

NYU Gallatin School of Individualized Study
Research Essay

Foundations of Narrative

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INTRODUCTION: A HISTORY OF NARRATIVE INQUIRY

I define narrative as the natural structural process by which reality is visualized, assessed, and understood. Or as Oxford defines it, narrative is “*the spoken or written account of something.*”ⁱ I extend this definition to include *composed, danced*, and so on. The recorded study of narrative patterns and practices is extent today in many languages, but in every case can be summed up by the following statement: meaning emerges through the staging and representation of reality through abstract means. These may include movement, sounds, shapes, colors, and so on. In literature, we study how fictional stories, set within particular times and settings, represent views of reality and communicate information. In anthropology, we understand human communication by studying human symbols and cultural practices, which at times cannot be distinguished from sacred relics, depictions, and emergent behaviors. Narrative experiences, likewise, often take place within literal or figurative sacred spaces—ecosystems that are organized to enhance and provide opportunities for human ritual, which contemporary anthropologists liken to transformative and developmental experiences. These spaces include (among others) theaters, temples, churches, libraries, civic centers, shrines, and graveyards. But there are others, today, that result from our use of technology to partition us from outside attention—noise-cancelling headphones, earbuds, and oversized hats. The word “earmuffs” comes to mind when, in the morning commute, a man shuffles past without regard for his surroundings because he is knee-deep in his favorite audiobook or podcast. This, too, is a sort of sacred space—we recognize—that wasn’t possible before the age of intelligent systems.

INTELLIGENT SYSTEMS, THE USER, & THE MASS-MEDIA

Every day, we interact with intelligent systems—Internet-connected devices that can gather and analyze information, track our movements, sense nearby objects, and communicate with other connected systems around the world. At the time of writing this, these systems for the most part take the form of portable devices that offer relatively ubiquitous use value. And while we still can’t see into the future, the predictive capabilities of these devices, among their other resources, has led us to dub them *smart*. At speeds that would have been unimaginable just a half century ago, they are constantly learning from our environments and altering their behaviors in response to our own. That they could be said to have *behaviors* at all should be striking, but perhaps most surprising is the ease with which we have accepted this reality, such that we now use intelligent systems to outsource and automate many of our responsibilities both personal and professional. They are designed, retailed, and wirelessly maintained to serve our every need and desire, managing everything from our exercise and eating habits to everyday tasks like dog walking, bill paying, and even locating romantic partners from within our wider social networks. When we say that the world is getting bigger every day, it is to this exponential increase in individual reach that we are referring.

While we acknowledge, for the most part, a sort of servitude to these systems,^[9] we would never give them up. Intelligent systems make life easier, at least in theory. And in exchange for our attention, our information (Fig. 3),^[10] and our dependence, they offer access to virtual experiences that we could never have in the physical world, allowing us new ways of interacting with each other and our environments, and enabling us to artificially master skills with the push of a button, the swipe of a finger, or the input of a credit card number. Far from being secondary to our experience of the world, for many of us, intelligent systems have become the primary means through which we gather information about our environments and about each other—circumnavigating the relevance of the 24-hour day-night cycle in exchange for a system that provides us with the agency to probe *the world* for answers, whenever and wherever we may be. It is becoming increasingly important to understand not only how these systems function, but by what principles they are designed, how we interface with them, and how we can use them, as Jim Gee says, “to speak to the world.” We are no longer viewers, readers, or listeners. We are users. And users have a different set of expectations altogether.

The user is constantly seeking services to automate and manage the requirements of his life, providing him with the time to experience and accomplish more. His attention can be divided between experiences so seamlessly that he is convinced he is fully attending to each, believing that he himself has gained the ability to download data at the speeds of which his connected devices are capable. Likewise, since he is observing the world through an intelligent system designed to both hold and summon his attention at a moment’s notice, he is likely to stop experiences half-way, having stumbled upon another experience that appeals to any of a growing series of needs, desires, or instincts. In his daily life, his mind is likely to wander. Stimuli in the world remind him of sounds and images that are still fresh in his memory—a YouTube video, a gif, a Netflix show. All the while, convincing himself that his capacity for attention has been expanded beyond the realm of human limitation, he is actually experiencing less, at least insofar as his experiences are more regularly surface-deep—taking place alongside any number of other surface-deep activities that vie for our full attention. In short: designing a narrative experience for a user of an intelligent system is fairly unlike designing one for a reliable individual who can be trusted to engage with your story *because* your story is engaging with him.

The first issue is one of Longtail, a concept, coined by *Wired* Editor-in-Chief Chris Anderson,ⁱⁱ that describes the growing difficulty with which newly released media products find audiences. The world at-large is now endlessly and immediately searchable. The intelligent systems on which we rely also serve to filter through massive troves of stories and experiences to locate those that they believe—based on real-time observations of our behavior—are most relevant to our interests. When a new media product “hits the shelves,” it does so in a digital ecosystem that overlooks its artistic and academic merits in favor of its networks—its authors, publishers, and distributors.

For authors of new *content*—a word that has replaced *stories* where we are no longer immediately clear whether we are talking about an article, a novel, a video blog, or a podcast—the issue of long-tail is disastrous. How do we make our stories findable for users? How do we grab users’ attention when we are competing with a global network of experiences custom-built to suit the needs to the user? We are now inundated with stories in every form, on every device, and at every moment of our lives—from the origin story on the back of the cereal box to the sound of a neighbor listening to her morning podcast. The ones we engage with are likely to be those that catch our attention. But as every storyteller knows, the loudest story isn’t by any necessity the most worth-

while; often, it's actually mundane or trying to sell us something. This raises a series of questions that I will address in my thesis: How do we draw and maintain an audience's increasingly limited focus without diluting the meaning and value of our work with one-off content that shocks, horrifies, or appeals to our audiences sexually? If we write our stories with this content in mind—and thus make it *necessary* to the story itself—then what about those stories that *don't* require such themes or devices?

A second yet connected issue, or opportunity, is platform. “Cross-platform” has become the name of the game. If your story can't be experienced on any device, on any platform, at any time of day, from any location, your audience may be considered “limited,” at least by market standards. Facts like this give rise to our anxiety surrounding missed opportunities: if you aren't tapped into every market, your narrative product isn't selling as well as it could. And when it's difficult to find audiences in the first place, what factors are considered in deciding which platform, or platforms, to use? When we engage with stories today, we increasingly do so through intelligent systems, which not only serve to distribute stories, but modify and curate their content, make prominent those stories that the system in question has analyzed to be of utmost interest to the user. When considering the platform of one's narrative, one must also consider its form—whether it is a game, an app for mobile devices, or a video blog—and the exact demographics, or “user base,” of each intelligent system.

A third and major point is the evolving landscape of user's expectations of narrative experiences to appeal to our tactile, auditory, and other senses, which requires an understanding of narrative that goes beyond dramatic structure and into the realm of *computer culture* and the application of technologies serving as narrative modalities. While there are many other issues we could examine here, I believe these three (user access, device platform, user expectation) constitute as a core ground for further research into the phenomenon of interactive narratives within intelligent system frameworks.

As a necessary component to intelligent system studies, I use Luhmann's definition of the mass-media as “[including] all those institutions of society which make use of copying technologies to disseminate communication.” I however leave out a central assumption of Luhmann's (that “whatever we know about our society, or indeed about the world in which we live, we know through the mass media”), since this is true only in extreme cases. It is *nearly* true, however, in that what we know about society is indeed governed by how the world at-large is portrayed in replicated forms, and may become more true over time—as more that we know is governed by mass-replicated narrative systems.

INTERFACES

Defining Narrative Interfaces

The best way of seeing whether something is a narrative interface is to ask it: *Can you tell a story?* If the answer is *Yes*, it's a narrative interface. If the answer is *No*, you should ask it again later and see if it answers differently. Someone has probably looked through the window at a gorgeous sunset and noticed a picture framed within a slanted water glass that is more alluring.

Do this with the objects in the room you're in now. You may start with desk items, beverages, or furnishings. Wherever this experiment takes you, you may find that there are more narrative interfaces around than you had previously classified.

Computers, Monitors, and Mobile Narratives

The first personal computers had no backgrounds, windows, or system updates. They had just one screen—black—with a blinking, green cursor that required of its user a proficiency to engage in “computer speak,” a language called Basic that has since become obsolescent many times over. These machines had no CD drives, no Internet capability, and were operated with a keyboard alone, so they weren't exactly built for sharing information between people or other systems. They had a singular market consisting of hobbyists and tech enthusiasts interested in the evolving potentials of digitization. While introduced decades earlier during the Industrial Revolution, *digital* automation by any replicable and scalable means was still years away. But already we had figured out that if we told these computers how to perform a mathematical or semantic operation, they could do so a thousand times faster than we ever could. (Teach a man to fish and he'll be fed his whole life; teach a computer to fish and you'll empty the ocean within a year). The first users of personal computers were just playing around, or “button-mashing,” as today's gamers might say, but what they discovered during these hours of playtime would erupt our perceptions of the individual, his workspace, and his applicable abilities. They discovered software—which has in less than a century usurped the dominance of engineering in industry; of storefronts in retail; of physical applications in employment;^[1] of phone and postal services in private communications; and of pen and paper as our primary resource for creating and sharing stories.

Narrative has a way of both reflecting and shaping our environments. Not only can almost anything we see, hear, think, feel, or do be expressed in narrative terms—*action, reaction, resolution*—but the exact shape of these narratives is itself a reflection of our status as a connected, higher species. While other animals possess narrative capacities,^[2] none rival our ability to analyze, shape, and reshape their environments to reflect our own needs, desires, and imaginations. The narrative of whom and what we are is constantly changing in response to evolutions in science, technology, engineering, art, and mechanics (STEAM). We could call our identities a kind of shared, internal revolution,^[3] a never-ending uprising in response to forces in the world that we seek to diminish, strengthen, or harness for personal or collective use. The narratives of whom and what we are—the stories we share about ourselves and each other, the forms they take, and the narrativized perceptions that govern our understanding of our environments—arise as instinctive human traits that cannot be separated from the individual experience of identity.

While software hasn't changed the definition of what constitutes a narrative, the complexity with which we can craft targeted, scalable, and almost organically responsive stories today is changing exponentially in response to a layering of digital languages that allow us to deliver commands directly to the story artifact—the object with which we engage while experiencing a narrative. Our global economy has shifted from one that relies on manufacturing and industrial goods to one that, above any physical resource, values information, services, and human

attention.^[4] That these are each shared, waylaid, and manipulated through narrative is not at all a new concept. But with narratives becoming increasingly manipulative in their modes of delivery (made possible by widespread developments in our understanding of human motivation, drive, and perception)—increasingly subtle in their context and construct, and with individual narratives capable of reaching further, faster—it is imperative that we reassess our relationship with stories, story worlds, and story objects. Is the ability to share stories through global, digital, and immediate means bringing us closer together, or is it taking us further apart? Who has access to these technologies? And who doesn't? What does using a digital interface to generate and deliver stories do to the stories themselves? What does it do to us?

We may have access to planes, trains, and automobiles, but for the most part, we are still domestic creatures that are likely to choose comfort and familiarity over the uncertainty of unknown terrains. The autonomy and anonymity of the Internet changes that, allowing us to access stories from around the world in ways that are not only immediately accessible, but easily experienced in a range of languages or visual display formats.^[5] Increasingly, we are coming to understand—or to at least view—the experiences of others whom we might never actually meet in the physical world, and we naturally process, frame, and share these through narrative means. A qualitative overhaul of our spaces, from public and private to physical and virtual, has almost certainly affected us in ways that we couldn't have foreseen, and in ways that we won't capably understand perhaps for several generations to come. Where and when do we experience each other? Where and when do we experience ourselves? These and other foundations of what make up our realities, or certainly our understanding of “the world” and who we are within it, are changing. And at the center of these revolutions are the evolving uses, values, and design principles of narrative experiences—from physical to digital, public to private, and static to interactive.

Transnarratives and Interfaces

Interface defines interaction. In a way, an interface is really just a set of rules that limit what the user can or can't do. A book, a computer, and a concert hall are all interfaces. An instrument is an interface as much as a pair of headphones is an interface, because they allow users to create, and access, narrative experiences. When you're on the receiving-end of a narrative experience, if you look closely enough, you'll always be able to find the markers of the pen that wrote it. In Jean-Donimique Bauby's case, this concept was taken to the possible extreme, making his story a prime example of this.

When Jean-Dominique Bauby wrote *The Diving Bell and the Butterfly*, he did so without use of his hands or mouth. Following a massive stroke, the then-editor of *Vanity Fair*, and one of France's most notable pop figures, had entered into Locked-In Syndrome. Every case is different, but in his, it meant that he could no longer move in any way, with any part of his body, except for his left eye lid.

Bauby, who was a celebrated writer before his stroke, had entered a new stage of his life—one that he felt consigned him to loneliness, boredom, and listlessness. Against all odds, Bauby and writer Claude Mendibil were able to develop a method for him to communicate through eye

blinks, which he could control as well as he ever could his writing hand. Perhaps it is thus so notable that Bauby's story was among the first modern transnarratives—stories that exist in multiple formats, and therefore exist centrally in mind, rather than in external artifact. In Bauby's case, this narrative, *The Diving Bell and the Butterfly*, began as a chart-topping memoir transcribed by Mendibil, and was later turned into a feature-length film, which also received global acclaim. Renowned psychologist and cognitive theorist Oliver Sacks (*The Man Who Mistook His Wife For A Hat*), who has published many essays on cases such as Bauby's, called the book "a testament to the freedom and vitality and delight of the human mind," which is not only representative of the story's origin, but by the interface that produced it. For eye blinks to work, for any of this to work, Bauby and Mendibil had to think outside of the box. Bauby, who could express himself in no other way, used blinks as a means to express his story, and his story itself, accordingly, compensated by becoming hyper-expressive in its visualizations.

I am fond of my alphabet letters. At night, when it is a little too dark and the only sign of life is the small red spot in the center of the television screen, vowels and consonants dance for me to a Charles Trenet tune: "Dear Venice, sweet Venice, I'll always remember you..." Hand in hand, the letters cross the room, whirl around the bed, sweep past the window, wriggle across the wall, swoop to the door, and return to begin again.

ESARINTULOMDPCFB

VHGJQZYXKW

The jumbled appearance of my chorus line stems not from chance but from cunning calculation. More than an alphabet, it is a hit parade in which each letter is placed according to the frequency of its use in the French language. That is why E dances proudly out in front, while W labors to hold on to last place. B resents being pushed back next to X, and haughty J—which begins so many sentences in French—is amazed to find itself so near to the rear of the pack. Roly-poly G is annoyed to have to trade places with H, while T and U, the tender components of tu, rejoice that they have not been separated. All this reshuffling has a purpose: to make it easier for those who wish to communicate with me (20)

In a state of physical inaction, Bauby found a freeing of his imagination. But why was this the case? I shamefully recall, in the Jurassic Park film series, a chaos theoretician played by David Goldbloom, famously saying that "Life will find a way". Expression will find a way. Imagination will find a way. Narrative will find a way.

Narrative Design--which I view as a field of narratology, another being literary theory--observes how narrative systems are ordered, arranged, and framed in order to elicit heightened meaning.¹ *Design* here refers both to a story's *structure* and its *mood* (roughly, perhaps, its *syntax* and its *diction*, loosely speaking), carrying universal meaning for users of all kinds, but especially as relating to visual or aesthetic systems and contexts. Today, design is viewed globally as a user-centered experience, with *UX Design* standing for User Experience Design, and representing a field of occupations that apply universal design concepts to user experiences, as one might imagine. Although much of what we consider to be the "packaging" of artistic and narrative content more broadly can be considered a type of UX Design. An art curator curates the gallery patron's viewing experience, after all, and not the artwork itself. In more practical terms, all artists, narrative practitioners, and product developers are specialists in distinct design fields, themselves belonging to a larger family of conceptual practices and viewpoints that singularly embody our understanding of the word design. You could even say that design is the very opposite of *deliberately making something difficult*. (p.255, Norman).

Instagram's core UX Design architect, Ian Spalter, calls design "[that which] helps users to complete tasks." Design guru Don Norman, speaking on the design of machines, describes design as "[that which] is concerned with how things work, how they are controlled, and the nature of the interaction between people and technology." Although his more specific definition of general design is almost identical (see below). I view design, in narrative contexts, as the unspoken direction that helps users to frame situations and act accordingly. In a video game, this seems easy enough to conceptualize. In literature, design can be viewed as the aesthetic decisions made by authors--the rhythm, beat, and cadence of language, which embellishes and gives life to the mechanical, literal meanings of words.

¹ *In linguistics, one-to-one, or "exact" translations are almost never possible, nor do I believe they are possible in any other narrative system. This is because meaning derives from an interplay of symbols whose values are learned over time and are culturally dependent. Understanding each other's unique languages, which represent ways of thinking about and observing the world around us, help us to understand one another more deeply. But while this has been an accepted fact in psychology and the social sciences, it has never been applied to narrative systems more quantitatively. Narrative systems, after all, are languages themselves, communicating through a complex interplay of symbols, and through their expression, framing, and interfacing, communicate. For my research, I have used Abbott's basic definition of adaptation as creative destruction: "If the creative leeway between script and performance is wide in the production of plays, it is enormous when adaptation crosses media boundaries. This is necessarily the case. Reviewers who complain that a film or play is a poor "translation" of the original may miss the fact that adaptation across media is not translation in anything but the loosest sense. In fact, it can sometimes be the attempt to make a strict translation that winds up in failure" (112).*

We benefit from being able to discuss design as a literary concept for several reasons. First, design is an emotive context that overlays literal language, making it useful to remove if, for instance, one is seeking to understand the literal (rather than suggested, or implied) meaning of written or recorded words. Second, design is a fundamental concept of visual thinking, and all stories--whether they manifest as innately visual--communicate visually insofar as reality is almost universally can be understood in visual terms, and stories are in the business of communicating aspects of reality.

Robert Frost's simple design decision to characterize the forest as "a yellow wood" created from it a character possessing unique personality. The diction elicits a feeling of steady swaying, its syntax a calm and stable structure in which to understand the story in regularly paced nine-syllable lines. The poem is divided into three independent clauses. The baseline syllabic format for a line in this poem is 9, as mentioned, with couplets of 10-8 and 8-10 syllable lines both ending and beginning what in theater we would call *beats*, but in poetry we might call *units of meaning*. The poem ends with a sort of breathlessness; we leave our comfortable 9-syllable rhythm for two quick, jaunty lines--which although brief, carry us back to our peaceful, regular, and stable 9-syllable format by reminding us of the yellow wood from the opening line.

All of this, I argue, *is design context*. To use an analogy that should probably be explained further, the literal words of the poem are its HTML (the bare-bones structure, the content, literal meaning of words) and the rhythm and shape of the poem are its Java Script (they are what give the poem *its look and feel*; they modify and give color to the literal words, or the HTML). To describe this perhaps more clearly: every word carries with it exact meaning and context. When you put words together, that context becomes more clear. When you *design* those words--give them rhythm, cadence, and frame them with respect to their overall shape--they gain *additional* meaning that may heighten, clarify, or even complicate the literal meaning of the words involved.

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<i>Line</i>	<i>Syllables</i>	<i>Delta (Δ)</i>
Two roads diverged in a yellow wood,	9	+/- 0
And sorry I could not travel both	9	+/- 0
And be one traveler, long I stood	9	+/- 0
And looked down one as far as I could	9	+/- 0
To where it bent in the undergrowth;	9	+/- 0
Then took the other, as just as fair,	9	+/- 0
And having perhaps the better claim,	9	+/- 0
Because it was grassy and wanted wear;	10	+2
Though as for that the passing there	8	-2
Had worn them really about the same,	9	+1
And both that morning equally lay	9	+/- 0
In leaves no step had trodden black.	8	-1
Oh, I kept the first for another day!	10	+2
Yet knowing how way leads on to way,	9	-1
I doubted if I should ever come back.	10	+1
I shall be telling this with a sigh	9	-1
Somewhere ages and ages hence:	8	-1
Two roads diverged in a wood, and I—	9	+1
I took the one less traveled by,	8	-1
And that has made all the difference.	8	+/- 0

There are hundreds of defined, operational design processes that can't be touched upon in this thesis, but I feel it necessary here to recommend future research on design processes in narratives of all sorts. Suffice to say, the design process is overall viewed and practiced as one relying on an interplay between action and reaction, doing and receiving. Some UX designers play the role of design communicators, depending on the project, and are tasked primarily with the narrative of the design; others may focus on its visual reception, mechanical processes, or functional operations. Early research into human-computer interaction focused overwhelmingly on design. Jef Raskin, who pioneered the early computer mouse and invented the "click-and-drag" gesture that has become so essential to our daily digital interactions, used design

processes to understand how humans would intuitively seek to interact with a complex computer system.

This brings up another curious aspect of design: it is all about human factors. What does it mean for humans and computers to interact? What does it mean for humans to interact with pieces of paper, which are themselves made of ground, compounded, and sliced tree pulp? Design helps users to mitigate and navigate their expectations of interaction. A printed book, for example, provides no pretext, or suggestion, that it might let users send emails, pick up groceries, or call doctor's offices. A payphone, on the other hand, is designed to suggest, at a distance, a purported purpose and interaction capability.

One of the greatest hurdles of design is, indeed, that what users expect of different everyday objects is changing rapidly. We increasingly expect to be able to do distinct, often *disparate* activities with a single interface or object in the real world.

DESIGN & FRAMING

In early 2019, Google declared that its annual UX Design Rankings for websites worldwide would now focus on mobile experiences over desktop experiences. This news, for most, is fairly irrelevant as far as news goes. But the implications of this simple adjustment in framing user experiences is anything but. Digital experiences, which a decade ago were almost all experienced in landscape formats--computer monitors, TV screens--are now experienced predominantly *in portrait*--which more and more, I view as an *on-the-go* orientation. But what does this simple design decision mean for narrative content itself? When we say that something is designed well, we mean that it has been framed in such a way that we intuitively understand what it is and what we can do with it. So what can we do with vertical interfaces that we can't do, or would be less effective at doing, with landscape ones?

In documenting and cross-referencing narrative interfaces and frames across media forms, I have encountered three master frames, although "in nature" you will more commonly find only two of them--*portrait* and *landscape*--the other being *square*. There are, of course, non-rectangular frames all over the place. But when it comes to narrative content, rectangles rule supreme. It perhaps has most to do with the practicality of storing static narrative artifacts. Stacking, arranging side-by-side, or in uniform storage--these are all jobs for rectangular objects. It's after all how our buildings (the parts we live in, not the *rooftops* and *archways*) are made of. Triangular space appears to be best suited either as a foundation (in bridges and so forth) or as a culmination or peak, such as with building rooftops from cultures worldwide.

Frames are universal and can take any shape, although they are most commonly rectangular. Paper can be cut to any dimensions and in order to frame narrative content within certain restrictions (space), for example. A stage can be built to accommodate any size audience, and indeed one already has ("the world is but a stage"). Frames of different sizes mean different things. A DVD box is framed in such a way that we, the users, understand what's inside--which

for one thing couldn't possible *be larger* than it's container, and is most likely the DVD disk that is touted, through design and narrative contextualization, all around the case itself.

Yet something has bugged me about DVD cases for a while. Why are the cases shaped vertically--like a piece of printer paper, or a portrait painting--rather than as squares? The product contained within the DVD case is, after all, circular. So one must assume, as I do, that the case is itself a product that someone is monetizing--probably the DVD case manufacturers, who understand that they can sell more DVDs with more advertising space--more surface area--and that they might even be able to package booklets and "extra special content" inside the cases by using a portrait orientation for their case design. That much, at least, makes sense. But why portrait orientation and not, say, landscape? Or why not an even bigger square-shaped case? Surely, this would provide even more space for publishers and content creators to provide potential buyers (users) with new and more effective calls to action.

How much actual space a frame takes up (6x9", 11"x17", etc.) appears to result from two factors: (1) the space required to adequately, appropriately, or ideally represent the visual media itself; and (2) the space around which the frame is intended to be placed. White space around the media is negotiated artistically (the artist determines what impact he wishes, and acts thusly), and arguments could be made for the white space around a framed photograph, for example, to truly belong to either the frame or the photo. The white space in this case frames the image in a way similar to the actual photo frame, for one. And yet its purpose is to modify the appearance and impact of the photo itself, rather than the frame. Either way, the frame cannot be separated from the architecture of its form, be it beveled or straight-on, pear-shaped or rectangular. Ultimately, the shape of a frame has much to do with the content practically, but this understanding alone leaves much to be desired. More research should be conducted on the relationship between narrative framing techniques more diversely.

As I discovered in researching narrative media sizes and orientations, children's picture books are almost always landscape orientation. I draw from this that the image, and the progression of image content, is more important to the narrative artifact than its textual content--which will typically be read by an adult, whereas the child must be able to parse meaning from any combination of pictures, text, spoken word, and vocal tone. In other words, landscape gives an idea of the big picture--the landscape, if you will--whereas the portrait orientation appears, here at least, to be better suited to more focused, individual examination, such as *text* is ideally suited. Perhaps this is why fiction, nonfiction, and almost every other printed book form is printed in portrait. In printed literature, for example, it's less about moving one's eyes left-to-right than about up-to-down.

DESIGN SENSIBILITY

To use an analogy that I hope is original, but probably isn't: we have stars in the sky and many ways of understanding them. Design is the space that contains them. You could further take this to mean, abstractly (one hopes), that it's a sort of *fluid that everything else floats inside and on top of*. Maybe one day we can take this analogy further--see whether the objects that float

inside this fluid hold varying densities--as I'm sure they do, abstractly or otherwise. Design is like a fluid, carrying objects along a set physical trajectory. Design is both manufactured and divine--the mythic and holy flood of *Brother Where Art Thou?*--the sensuality of Michaelangelo's *Pietà*--the carnality of Palahniuk's *Fight Club*--the heinous, cosmic gratuity of Trey Parker and Matt Stone's *South Park*--the grit of Alan Martin & Brett Parson's *Tank Girl*--the fertile, rich lyricism of Derek Walcott (who by the way donated his Nobel cash to make what is now one of the world's greatest playwriting labs)--the weird, formal, yet radical effusiveness, and counterbalanced simplicity, of Cervantes' *Don Quixote de la Mancha*--the serene allure of a Frank Lloyd Wright house (although the man himself had much to be desired)--the buttery lyrics of a Nilo Cruz play--the iconographic harmony, and mischief, of Paul Klee's *Kettledrummer*--the weird, cozy musicality of a Norman Lewis painting, by whose rights as a painting *should* possess no musicality at all, in some views.

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From this list, we can learn more than just my taste in stories--a bit towards the magical-realist, poetic, and verbose. We can also observe that design does not, on the whole, discriminate when it comes to form. Below, I list Don Norman's core design mechanics, seeking to describe, generally, how these terms and concepts can be understood in, and applied to, a variety of narrative contexts. I list these, foremost, to point out that literature, games, and narrative experiences of all kinds abide by these universal design concepts as much as any other. There is no secret formula, no book long enough, no class dense enough, to describe all that is or could be communicated through varied contextual applications of narrative and design in the real-world.

Visibility – Visibility refers to a user's ability to see a part of a designed system and immediately know action should be taken to *make something happen* within that system. In games circles, this is sometimes referred to as "the big red button." Does the user have to press a button to start Act II? The first step to making that happen is ensuring that the user *sees that there is a button*.

Feedback – I haven't covered feedback nearly enough in this thesis, but hope to remedy this soon enough. Feedback is how a narrative system communicated directly with users to let them know whether their actions are appropriate (if what they've been doing *works*), and often involves suggestions or recapping user behaviors. Typically, feedback is seen as essential to game systems of all kinds, but it is difficult to theoretically distance it from "breaking the fourth wall." After all, if a book starts talking to me and telling me *how to read it*, I'm probably not in the story world anymore. But perhaps some disbelief should be suspended here.

Constraints – Constraints, or restrictions, are a natural part of life. No system can do everything (except for what would probably be called "*the everything system*," obviously, which surely *could* describe everything, should its name prove true—which I don't expect it would). Constraints exist in every media.

Mapping – Mapping is most easily seen in a communication product, like a keyboard, whose keys align to conceptual symbols, visually and otherwise—letters. A remote control, a mouse, a button, and so forth—all interfaces use mapping systems. This approach applies Preece’s (2002) definition of the term, “[referring] to the relationship between controls and their effects in the world. Nearly all artifacts need some kind of mapping between controls and effects, whether it is a flashlight, car, power plant, or cockpit. An example of a good mapping between control and effect is the up and down arrows used to represent the up and down movement of the cursor, respectively, on a computer keyboard.”^v

Consistency – Consistent use of symbols, systems, mechanics, and so forth are necessary elements of design thinking, according to Norman. - This refers to designing interfaces to have similar operations and use similar elements for achieving similar tasks. In particular, a consistent interface is one that follows rules, such as using the same operation to select all objects. For example, a consistent operation is using the same input action to highlight any graphical object at the interface, such as always clicking the left mouse button. Inconsistent interfaces, on the other hand, allow exceptions to a rule.

Affordance – Norman defines an affordance as that whose purpose is "to give a clue" (Norman, 1988). As Preece contextualizes: “When the affordances of a physical object are perceptually obvious it is easy to know how to interact with it” (Preece, 2002). Generally speaking, when something exists in order to help the user understand how it works, what the user should do with it, and why, then it’s an *affordance*. When you look at, say, a toaster over, you see buttons, switches, and maybe even words. You may *afford*, or *assume*, that the user has even used toaster ovens before, in which case certain signage may not be directly necessary. In any case, there’s an instructional booklet, yet another affordance. Tooltips in software applications, tutorials in video games, and the “help” button are all affordances, and exist in almost every interactive narrative system.

Research Constraints

This project was originally envisioned as a Research Thesis and was later switched to an Artistic Thesis—a fact that challenged my idea of what constituted research. I knew that various components of this project, including essays and a website (artistic product) component, would rely on research as a foundation for discourse. But I wasn’t sure what was considered research when, almost everything I touched, had to be recorded somehow, described, and ultimately researched using online and library resources. Perhaps, rather, the overarching problem with this essay, in the eyes of its author, is that much of the research performed for this thesis did not make it into the actual artistic project (“product”) portion. While I collected a wide variety of narrative artifact samples, only a small fraction have made it into these thesis project and presentation components. My eyes were larger than my stomach, I soon realized, and in the final stages of this project, I was not fully satisfied with the ways in which research components were able to be asserted on the website component. This research essay, ultimately, accounts for only a small amount of research that I performed. Research on mythic heroes from around the world, and

accounting for at least three books that I read for this thesis, did not nearly all make it into this project, for example. But I believe that in the web form, I have found a way to utilize digital resources, links, and viewing capacities that otherwise would not be possible in standard printed essay format.

ⁱ Noun. *The Oxford Mini-Dictionary*. Oxford University Press: Oxford, England, 1991. Pp. 339.

ⁱⁱ Anderson, Chris. *The Long Tail: Why the Future of business is Selling less of More*. Hachette, Boston: 2014.

ⁱⁱⁱ *Widewalls Galleries (7 November, 2019)*. <https://www.widewalls.ch/paul-quee-inspired-american-art/norman-lewis-untitled-1947/>

^{iv} *Widewalls Galleries (2 November, 2019)*. <https://www.widewalls.ch/paul-quee-inspired-american-art/>

^v Preece, J., Rogers, Y., Sharp, H. (2002), *Interaction Design: Beyond Human-Computer Interaction*, New York: Wiley, p.21. <https://www.csun.edu/science/courses/671/bibliography/preece.html>