted over 100 cantos and 14,233 lines of poetry, his story is considered an ALLEGORY. An ALLEGORY, therefore, is an "extended metaphor" told as a story, "represent[ing] one thing in the guise of another" (Harmon and Holman 12).

Journey—a metaphor
Commedia—an allegory

On the other hand, a FABLE is "a brief tale told to point [to] a moral. The characters are frequently animals, but people and inanimate objects are sometimes central" (Harmon and Holman 203). Aesop's fables, like "The Ant and the Grasshopper" that teaches us about the value of hard work, exemplify this type of story.

As we discussed previously in this book, a PARABLE is "an illustrative story teaching a lesson" (Harmon and Holman 363). PARABLES can be ALLEGORIES, but they generally explain, in the end, exactly what lesson the reader/listener should be learning. Generally, these lessons are moral ones. Dante does not reveal the moral of his story to us in the *Commedia*. Rather we learn about his intended meaning in a letter he wrote to his patron, Cangrande della Scala. So, the story is not a PARABLE but an ALLEGORY.

As defined by Harmon and Holman, MYTH, is "an anonymous story that presents supernatural episodes as a means of interpreting natural events" (325). This definition is a very unsatisfying one. A more complex way to think about MYTH comes from Joseph Campbell. In his book, *The Power of Myth*, he claims that,"Myth is a manifestation in symbolic images, in metaphorical images, of the energies of the organs of the body in conflict with each other. . . . A dream is a personal experience of that deep, dark ground that is the support of our conscious lives, and a myth is the society's dream. The myth is the public dream and the dream is the private myth" (39-40).

It's important to note that MYTH comes from the Greek word, *mythos*, meaning "word" or "story." A MYTH, therefore, can be seen as the story of a people. In this context, calling *Genesis* a MYTH does not mean that it is not true, but rather it means that it is a story about the origins of the Hebrew people, a story later adopted by Christians. Many MYTHS contain truth along with its more fantastic aspects. But at the heart of MYTH lies the mystical, cosmological, sociological, and pedagogical aspect of existence. We know that for all of the monsters and deities found in the *Odyssey*, the story does relay the truth of the Trojan War, which we know did indeed take place around 1250 BC, and kindles inside us even today the longing for one's home after years of battling an enemy abroad. Because MYTHS are found in all cultures, they have come to be considered an essential part of humanity. For example, Rollo May tells us that without MYTHS, society becomes dysfunctional and sick. Thus, not only do we have MYTHS but we *need* them in order to be healthy, psychologically, emotionally, spiritually, etc.

All of these terms are used in expressive media like literature, film, TV, games, and other forms. Getting of good sense of what they are and how they function in a story can provide tools that can be harnassed for creating and analyzing stories effectively.

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Activities

Experience the works, and answer the questions below:

1. Describe the character in *Her Story*, by Sam Barlow. What does she develop through the story. Is she a reliable character? Why or why not? At what point does your opinion about her shift? How does the artist accomplish this strategy?

2. What is the setting of *Böhmische Dörfer* by Alexandra Saemmer (https://prezi.com/m7lq5txsl5qz/bohmische-dorfer-english-version/). How is it described? What role does the setting take in the story? Why?

3. What is the point of view of *Stanley Parable*, by Davey Wreden? Who is speaking? What is the relationship between the speaker and the user? How does this relationship add to the story's conflict? Compare this point of view with that found in *Upgrade Soul*, by Erik Loyer. What is different? Why?

4. What is the mood of *That Dragon Cancer*, by Numinous Games. How does the mood fit the plot?

5. What is the tone of "When I Was President," by Alan Bigelow? Give examples of this tone from the story.

6. What is the theme of "With Those We Love Alive," by Porpentine (http://aliendovecote.com/uploads/twine/empress/empress.html)? How does this theme contrast with its title? How does the narrative structure add to the theme?

5

Interactivity & Multimedia

Thus far, the book has focused on many of the traditional literary aspects of a work. This chapter shifts attention to the two important features of the digital environment: interactivity and multimedia.

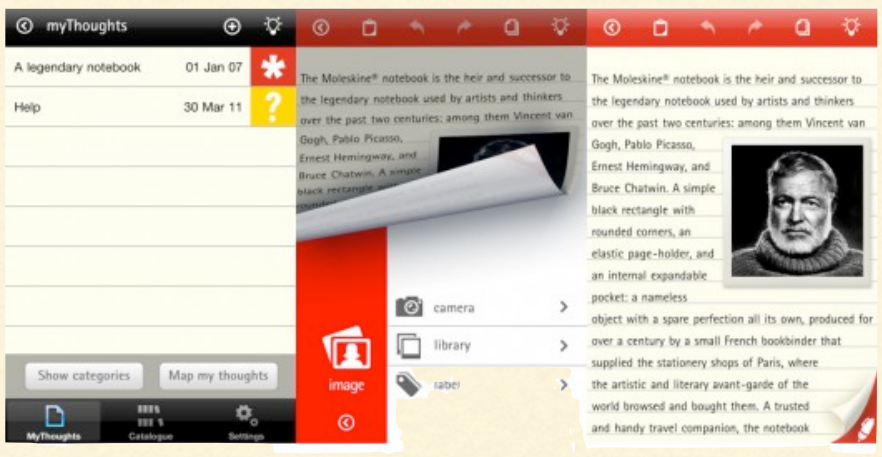
1. Interactivity

Twenty years ago, when media theorist Janet Murray argued that INTERACTIVITY was comprised of two important properties, "PROCEDURAL" and "PARTICIPATORY" (71), she could not have imagined the rise of mobile devices and social media and their impact upon digital storytelling. It is common today to click on a game in your Steam Library and have it immediately boot up to the game you selected or tap on Facebook launcher icon in the "nav bar" of your smart phone and quickly be able to comment on a Friend's post. In both cases, the developer coded the environment to allow for certain behaviors and responses that makes your AGENCY as user possible.

By PROCEDURAL Murray means the "conditions" by which behaviors take place "in response to the participant's actions," or established "properties of the objects and potential objects in the virtual world and the formulas for how they will relate to one another" (152-153). The way in which an author/artist lays out the procedures for a work impacts the user's AGENCY—that is, the degree of freedom and choice a user has, resulting in what Murray refers to "aesthetic pleasure" (128). Procedures built into a system define the level at which the user participates in a story's flow and outcome. These two properties—PROCEDURAL and PARTICIPATORY—Murray claims, comprise INTERACTIVITY, which she defines as "the codified rendering of responsive behaviors" (74). We can also describe it as *the viewer's influence and participation in a work*.

While Steve Dixon argues in his book *Digital Performance* that "all art is an interaction between the viewer and the artwork and thus all artwork is interactive in the sense that a negotiation or confrontation takes place between the beholder and the beheld" (559), we have come to accept that there are levels of INTERACTIVITY. So, rather than thinking of it as a single state, it is more productive to consider it in terms of a spectrum, ranging from a low to high level of feedback. A low level of INTERACTIVITY takes place when you as a user, viewer, reader, or interactor decides how to respond to a text and the amount of time to spend with each part.

For example, when you decide turn the page of a book or swipe the screen of a mobile device, you are engaging in a LOW level of interaction with that text.



On the other hand, when you input data that alters the text in some way, you are engaging with that text at an INTERMEDIATE level. An example would be computer generated mad-libs. There is feedback, but

it stops at the point after your initial response.

HIGH level or COMPLEX interaction takes place when your decisions affect the outcomes of a game or environment. *The Stanley Parable* with its multiple ways of navigating through the game and its many different endings represents this kind of INTERACTIVITY.

In evaluating good interaction design, Bill Moddridge tells us that we need a "CLEAR MENTAL MODEL of what we're interacting with." Leishman's "Red Riding Hood" presents readers with a familiar story that makes it possible to recognize the need to follow the path to grandma's house, while Amaranth Borsuk and Brad Bouse's "Whispering Galleries" presents the pages of a diary that signal to us the need to turn pages to access the story. *All the Delicate Duplicates* presents the interior of a house, another familiar setting; thus, when we hear the phone ringing, we can intuit its location from our own experience with our own home.

INTERACTIVITY also requires what Moddridge calls, "REASSURING FEEDBACK." When we type in the numbers, 2845, as we are told to do in one of the storylines of *The Stanley Parable*, we expect a response to our actions. Likewise, in *That Dragon, Cancer*, when we move the cursor to the child on the swing and see the symbol resembling two hands, we expect the swing to move in response to our touching the child.

NAVIGABILITY is another important component of good interaction design. Essentially, it means you "know where you are in the system, what you can do there, where you go next, and how to get back." *The Stanley Parable* plays with this notion by purposely confusing the user, but we come to realize that this confusion is an intentional part of the game play. More commonly though we expect clear directions about how to move in an environment and what objects can be interacted with while there.

Interactions must also be CONSISTENT. If you are asked to type particular arrow keys to move forward, backwards, and side to side, as we do in *That Dragon, Cancer*, then these properties of those keys must remain the same throughout the game.

Finally, good interaction design requires "INTUITIVE INTERACTION"—that is, behaviors and responses that make sense (xv-xvi). For example, in the interactive narrative, *Curlew*, users easily understand that moving side to side, raising their arms up and down, and crouching low on the performance space all result in the media changing on the screen.

Interacting with Curlew, Naples, Italy, October 2013

At the heart of interactivity lies the need, as Murray suggests, to "offer . . . the freedom of action, the sense of agency, that makes . . . engagement so pleasurable" (187).

2. Multimedia

As we discussed previously in this book, the first media was sound generating from the spoken word and music, and it relied on the sense of hearing. But it also could draw upon the senses of sight and movement. Early live performance, like Greek theatre where costumes like masks and props like cranes that lifted actors above the stage were common, provided a visual element and movement, for example, and so presented a MULTIMEDIA experience to its audiences. The rise of writing and print, however, created a paradigmatic shift, according to Marshall McLuhan, from a predominantly sonic culture to a visual one (74).

One can argue with the advent of joysticks, keyboards, VR headsets, gesture based technologies like the WII game system that we are experiencing another paradigmatic shift. MULTIMEDIA can be a combination words, images, sound, and movement—both kinetic (where objects themselves move, blink, spin, etc., on the screen) and kinesthetic (where users interact by moving in some way like tapping, clicking, swiping, mousing over, jumping, etc.)—and feature a tacility that may involve the feel of a joystick or the keys on a keyboard but just as easily can be the feel of the air as one gestures at a monitor. At the most basic level, MULTIMEDIA means many different types of media combined into one experience, environment, or work.

Working with MULTIMEDIA requires an understanding of how to combine visual, sonic, kinetic, and kinesthetic principles in some way that makes sense to the overall work. Artists also need to know how the work can look and behave in various mediums (i.e. mobile, computer, gallery or public space). They pay attention to the way the multiple media synchronize with one

another. *Limbo*, which tells the story of a boy searching in the woods for his lost sister, deftly connects the movement of our finger as we slide it across the screen in order to make the boy walk. The sound of his footsteps in the damp forest synch with the placement of each foot on the ground.

Likewise, it is important to juxtapose ideas with media objects in the story. *Lifeline* is the story of an astronaut named Taylor who survives the crash of his starship and now needs the user's assistance in order to find a way back home. The story unfolds as a real-time conversation between Taylor and the user. When the user communicates to Taylor that he should inspect the crash, the conversation taking place in the game stops and the user receives the notice that "Taylor is busy." Taylor returns to the screen only after enough time has passed that represents his trek to the ship.

As we saw in "How To Rob a Bank," which involves sound, images, and movement, the story was a linear one. The choices the user makes does not effect the unfolding of the story. But in *The Stanley Parable* where these same sensory modalities are evoked, the story is a multilinear one with up to 19 different endings.

In all cases, MULTIMEDIA works exhibit an effective mix of aesthetic choices that tap into the user's sensory modalities in such a way that the multiple media all play a role in the story's unfolding and add to the pleasure of the storytelling experience.

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Activities

Experience the works, and answer the questions below:

1. What are some of the actions are required of the user in order to experience Samantha Gorman and Danny Cannizarro's *Pry*? How do these actions fit the story, specifically the protagonist?

2. What is the ethical responsibility the user takes on when playing Playdead's *Limbo*? David Justus' *Lifeline*? What emotions do the games elicit from you, the user?

3. Describe the use of multimedia in *Pry*.

6 The Sensory Modalities

We are sensory beings, relying on input from our sense organs to discern the world around us. Artists leverage the experiences provided through our eyes, ears, skin, nose, fingers, etc. to produce works that move, excite, and immerse us. As we discussed in Chapter 2, the medium in which artists work impacts which of the sensory modalities can be harnessed to impact an audience. A story told via in print, for example, relies on your ability to see words while that same story produced in braille relies on your sense of touch; those created for digital devices may potentially trigger your sense of hearing. Thus, this chapter discusses the various sensory modalities, focusing on how we make sense of our senses.

All information taken into our body via our sensory organs is rendered into electrical pulses that fire neurons in our brain. The brain differentiates the particular sense triggered by the neurons that are fired (Carter 107). The brain itself though does not "see, hear, or feel the outside world." It simply responds to stimuli like light or sound waves (125).

Vision

When we look at an object, the object is actually viewed upside down but is inverted by the eye's retina when it receives the visual stimulus. Cells turn this information into pulses that move along the optic nerve to thalamus and on to the visual cortex of the brain where it is processed in one of six areas. It is here that we get a global idea of object by "scanning" it (V1) and also perceive its color (V4), depth

(V3), stereo vision (V2), distance (V3), motion (V5), and spatial location (V6). As Rita Carter reminds us "awareness of sighted objects is conveyed to the limbic system but is not consciously visual" (108). The limbic system is the part of the brain that triggers an emotional response to stimuli and causes us, for example, to experience an object as beautiful or shrink in horror at it. Advertisers have taken advantage of the brain's ability to perceive and respond to information subconsciously in a strategy called subliminal messaging. One of the most famous uses of subliminal messaging can be seen in the film, *The Exorcist* (1973), where the director William Friedkin inserted a horrifying image of a demon in the dream sequence that comes at 45:01 into the film (Rossen). Its addition to the scene adds to the horror of watching devils possess the young girl's body that results in her head spinning at 360 degrees and her vomitig revolting liquid onto the priest trying to help her. Fainting, nausea, and other extreme reactions were reported extensively in news reports after the film's first showing, which helped to draw large audiences to theaters to see the film.

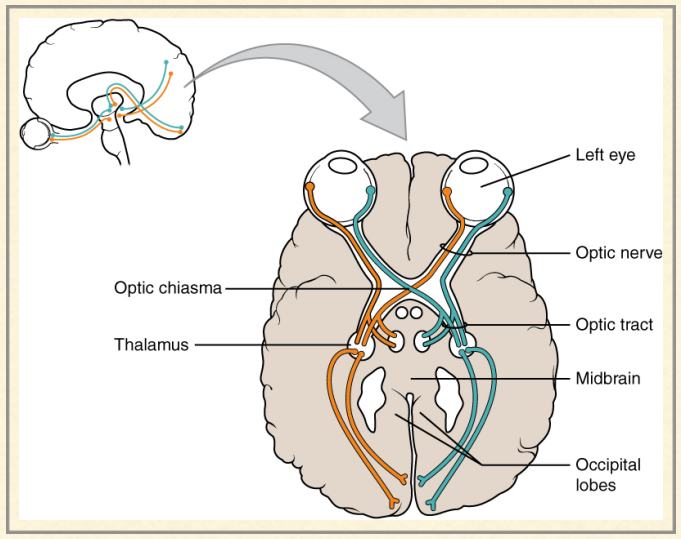


Diagram of the brain showing the thalamus, from Creative Commons, https://cnx.org/contents/FPtK1zmh@8.25:fEI3C8Ot@10/Preface.

Exorcist model from Creative Commons, Olof Werngren, 5/13/2011

Because information begins in the brain as pulses, we can perceive images without seeing them with our eyes. People who are vision impaired can be outfitted with a special device that emits "vibrating pulses" reads objects "tactilely" (112-113).

While we may experience objects differently from other people based on the way in which our brains process information, the fact is objects we view are also experienced differently because they are not "divorced from the variety of media and social contexts of their use and application" (Burnett 6). A viewer familiar with "Little

Red Riding Hood" may be able to navigate though Leishman's story to Grandma's house more facilely than someone who has not read the original fairy tale. Someone adept with social media may understand the irony of Bigelow's use of Instagram, Facebook, instant messaging, etc., in "How To Rob a Bank" in a way that those who do not spend time with these technologies may not.

Moving images, such as video, film, and animation, heightens the possibilities for interpretation. As theorist Yvonne Spielmann tells us, [v]ideo consists of signals that are kept in constant movement." These signals themselves begin "inside a camera" and other equipment and then mediated through computing devices and peripherals (1) before they reach our brains for further processing. Unlike still images, video provides ways "of structuring time, of narrating a story, of linking one's experience to the next. . . . [F]ilm can overcome its indexical nature through montage, by presenting a viewer with objects that never existed in reality" (Manovich xv-xviii). In Tiger and Squids Beyond Eyes, the landscape unfolds incrementally as Rae, the protagonist, moves through the space she perceives through her sense of hearing. Viewers watch as a bridge, flowers, a fence, and other elements come into Rae's scope and measure for them the pace of time and connection.

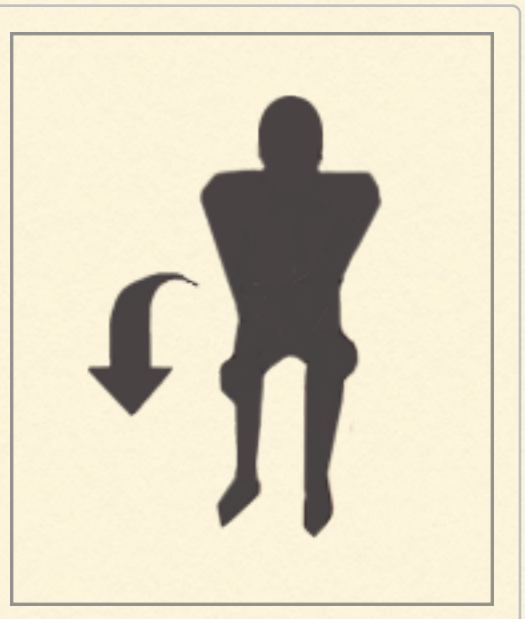
Looking back to the concept of VISION whether we are talking about seeing a still or moving images, it is interesting to note that the word comes to us originally from Old French. It denoted something seen with our imagination, a presence we experience. The truth is, the things we see are are indeed open to interpretation due to the way our bodies specifically process information and our personal experiences influence our thinking about it.

Gesture

GESTURE is non-verbal communication that involves movement of a part or parts of the body. Shaking your head, raising an eyebrow, waving your hands all carry meaning without vocalizing the point you are making. Turning the pages of a book or swiping the screen of a tablet requires movement, but these actions are examples of a GESTURE in the sense that they are communicating an idea or feeling to others. Digital technologies like the Kinect Game System, Leap Motion Controller, and Virtual Reality headsets, however, provide opportunities to design meaning to these otherwise trivial activities and so add expression to works.

It is believed that gesturing is the oldest form of communication, predating oral language. In fact, INTENTIONAL GESTURES are not limited to human beings but are evident in apes (Hooper). Those of us with domestic pets may also see our cat or dog gesturing at us when they are hungry or wanting attention though these behaviors are not categorized as intentional (Hooper).

There are types of GESTURES. DEICTIC GESTURES are those involving pointing at objects much in the way a child may point at a glass of water when they are thirsty. MOTOR GESTURES are tied to "batons and beats" and so constitute "coherence through rhythm." SYMBOLIC or EMBLEMATIC GESTURES are "highly conventional and 'lexicalized.'" Examples include shrugging one's shoulders to denote uncertainty or waving one's hand to communicate goodbye. ICONIC GESTURES are "visual representations of referential meaning," as in walking with one's arms extended to represent mowing the grass. METAPHORICAL GESTURES are "visual representation of abstract ideas and categories," like "displaying an empty palm hand may indicate 'presenting a problem'" ("Gesture").



The guide for the crouching gesture for audience members to follow when performing Curlew.

Artists can take advantage of INTENTIONAL GESTURES to add meaning to a work. For example, in Amaranth Borsuk and Brad Bouse's *Whispering Galleries*, a series of diary entries concerning a woodworker who lived and worked in Connecticut in the 1850s, users move their hands as if issuing a magic spell over a Leap Motion Controller connected to the computer in order to eliminate words of the diary. Replacing the entry is a poem that, according to the authors "seem to be written in dust or in the sand of time; the words dissolv[ing] into particles that follow [one's] fingertip's gestures" (Borsuk & Bouse). For Oculus Rift's puzzle game, *I Expect You to Die*, users don hand controllers to simulate lighting a cigar, opening a bottle of champagne, among other activities, applying the GESTURES normally required in the material world to the VR environment. Grigar and Philbrook's *Curlew*, a story about one man's conflict with the forces of nature, requires users to crouch down to the ground at the end of the story to indicate his supplication to the storm that is likely

to destroy the island he inhabits. Like oral language GESTURES are actions that ephemeral and, so, fleeting, but they carry with them lasting impressions and potentially meaningful experiences.

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Activities

1. Summarize *Beyond Eyes*.
2. How does the author of *Beyond Eyes* achieve the experience of sightlessness? What design decisions in regard to sound were made? How is vision treated in the story?
3. What is the significance of the title? What emotions are evoked when playing this game? Why?
4. How does gesture contribute to Borsuk and Bouse's *Whispering Galleries*?

7

Immersion

This chapter focuses on the notion of immersion. It introduces theories relating to remediation, most notably immediacy and hypermediacy, and explains methods artists take in producing immersive environments.

Escaping Criticism by Pere Borrell de Caso, 1874. Creative Commons

As we have learned, the human brain is always seeking new sensory experience(s) through its connections with the multiple sense organs. The eye is the dominant sense organ, and, so, we look with the eye for visual stimuli that will satisfy the desire the new. We even trick our eyes to seeing what is not really there. This is especially true with regard to our abilities to manipulate sensory input via digital media.

One way we seek new sensory experiences, especially with regard to digital technologies, is through IMMERSION, the sensation of being completely surrounded by another reality. More importantly is the enjoyment of immersion as a participatory activity. We do things in the new reality and results happen in response.The term IMMERSION is derived from Latin word *immegere*, meaning to “dip into” or

"submerge." Implicit in the origins of the word is the notion of water, of being placed in something all encompassing. This idea of being submerged and inside is reflected today in the prepositions we use for immersive environments, such as "in-world" when we discuss the experience we have when interacting in a virtual reality environment.

As suggested by Janet Murray in *Hamlet on the Holodeck*, IMMERSION is associated with two of the four "essential properties" of digital environments: SPATIAL and ENCYCLOPEDIC. The two others—procedural and participatory—you have already learned in Chapter 5 are associated with INTERACTIVITY (71). By SPATIAL we mean "a story that is also a place" (82) and that navigation of that space must provide a meaningful connection to the story. Murray argues that it is used in order to shape "a dramatic enactment of the plot" (83). In "I Expect You to Die," produced for the Oculus Rift, space is used effectively in that users find themselves trapped in a car inside a plane. The movement, though limited, is felt to be real with all of the elements of the car's interior available for exploration and the feeling of confinement enhanced by the closed windows of the car and door of the plane.

By ENCYCLOPEDIC, we mean an "endless expansion [of] possibilities within the fictional world" and the ability for stories to "twine around and through the nonfictional documents of real life and make the borders of the fictional universe seem limitless" (87). We experience this concept with works like Aaron Reed and Jacob Garbe's *Ice-Bound*, where the digital and physical come together via augmented reality technology and expands the story experience.

Ice-Bound by Aaron Reed and Jacob Garbe

But we can also describe the experience of IMMERSION as one in which the interface "natural" (23) and the medium "disappear" (21), tendencies associated with what Jay David Bolter and Richard Grusin call "IMMEDIACY" (5). Essentially IMMEDIACY is "a style of representation whose goal is to make the viewer forget the presence of the medium (canvas, photographic film, cinema, and so on) and believe that [they are] in the presence of the objects of representation" (272-273). IMMEDIACY implies that it feels *immediate*—that is, live

and up-to-date. It feels like you are there. Stated another way, IMMEDIACY or *TRANSPARENT* IMMEDIACY is abou the idea, feeling, and impression that we are experiencing an authentic experienc without the intervention of any intermediate media.

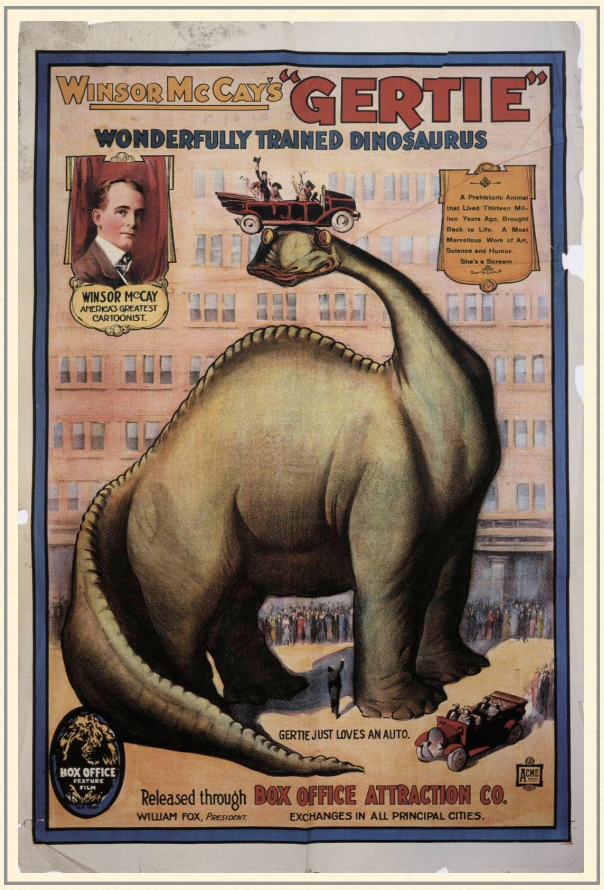
IMMERSION is achieved by creating a graphic space that is continuous and full of objects and fills the viewer's field of vision without rupture (Bolter and Grusin 191). Bolter and Grusin point out that virtual reality is “the clearest (most transparent!) example of the logic of transparent immediacy” (161).

Immersion is not a new phenomenon. It occurs whenever we are made to feel the sense of IMMEDIACY and liveness. Watching a film, reading a book, and other activities that cause the outside world to fall away and engage us deeply as if inside an experience can constitute an immersive environment. Before the introduction of the electronic medium like film, radio, television and the internet, reading served as the dominant method for experiencing immersion. It provided a portal into another world of experiences and senses and beliefs and actions. More importantly, reading provides a level of intimacy with a medium unmatched other media (Howe ix-x). For example, readers dwell, meditate; they control pace and tone; they control interaction; and they achieve intimacy with medium. While it is still early in the development of digital storytelling environments that combine a reading experience with multimedia in an immersive environment, such environments hold great potential of providing deep and rich immersive experiences.

The trance of IMMERSION is fragile, and all narrative art forms have developed conventions and boundaries to sustain it, to assure the audience that is only virtual. For example, in theater the "fourth wall" has been employed to make clear the separation between the actors on stage and the audience. It was a separation not to be acknowledged, or broken. *The Stanley Parable* purposely breaks the illusion of the fourth wall and so disrupts IMMERSION when the narrator addresses the user directly about choices they make in the game. In effect, breaking the fourth wall exemplifies what Bolter and Grusin call “HYPERMEDIACY.” While they talk about HYPERMEDIACY in terms of visual representation, we can also apply it to other components of digital media like sound and interaction because at the heart of the concept lies the goal “to remind the viewer of the medium” (272). They tell us that HYPERMEDIACY and IMMEDIACY are “twin logics” of REMEDIATION—that is, the

tendency of "new media" to "refashion prior media forms" (273)—and are "mutually dependent [upon one another]" (6).

One of the challenges with developing IMMERSIVE digital stories is creating a seamless experience *into* the fictional world without disrupting it. It requires us to find the digital border and define the boundary conventions that will allow us to surrender to the virtual representational environment. Part of the early work in any medium is to explore the borders between the representational, virtual world, and the real. One method is to portray the characters as the same on both sides of the boundary. Ozzie and Harriet, and sons David and Ricky, were portrayed as individuals whose television lives were the same as their actual lives. Winsor McCay worked at the very beginning of film animation, in 1914, with his animated dinosaur, Gertie, who worked beside McCay on a giant film screen. McCay would coax Gertie out of her cave, and then get her to perform tricks. At the end of the performance, McCay would appear beside Gertie, who would lift him to her back and then walk gracefully off screen.



Winson McCay and Gertie the Dinosaur

With the KaegiPharmacyVR project, the virtual reality environment was envisioned as a reaction of the original pharmacy located in Wilsonville, OR that had been moved and reconstructed inside of the Museum of the Oregon Territory. Amid the original artifacts of the pharmacy, users sit at a desk that is filled with items that may have been found on the pharmacists desk—writing pad, medicine boxes—and slip on the VR headset to experience the pharmacy as it was in operation circa 1910. To ease users into the virtual space and provide guidance for interacting with virtual objects, the creators of the project produced a brief experiential tutorial. This intermediate space exhibits graphical and sonic elements representing the early Nine-

teenth Century, like an old desk and music. After the tutorial ends, the user enter into Kaegi Pharmacy and takes the personae of a pharmacist, engaging in tasks typical for the period: compounding medicine for customers, sorting medications, weighing components for making remedies.

The general wisdom was that an IMMERSIVE environment requires the suspension of disbelief—that is, a willingness to overlook the limitations of a medium so that these do not interfere with the illusion. It was predicated on the idea that users agree to suspend judgment in exchange for some promise, whether it be entertainment and an educational experience. However, with digital technologies, we possess tools to create an IMMERSIVE fictional, narrative world where we do not have to suspend belief, but rather actively create it, to reinforce rather than question the reality of an IMMERSIVE experience. What could only be instantiated through verbal language can now be provided as a multisensory experience that is both INTERACTIVE and IMMERSIVE.

Digital technologies are providing us with a stage on which to envision the creation of a participatory narrative realm. Through the constant negotiation of the story line and the participatory boundaries between the consensual hallucination of the virtual world and the physical world, we are learning how to enact authentic contexts even when we know neither the actors nor the experiences are real. Through networked computer technology we are becoming interactors in a worldwide participatory theater where we assume complex roles and explore the enchantment of IMMERSION.

References

Bolter, Jay David and Richard Grusin. *Remediation: Understanding New Media*. Cambridge, MA: The MIT Press, 2000.

Murray, Janet. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. NY, NY: The Free Press, 1999.

Activities

1. Can mobile apps like "Ice-Bound," by Aaron Reed and Jacob Garbe create an immersive environment? Does the fact that this work is accompanied by a print based text that provides an augmented reality experience enhance or detract from immersion?

2. Looking back on any of the works you have experienced in the course, can you identify one that was immersive? Which one and why? Which work was the least immersive, and why?

8 About

Dene Grigar is Professor and Director of The Creative Media & Digital Culture Program at Washington State University Vancouver whose research focuses on the creation, curation, preservation, and criticism of Electronic Literature, specifically building multimedial environments and experiences for live performance, installations, and curated spaces; desktop computers; and mobile media devices. She has authored 14 media works such as “Curlew” (2014), “A Villager’s Tale” (2011), the “24-Hour Micro E-Lit Project” (2009), “When Ghosts Will Die” (2008), and “Fallow Field: A Story in Two Parts" (2005), as well as 52 scholarly articles. She also curates exhibits of electronic literature and media art, mounting shows at the Library of Congress and for the Symposium on Electronic Art (ISEA) and the Modern Language Association (MLA), among other venues. With Stuart Moulthrop (U of Wisconsin Milwaukee) she is the recipient of a 2013 NEH Start Up grant to support the digital preservation of early electronic literature, a project that culminated in an open-source, multimedia book entitled *Pathfinders* and book of media art criticism, entitled *Traversals*, for

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