WAVES: A DIGITAL COMIC PROJECT

A CREATIVE PROJECT

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MASTER OF ARTS IN DIGITAL STORYTELLING

BY

BRADLEY A. DAILEY

JEANETTE CASTILLO – ADVISOR

BALL STATE UNIVERSITY

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NARRATIVE SYNOPSIS

The Space Pirate known as Beck is sent on his first mission to an Earth-like moon, Aezerea, to investigate why Pi, an information technology giant, is evacuating valuable metal reserves and machinery from its terrestrial manufacturing plants to other facilities off-world. But Aezerea is a moon of many worlds, and Beck finds himself in the seedy Aezerean Underground, searching aimlessly for clues to the mystery behind the mystery.

Meanwhile, Rii was born and raised in the Pi worker system on Aezerea. She knows nothing about her real parents. She doesn't even know her real name. The surest thing in her entire life is that she was raised to be a 'cleric,' or office worker. Unexpected news, however, makes her rethink her life at Pi and a forgotten fairy tale called The Lone Leaf inspires her to look to the Underground for a new beginning.

The narrative website can be found at www.thewavesproject.com

INTRODUCTION

We live in a world where access to media is as constant as it is immediate. Digital devices become more and more redundant with each new generation; each cannibalizing the capabilities and specialities of its kin on the product line. You can watch broadcast television on your smartphone. You can make a phone call with your television. The question of “What can it do?” is rhetorical. What can’t anything do nowadays? Cell phones, tablets, laptops, computers, and
televisions are for most intents and purposes the same device; and their differences become grayer with each passing generation. What has become black-and-white is that the Internet is the central hub of information and entertainment for all modern devices, small and large.

It is here, the Internet, that all digital media converge. Text, images, sound, and video often exist in the same space. Likewise, storytelling mediums live side-by-side on the Internet, albeit in digitally altered states. Images and art are seen through the differing resolutions and picture profiles of the users’ screens, which - to the bane of artists and color technicians alike - come in a myriad of variations. Text differs again by screen kind, but also by which web browser the user employs. While it is commonplace for many media to populate any given web page, it is rarely in the form of a cohesive narrative. These sorts of narratives, which utilize several types of media to tell a story, make up one interpretation of the term ‘transmedia.’

According to Henry Jenkins (2010):

Transmedia storytelling represents a process where integral elements of a fiction get dispersed systematically across multiple delivery channels for the purpose of creating a unified and coordinated entertainment experience. Ideally, each medium makes its own unique contribution to the unfolding of the story. (p. 944)

Waves is transmedia in the sense that it uses traits of several storytelling mediums, including comics, video, prose, and the Internet. What differentiates it from Jenkins’ central definition of transmedia, and by association multimodal narrative, is that the entirety of the narrative of Waves is delivered in a central method, unifying the story by housing it all within one expansive web
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page. This could categorize Waves as multimedia, as Jenkins describes it (2013b). He writes:

“We might also distinguish transmedia from multimedia. Multimedia might use multiple kinds of media - words, pictures, sounds, videos - which are brought together in a single package” (“There’s a Monster..” section, para. 10). In Waves, the varying mediums are represented within the web page in a non-linear format in which the user navigates the content via URL links at their discretion, discovering backstory to the narrative and other related artifacts as they so choose. This is different from many traditional, “horizontal” transmedia narratives that exist between several forms of media, such as a film whose universe and/or backstory is expanded via a web page consumed separately from the film. A prominent example of this is the site that accompanied the cult film The Blair Witch Project (Myrick & Sanchez, 1999), which treated the film’s events as part of a timeline of folklore surrounding the fictional Blair Witch (“Mythology,” n.d.).

The root narrative of the project, to which all other transmedia artifacts relate, is a digital comic. Much like the term ‘transmedia,’ the term ‘digital comic’ can apply to many things. Originally, it meant comics that were created with computers as an integral tool in the process. The earliest ‘digital graphic novel’ was Marvel’s Iron Man: Crash, published in 1988 by Mike Saenz, a digital artist who also worked on what is known as the first digitally created print comic, Shatter (Gillis, 1985). Iron Man: Crash, Shatter, and Batman: Digital Justice (Moreno, 1990) - DC Comics’ first ‘digital graphic novel’ - were all produced using early computer graphics software. Now, computers have become an integral tool in all comic publishing, so the term has come to represent comics which are delivered to the reader in a digital format as opposed to comics that
are printed on a physical medium. Amongst modern digital comics, there is not yet an industry standard, and ‘digital comics’ come in many guises. One example that introduced many modern audiences to the term ‘digital comic’ was the video series Watchmen: Motion Comic (Hughes, 2008). The series was adapted from Watchmen, a limited-series of comic books by Alan Moore and Dave Gibbons that ran from 1986 to 1987 that were collected in 1987 and sold henceforth as a graphic novel. Watchmen: Motion Comic preceded the release of the film adaptation of the graphic novel (Snyder, 2009). Each episode reflected one issue of the comic, or “chapter” of the graphic novel, and was essentially the source comic, but narrated and animated, and was distributed online, on television, and later as a DVD. This type of digital comic is more specifically known as a ‘motion comic,’ specifying that the key adaptation is to add motion to the comic narrative.

One of the most prominent sources of ‘digital comics’ that is not publisher-specific is ComiXology, a digital comics distributor that launched online in 2007 (“Digital Comics..”). In addition to being a distributor of digital comics, ComiXology also developed their own engine for reading digital comics, called Guided View, that zooms in on individual panels, mimicking the flow of the reader’s eyes around the page. This engine is also used by DC and Marvel in their respectively branded digital distribution sites and apps.

The company Madefire produces what they call ‘motion books,’ which touch more into the realm of transmedia than ComiXology’s digital comic adaptations (Motion Books | Madefire). Like Comixology’s Guided View engine, Madefire’s motion books take the readers through the stories
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one ‘panel’ at a time, although not all motion books are based on existing comic books and graphic novels. Many of Madefire’s offerings are original works from Madefire creators, like Death & the Myrmidon (Sharp, 2012), while others are adaptations of classic short stories and fairy tales such as Bram Stoker’s Dracula’s Guest (2014). The two key differences between Madefire’s motion books and ComiXology’s digital comics are the use of audio and the reveal of information. Madefire motion books utilize music beds, ambient noise, and sound effects to complement the narrative. They also typically reveal one speech bubble at a time, which eliminates any possible confusion a reader might have with the conventional comics layout of speech bubbles. Overall, Madefire motion books have far fewer panels of artwork than ComiXology digital comics, relying heavily on the written word and minute changes to the presented image.

The Waves project addresses two evolving types of digital storytelling that I posit will continue to bleed into one another: transmedia narrative and the digital comic. These ever-evolving types of narratives are continually making their case as a genre-medium of their own, distinguishable from the established mediums of prose, radio, film, comics, television, video games, and internet, which I also consider a medium in and of itself. I hyphenate genre-medium because they transcend genre of storytelling – as a digital comic can be of any genre – and do not both fit into any one medium. As with The Blair Witch Project and the like, transmedia narratives can and often do expand over differing mediums of content delivery. In the context that I am using the term transmedia, however, I am simply borrowing the traits of the varying mediums’ content and converging my narrative into a singular medium: the internet. Digital comics by their very nature
are delivered via the internet and are consumed within a singular app or website. What differentiates these digital storytelling types from much of the content that is otherwise found within the internet medium is that digital comics and transmedia narratives are done with purpose and reason by their author(s).

As transmedia and digital comics continue to evolve along the lines that I am exploring with *Waves*, they will gain ground as a legitimate alternative to other mediums, eventually becoming the sole intended delivery platform for narratives. In the near future, they will surpass the status of niche spectacle that they currently bear and will be known instead for the unique narratives that only they have the potential to convey via their incorporation of text, images, animation, and sound.

In conceiving this project, I set out with many goals in mind for the project. Creatively, I wanted to create a world that was captivating for the user, and would encourage them to explore every page of the site in an effort to seek out the story. I also wanted the project to be innovative and not mimic or reflect another work, series, or medium too closely. Technically, I wanted the project to meet or exceed current industry standards for high-resolution screens to provide the user a high-quality experience that is not diminished by low-quality media. Theoretically, I wanted to integrate the various forms of storytelling to create a more mentally stimulating and engaging experience for the user. I also wanted to experiment with how much and how little a web page could display of a comics-style narrative while maintaining the feel of comics.

Narratively, I knew from the beginning that I wanted *Waves* to be a space opera that paid homage
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to classics of the science fiction genre like *Star Wars* (Lucas, 1977), *2001: A Space Odyssey* (Kubrick, 1968), and *Cowboy Bebop* (Watanabe, 1998), but also stand on its own with a unique story and style.

LITERATURE REVIEW

The transmedia research and work of media scholar Henry Jenkins were primary sources in constructing the narrative framework for the project. Works by Scott McCloud and Will Eisner inform the comic book aspect while also reinforcing transmedia traits by exploring the varying strengths of content mediums. Theoretically, I explored the works of Carl Jung and Christopher Vogler. Jung’s archetypes influenced character creation while Vogler’s book, *The Writer’s Journey: Mythic Structure for Writers* (2007), swayed plot points and structure. Other influences to character, structure, and format include Robert McKee’s *Story* (1997) and David Trottier’s *The Screenwriter’s Bible* (2010).

Henry Jenkins’ conceptual use of the term ‘transmedia’ began in his article, “Transmedia Storytelling,” for Technology Review in 2003. He writes:

> In the ideal form of transmedia storytelling, each medium does what it does best - so that a story might be introduced in a film, expanded through television, novels, and comics, and its world might be explored and experienced through game play. Each franchise entry needs to be self-contained enough to enable autonomous consumption. That is, you don’t need to have seen the film to enjoy the game and vice-versa. (10th para.)

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Jenkins gives the Pokémon franchise as an example of great transmedia, as any ‘product’ stands alone, but acts as an entry into the overall franchise. In the very next paragraph, Jenkins gives a good reason for transmedia narratives: “Reading across the media sustains a depth of experience that motivates more consumption” (11th para.). This statement must have proven true, as Jenkins makes a similar one a decade later (2013b): “Transmedia encourages additive comprehension. We learn something new as we follow the story across media” (“There’s a Monster..” section, 10th para.).

Jenkins, who primarily studies interactions between ‘texts’ and consumers, uses his personal ‘weblog’ as a platform to discuss emerging media and technologies (Confessions of an Aca-Fan). Many of his interviews with fellow transmedia scholars and producers also proved useful in clarifying what can make for a compelling transmedia narrative.

In one such interview with Tyler Weaver (2013a), a transmedia producer and author of *Comics For Film, Games & Animation: Using Comics To Construct Your Transmedia Storyworld* (2012), Weaver explains that not all audiences are willing to follow the story across media:

> An absorptive audience will seek out as many pieces of a transmedia experience as they can and absorb it into their lives somehow. Some will take it to the (wonderful) extreme of creating their own stories within the storyworld. This is different from a passive audience. Some people simply want to sit back and be entertained. Both are essential. The key with transmedia design going forward will be to give both passive and absorptive audiences something to chew on. (para. 2)
Jenkins also interviewed Andrea Philips, author of *A Creator’s Guide to Transmedia Storytelling* (2012). Philips provides what she calls a “fashionable solution” to entertaining passive and absorptive audiences: “to make each platform a self-encapsulated narrative, completely accessible to casual audiences” (2012b, Some argue.. question, para. 2). Her advice is in line with Jenkins’ earlier example of the Pokémon franchise being so great because of its many, accessible points of entry.

In *Waves*, the user is not asked to pursue the story across media, but only across a website of congregated media. This, in theory, should make it easier for a passive user to become an absorptive user. Regarding Philips “fashionable solution” of making each “platform a self-encapsulated narrative,” many chunks of the overall narrative of *Waves* can be digested independently and still represent a story within itself. The comic narrative can operate separately from the Prologue and many of the Artifacts, but the overall experience is enhanced when all pieces of the narrative are consumed.

Knowing from the beginning that I wanted the project to be a kind of digital comic, Scott McCloud and Will Eisner’s works in comics studies greatly influenced the process of writing and designing panels, especially those that are still images with no movement or sound.

At the beginning of his seminal book, *Understanding Comics* (1993), author Scott McCloud’s narrator muses: “‘Comics’ is the word worth defining, as it refers to the medium itself. Not a
specific object as ‘comic book’ or ‘comic strip’ do” (p. 4). Even in 1993, McCloud was clearly able to see that comics are more than pictures and words on paper. The medium relates much more to the relationship between those pictures and words, regardless of delivery format and layout.

One characteristic of comics that makes it unique among mediums is its representation of time within the panel. Will Eisner, in his own groundbreaking work *Comics and Sequential Art* (2008), states that panels, speech, and familiar objects “are critical to supporting the recognition of time” (p. 30). That is to say a panel perceptually lasts at least as long as the length of time it takes for everything within it to occur. In other words, a panel full of dialogue represents at least the amount of time it takes for each character to speak in turn, plus any other actions within the panel that may add to it. In addition to each panel’s cost of time, the difference from one panel to the next adds to the understanding of time within the previous panel. Eisner adds, “The number and size of the panels also contributes to the story rhythm and passage of time. For example, when there is a need to compress time, a greater number of panels are used” (p. 30). This transcendence and manipulation of time within a single image, which we typically perceive as a singular moment, separates comics from other photographic media like photos and video.

In *Understanding Comics*, Scott McCloud even distinguishes comics from animation:

I guess the basic difference is that animation is sequential in time but not spatially juxtaposed as comics are. Each successive frame of a movie projected on exactly the
same space - the screen - while each frame of comics must occupy a different space.

Space does for comics what time does for film! (p. 7)

What McCloud (surprisingly) fails to consider here is the juxtaposition of animations in space. Formats like .gif files allow simple animations to loop continuously with no interaction needed by the user to start or stop. In a way, these loops can also be seen as an altered perception of time a la comics. They are not strictly defined by a number of frames or seconds between a cut (at least not when perfectly looped), but they still represent a moment in time that can be contextually understood.

Carl Jung’s archetypes and Christopher Vogler’s *The Writer’s Journey: Mythic Structure for Writers* (2007) were highly influential in creating and designing characters. Jung’s archetypes, though developed to psychologically analyze patterns of human personality and perceived roles, are useful in creating characters that audiences will recognize and identify with (1976). Vogler’s book, greatly influenced by Jung’s work, was especially useful; having more contemporary examples of archetypes and structures seen in today’s media landscape. *The Writer’s Journey* also draws inspiration from Joseph Campbell’s monomyth, which analyzes the classic ‘hero’s journey,’ breaking it down into 17 stages (2008). Vogler’s re-interpretation of Campbell’s monomyth, which Vogler calls “The Writer’s Journey,” has fewer stages and more accurately parallels the major stages a ‘hero’ encounters in more modern narratives.
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Before taking on this project, I had two primary experiences with comic storytelling that pertained most directly to the steps taken in this project: a short motion comic I produced called “Dead, Cowboy.” and a comic script I wrote called “Block of the Dead.”

“Dead, Cowboy.” was a hyper-stylized, short, motion comic, witnessing a showdown between a sinister gunslinger and a doe-eyed Native American teenager, looking for vengeance. In producing this motion comic, I created the characters, illustrated them, created the landscapes and backgrounds from photos, animated the ‘panels’ over time, and edited music to the animations. I illustrated the characters by hand, scanned them, and edited them in Adobe Photoshop and Adobe Illustrator before animating them in Adobe After Effects. The final motion comic was one minute in length. Many of the skills learned in creating “Dead, Cowboy.” were used in making Waves, especially the process of digitizing and animating hand illustrated characters and elements.

“Block of the Dead,” on the other hand, was a zombie comedy in the vain of Shaun of the Dead (Wright, 2004) that followed a pair of friends on Halloween night as they try to escape their party, cross the block, and rescue another friend. I took “Block of the Dead” from a medium-length screenplay I had written prior and adapted it for the comic medium, creating a comic script and mock-up of panels. I used a conventional screenwriting software to write the comic script, and created the panel mock-ups in Adobe Photoshop. The script was the standard length of a comic issue, 22 pages, and the panel mock-ups were of equal length. Although there was no
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need to write for the constraints of a page when creating *Waves*, the skill learned of writing for a comic panel was used greatly.

In addition to building on skills learned from the aforementioned creative projects, *Waves* was also designed to address some shortcomings of current examples of digital comics and transmedia, specifically ComiXology and Madefire.

ComiXology excels in its Guided View technology, which allows comic readers to more easily navigate the comic page by highlighting a single panel at a time. This feature negates basically all guesswork when it comes to reading comics. This is also cancels any chance of the reader accidentally being exposed to panels before they are supposed to. There are a few drawbacks, however. One is that most comic pages are not designed with high definition screens in mind, and zooming in on individual panels of an entire page often results in reading pixelated, low-resolution panels. I addressed this in *Waves* by making each panel meet or exceed current industry standards for resolution. Another drawback to Guided View is that the pages are never seen in their entirety, and the narrative flows from page to page and scene to scene with no real indication other than what is in the panel. The composition of a comic page can be used for great effect when it comes to page-turning reveals and visual interactions between the panels. *Waves* was designed to be a more linear experience of panel exposure, which, like Guided View, has its positives and negatives. Like Guided View, it negates the guesswork of panel navigation, and the chance of the reader seeing or reading a panel before they are supposed to. *Waves*’ current format also suffers from an inability to show complex compositions and interactions of panels on a
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whole page. The pages are still visually broken up, however, but by scene rather than any spatial restriction of a page, so the narrative does not all bleed together like it does in ComiXology’s Guided View.

Madefire’s motion books address some of ComiXology’s Guided View shortcomings, as well. Each panel in Madefire’s motion books are made with screens in mind, so the experience is always high-resolution and high-quality. Madefire’s motion books are all created as panel-to-panel reading experiences, so navigating a Madefire motion book is similar to ComiXology’s Guided View, but unique in that each user-advancement is typically a minute change in imagery, primarily advancing the narrative prose or character dialogue. If ComiXology’s Guided View makes it much easier to navigate the comic page, Madefire’s motion books make it impossible to lose one’s place. One monumental difference between ComiXology and Madefire is the latter’s use of audio and sound effects in their stories, which adds an aspect of storytelling that can work very well in building the ambience of a scene or story. The point at which a story is no longer a comics-style narrative and enters the realm of transmedia or multimedia is undoubtedly subjective, but Madefire makes no claim of creating digital comics, seeming content with telling stories its own way, as ‘motion books.’

METHOD

In conceiving an internet-based, transmedia narrative, I knew I wanted the comics medium at its heart, but to explore it in a way that had not yet been done. The question then was how to adapt
the comics medium for the internet medium differently than the current adaptations offered by ComiXology and others. Henry Jenkins said it well:

…we need to distinguish between adaptation, which reproduces the original narrative with minimum changes into a new medium and is essentially redundant to the original work, and extension, which expands our understanding of the original by introducing new elements into the fiction. Of course, this is a matter of degree – since any good adaptation contributes new insights into our understanding of the work and makes additions or omissions that reshape the story in significant ways. (2010, p. 945)

Most digital comics are little more than the redundant adaptations that Jenkins refers to. I wanted to create a transmedia comics narrative that would actually take advantage of the medium’s new residence. I examined the internet and what current web browsers offer that I could take advantage of within reason of my skill set. The traits that I decided to approach were: web browsers’ capability of displaying conventional text, images, and video alongside other digital formats like .gif files; the non-linear nature of web page navigation; and the limitless virtual space a web page offers.

Having my tools in mind, the next question was which genre best suits a transmedia narrative. I considered horror, fantasy, and noir, but ultimately decided on the science fiction genre for its sprawling possibilities in creation of all kinds - characters, settings, time, etc - which I felt paralleled the possibilities of the transmedia narrative I was just beginning to explore. In her interview with Henry Jenkins, Andrea Philips talks genre in transmedia narratives:
A lot of great transmedia works share certain surface characteristics: intricate mythologies or story worlds, a thread of the mysterious unknown, and some form of group identity the audience can relate to and imagine being a part of. Science fiction and fantasy are of course the main stock of transmedia so far, both because those genres easily fit those criteria, and because their fans tend to both interrogate their fiction relentlessly and sit early on the tech adoption curve. But we also see a lot of thrillers and mysteries, because those provoke seeking and solving behaviors; the audience actively wants more angles to the story and is motivated to seek them out. (2012a, para. 3)

The works of Carl Jung and Christopher Vogler proved valuable in creating characters, relationships, and overall plot points of Waves’ narrative. Other genre works like Cowboy Bebop (Watanabe, 1998), Blade Runner (Scott, 1982), Star Wars (Lucas, 1977), and 2001: A Space Odyssey (Kubrick, 1968) influenced the aesthetic, tone, and plot of Waves, as well. This stage included sketching character and prop designs.

I wanted to create a narrative that not only utilized differing media, but differing representations of media as well. I wanted to create ‘Artifacts,’ or extra pieces of media that would add to the overall story and help create a kind of mythology within the story universe. Jenkins writes about mythology and convergence of media (2006):

Convergence occurs within the brains of individual consumers and through their social interactions with others. Each of us constructs our own personal mythology from bits and fragments of information extracted from the media flow and transformed into
resources through which we make sense of our everyday lives. (Introduction section, 10th para.)

One source that I looked at closely when considering these Artifacts was the website for the movie *Donnie Darko* (Kelly, 2001), which features many cryptic artifacts like affidavits, obituaries, phone call transcriptions and excerpts from a fictional book called *The Philosophy of Time Travel* that add to the overall mythos of the narrative (“_____donnie darko_____,” 2001).

With the overall plot in mind, I decided on a few artifacts to surround the narrative, help inform the backstory, and expand the mythology of the universe. The first artifact would be a simple biography on the character Rii by her employer, Pi, which reveals her relationship to another character in the story, Silas. The second would be a high-context military report, which tells its own contained story that informs Beck’s backstory and adds to the mythos of the narrative’s universe. Finally, a fairy tale written by Silas called “The Lone Leaf” that acts as a loose analogy of Rii and Beck’s relationship later on in the narrative.

Next was to design how the central, comic narrative would be portrayed on the page. Compared to a comic book, the internet offers two distinct advantages in telling a comics-style narrative: the ability to house video, audio, and other digital formats; and unlimited virtual space in every direction. To maintain the aesthetic and familiarity of the comic, I made the decision to utilize video, audio, and other formats only when their offerings tell the story more clearly than still panels could. This decision happened to encompass the first panel of the narrative, the splash page of “Chapter 1: Adrift,” which I chose to display as a video rather than a series of panels to
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showcase the kind of interpolation and pacing within the celestial scene. Video is utilized as a panel only one other time, midway through the second chapter, to accentuate the sounds of the alarm and the ship’s transition to a stabilized state. The digital .gif format is used at the beginning of “Chapter 2: Red Light, Blue World” to show the violent shaking within the ship, the immediacy that the flashing lights imply, and the ebb and flow of HERO’s glowing lights. I considered displaying the sequential panels as .gif files as well, but decided against it because I felt the continued movement would be redundant.

The size and resolution of panels were designed to meet or exceed industry standards. Video panels are in Full HD anamorphic - 1,920 pixels by 800 pixels. The videos were exported as .mov files with the h.264 codec since they were meant for delivery and not further editing. The videos are hosted through Vimeo, who offers sleeker, more customizable options for their embedded videos when compared to YouTube. Landscape oriented .gif panels are 1,920 pixels long while square-shaped .gif panels are 1,080 pixels by 1,080 pixels. These sizes were chosen to meet Full HD standards while being small enough to keep web page load times down. Panels that are simple still images are 3,840 pixels long to accommodate Ultra High Definition screens.

Many things were taken into consideration when deciding on the layout of the panels on the web pages. Most important of which were the limitations of traditional page composition. Will Eisner addresses the drawbacks of the printed page:

In sequential art the artist must, from the outset, secure control of the reader’s attention and dictate the sequence in which the reader will follow the narrative. The limitations
inherent in the technology of printed comics are both obstacle and asset in the attempt to accomplish this. The most important obstacle to surmount is the tendency of the reader’s eye to wander. On any given page, for example, there is absolutely no way in which the artist can prevent the reading of the last panel before the first. The turning of the page does mechanically enforce some control, but hardly as absolutely as in film. (2008, p. 40)

A primary advantage when creating a comics narrative for the internet is that the web page is an “Infinite Canvas” of virtual space as Scott McCloud calls it in his book, Reinventing Comics (2000). With this space, panels of the page can easily be hidden outside the window of the screen, necessitating the reader to advance the story through scrolling. Panel composition a la comic books and graphic novels carries its own virtues, but is ultimately unnecessary when page constraints are not an issue. Given the choice between arranging the panels along the x-axis and the y-axis, I chose the y-axis for two reasons: the first is that the majority of web pages are vertically-oriented, probably related to the scroll wheel on desktop computers’ mice and, more recently, ease of scrolling a touch screen with one’s thumb; the second is that more cultures read top-to-bottom than left-to-right.

Having the plot, the artifacts, and plan for the panel layout, it was time to write the script. This was an ever-evolving stage that sometimes changed while making a panel. I first wrote the script as a screenplay - because that is the medium I am most familiar with - before adapting it into a comic script, which included breaking the dialogue and action down to panels which properly
represent and pace the narrative. This stage included panel sketches to work out panel composition, framing, and action included.

When panel designs were completed, I started illustrating the final elements for each panel. I used a thin, sketching pencil for the initial lines before tracing over them with a fine point pen. After the ink dried, I erased all initial pencil lines and retraced any ink lines that needed touching up. I then scanned the illustrations at 2,400 dots-per-inch. I imported them into Adobe Photoshop for cleaning up, if necessary, before importing them to Adobe Illustrator to be transformed into vector images. The vector images were then imported into Photoshop where I would add color to the illustrations and roughly arrange them into position within the panel. The panel was then imported into Adobe After Effects where lights and effects were applied to create ambience.

The next step was to overlay dialogue fonts and onomatopoeias. According to Will Eisner: “Lettering (hand-drawn or created with type), treated “graphically” and in the service of the story, functions as an extension of the imagery” (p. 2). In designing panels for Waves, I chose to use font as Eisner describes it rather than simply using a typical comic-styled font for all things as most comics do. Font overlays in “Chapter 1: Adrift” are in Gill Sans, a classic font used as the title font for 2001: A Space Odyssey (Typeset in the Future, 2014). Beck’s dialogue is in a more traditional comic book-type font, Komika Text Kaps, because he’s the primary protagonist of the comic. HERO’s dialogue is a variation of Futura that gives it a handwritten feel, which looks simultaneously futuristic and organic, if not childish, which I felt was appropriate for the lovable and ever-faithful robot sidekick.
Finally, the decision to add paper textures as overlays to the panels was made to simulate the organic, tangible medium of comics printed on paper. A glaring aesthetic difference between digital comic entries and their paper-based brethren is the effect of ambient light in the reader’s physical world. Paper pages of a comic book have texture and are often bent into a curve while reading, refracting light in different directions, making every panel minutely unique at any given moment. This effect is lost in digital comics, where screens consistently light the perfectly flat panels. Though a perfect replication of the chaos of atmospheric lighting could not be achieved, a simple overlay of imperfect paper felt like it added greatly to the warm, organic feel of the digital panels. Occasionally, choices of texture were made based on the composition and subject matter within the panel, allowing creases and scratches to complement the panel’s contents.

Internet-based transmedia narratives are almost limitless in their possibilities. Game designers could integrate Flash or HTML5-based games that interact or even centrally portray the narrative. Web designers and coders could use those same technologies to make a more advanced, interactive site. The internet’s non-linear nature makes it a prime candidate for telling non-linear stories, not unlike the *Choose Your Own Adventure* books published by Bantam Books that experienced popularity in the 1980’s and ’90’s. I made my choices to fit within my skill sets and prior experiences. As Scott McCloud said in reference to the current world of comics: “It should be kept in mind at all times that this world is only one — of many possible worlds!” (1993, p. 23)
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DISCUSSION

*Waves* is a congregated, transmedia narrative with the panel-driven digital comics medium at its center. The story is a dystopian, space opera set on an Earth-like moon, Aezerea, that has been pillaged of its natural resources by an apathetic, information-technology corporation, Pi. The Black Sea Pirates - a group labeled as a ‘terrorist organization’ by the media - intercepts communications between Pi officials revealing that they plan to evacuate their large machinery and metal reserves from Aezerea, but with no mention of relocating Aezerea’s 3 million Pi workers. Beck, a newly-recruited Black Sea Pirate, is sent on his first mission to Aezerea to investigate why Pi is evacuating its machines. But Aezerea is a divided world, split only between Pi’s operations, which emphasize class division and the worshiping of their figurehead, Mother; and the Aezerean Underground, a community of outlaws that live an archaic way of life to avoid the polarized economic landscape and corrupt justice systems of the time. Finding answers is an aimless cause, so Beck must enlist the help of the locals if he is ever to figure out just what is happening on Aezerea. Meanwhile, a Pi worker called Rii feels like something in her monotonous, fruitless life is changing, and an angst grows inside of her that makes her discontent with her place in the system.

*Waves* is inspired greatly by genre entries like *Cowboy Bebop* (Watanabe, 1998), *Star Wars* (Lucas, 1977), *Blade Runner* (Scott, 1982), and *Space Dandy* (Watanabe, 2014). With the exception of *Star Wars*, a cohesive aesthetic that many of these entries share is that of a dark, yet colorful landscape. Another common trait amongst these is the representation of technological
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devices, which are usually portrayed as being worn and high-context within the worlds they exist. For example, lightsabers in *Star Wars* are seen as archaic junk to many characters, yet the bulk of the audience has no idea how they work, and does not need to. Diehard fans, of course, have sought out explanations of the technology in later transmedia works. In addition to science fiction, two of the influential works - *Cowboy Bebop* and *Blade Runner* - are also film noir, a genre which I aimed for with the high-contrast aesthetic as well as the motivations and cynicism within the characters.

The problem space that the project sought out to fill was the void left by the current state of digital comics, many of which do not take advantage of the medium in which they reside, the internet. I wanted to approach the problem space with the preservation of the comic medium’s strengths in mind. Most importantly, comics’ representation of time within a panel, which can range from depicting a fraction of a second to portraying an entire conversation to representing an entire sequence of events within a single panel. I also wanted to take more advantage of the internet medium as a delivery source. Specifically, the internet’s “infinite canvas,” non-linear framework, and equal representation of media.

Approaching those problem spaces, *Waves* was designed as a multi-page website that featured a comics-style narrative at its core with multiple pages of multimedia acting as support of the narrative. The panels were designed to stay as true to the comic medium as possible without sacrificing the clarity of the story. Some panels were designed as video rather than traditional comic panels because the aspects of video - movement, interpolation, and audio - better told
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what was happening in that moment of the story. Web pages are not bound by physical page
constraints, and as such a singular page can contain many more panels than a paper-based comic
while maintaining practicality and readability. The non-linear nature and availability of content
within the web site allows the users freedom to consume the narrative in whatever order, and to
whatever extent, they so choose.

CONCLUSIONS AND RECOMMENDATIONS

In taking on this project, I was able to take the skills learned in my studies as a student of
Telecommunications, Creative Writing, and Digital Storytelling; and put them to work on
something that I created and have full investment in. My learned knowledge of creative writing,
comics studies, photo editing and animation softwares, web design, and cinematography were
just some of the skills utilized in bringing the project together. Moving forward, I hope to
continue to utilize all of these skills in future projects, but in collaboration with others.

Though I had experience in all areas of the project, the grand scope of it was larger than I truly
anticipated when conceiving it. Every aspect that has gone into this project has been a larger
undertaking than I had previously taken on. I had written stories, but never designed an entire
fictional universe for them to exist in, which is something I feel is necessary when conceiving
compelling science-fiction narratives that is not mandatory in other genres. I had designed
characters, but no more than a few per story. I had previously made web sites, but never one with
as many pages that had to be cohesive in its digestibility. I had illustrated characters and panels,
but only a few at a time. I had managed files pertaining to large projects, but this project required
a massive folder system to maintain structure and navigability between the assets unlike anything I have worked on to this date.

The project was conceived to explore some of the ways that the internet medium could be better used to tell a comics-style narrative than current representations of digital comics. I chose to create the narrative from an idea I had for a science-fiction comic series, titled Waves, which would be extensive and on-going. The original concept was to capture the beginnings of said series in a transmedia narrative converged into a singular website with a comic narrative at its core. The result is a website that has several pages of original, multimedia content for users to explore in any order they so choose. At times, the pages make recommendations for following a certain course, but only pages that are naturally followed by others in a sequence, such as moving from one chapter of the core comic narrative to the next. The comic narrative itself takes advantage of the internet medium by utilizing web pages’ capability for multimedia and digital formats as well as its theoretically limitless page borders. Users of the site can experience the first two ‘scenes’ of the narrative in comic format, read ahead to the end of the first act in the form of an extensive treatment, and explore artifacts that interact with the narrative at points in the story.

If I could change the way I approached the project in regards to the problem space, I would not create a new narrative or use an unfinished narrative for the project. I would adapt an older, completed work, whether it be my own or another’s. This would allow for a more focused approach to the utilization and exploration of mediums, and take pressure and time away from
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story creation and editing. I would also choose a work that is short enough to be completed in its entirety within the scope of the project.

BIBLIOGRAPHY


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**APPENDIX**
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Section 1

The first section of figures refers specifically to scripts of text written for the website, comic narrative, and artifacts.

Figure 1.1

This is the script used in the “Getting Started” section of the website:

Getting Started

The purpose of The WAVES Project is to explore some of the many ways in which the internet can better tell a comics-style narrative.

Many comic readers don't care for digital comics the same way they do for traditional comics and graphic novels, preferring the tangible romance of pages between their fingers. For myself, the disconnect lies in that the digital comic is rarely more than a superficial reflection of the comic page. The internet is a powerhouse of a medium. It gives equal footing to text, video, audio, and interaction as well as offering the potential for a non-linear reading experience not found in books or television.

In adapting my own story, WAVES, I am incorporating a mix of media to help accentuate the narrative, and offer the reader something more than they get from the average digital comic.
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The central narrative is composed of panels, like a traditional comic or graphic novel. The panels, however, are a mix of stills, gifs, and video. Whatever format best and most clearly paints the scene. The panels are arranged vertically on the page rather than the traditional left-to-right, top-to-bottom. And the pages are broken up by scene rather than being limited by the number of panels on a page.

There are also 'Artifacts' that give extra details about the world, characters, and events. Some Artifacts interact directly to the narrative at points while others simply expand the world.

To start, click the button below to read the prologue and synopsis of The WAVES Project, or use the navigation above to jump ahead.

Figure 1.2

This is the script used in the “Prologue and Synopsis” section of the website:

Prologue

Advances in space travel have allowed the human race to extend far, far beyond the reaches of our solar system. New worlds, discovered continually, are cultivated as vacation destinations. The wealthy live in a cosmic paradise, but the majority of humans are born and raised with a sole purpose: to sustain that paradise.
Ancient faiths have gone extinct; replaced by free-market mantras and corporate deities.

The military and police are privatized, executing freelance justice in the name of the highest bidder. One such organization, The Interstellar Military Service (ISMS), has two distinct duties: to police outer space and to explore uncharted territory, claiming new worlds for whomever commissions the voyages.

One of the largest buyers of new terrestrial estate is Pi, an information technology giant. After recently acquiring the data, rights, and methods of all of its former competitors, Pi is the sole remaining personal information congregator. And while selling personal information is the most lucrative business in the cosmos, they also manufacture their own electronics.

There are those, however, that live outside the realm of the rich and the poor. They are those that live in The Underground; a term referring to any number of self-governing societies that grow from those individuals who wish to escape the modern social hierarchy and the 'justice' system. In the Underground, one’s worth is measured by his or her value to the whole of society.

Recently, tales have rolled through the Underground of a disastrous encounter in unexplored territory between an ISMS ship and a god-like Being. The infiltration of these tales through the working class has many questioning their contemporary faiths, instilled by their employers and enforced by their peers. The media’s vehement denial of this encounter - what has come to be known as 'The Event' - has many questioning their place in the universe.
New life is waved into the flames of an old insurgency, the Black Sea Pirates. Deemed a 'terrorist organization,' the Black Sea Pirates' purpose is to fight in the name of the working class and uncover the truths of the universe. The truths of which have become ever more grey since 'The Event' and the surfacing of individuals with abilities that many believe to be magic.

Synopsis

The Pirate known as Beck is sent on his first mission, to an Earth-like moon, Aezerea, to investigate why Pi is evacuating valuable metal reserves from its terrestrial manufacturing plants to other facilities off-world. But Aezerea is a moon of many worlds, and Beck finds himself in the seedy Aezerean Underground, searching aimlessly for clues to the mystery behind the mystery.

Meanwhile... Rii was born and raised in the Pi worker system on Aezerea. She knows nothing about her real parents. She doesn't even know her real name. The surest thing in her entire life is that she was raised to be a 'cleric,' or office worker. Unexpected news, however, makes her rethink her life at Pi and a forgotten fairy tale called The Lone Leaf inspires her to look to the Underground for a new beginning.
FADE IN:

EXT. SPACE

Light rises from behind a silhouetted moon. This is AEZEREA. As sunlight crawls across Aezerea’s surface, exposing its green-and-blue landscape, we see that there’s not one sun, but two. A binary star, dancing in sync.

On the other side of Aezerea looms a reddish-pink gas giant. This is NORKOS. On the side of Aezerea that faces Norkos, lights sparkle across the globe’s face. City lights.

SUPER 1:
Moon : Aezerea
Mass : 6.8787x10^24 kg
Human Population : 3 million Pi Workers (Total Unknown)

SUPER 2:
Planet : Norkos
Mass : 3.1415x10^27 kg
Human Population : 0

Between Aezerea and Norkos, the space twists and morphs to a point. A singularity. From this, a relatively small, white tetrahedron-shaped craft appears. This is BECK’S DRIFTER.

INT. BECK’S DRIFTER

BECK, a space pilot donned in a black-and-white medium-duty jumpsuit, pulls back on the throttle of his control chair. The Drifter, sleek and dark inside, vibrates violently. Beck’s held in place by a five-point harness and the shapely grip of his racing seat-like control chair. A red light flashes and an alarm sounds. Beck wears a fitting, full-faced helmet with a black, reflective face. A neon pink cape drapes around his shoulders and goes down to his waist. Beck is thin, but capable. His chest heaves in heavy breaths.

BECK
HERO! Are we going to die?

A port in the wall opens like the sliding blades of a lens iris. A robot in the shape of a small, black orb emerges from the opening. This is HERO. His ‘face’ is a simple emoticon, illuminated by a cool, blue light. He has two red, cone-shaped antennas that resemble little horns with a string of electricity dangling between the antenna points. His face is deadpan.

HERO
To my knowledge, all organisms expire eventually, Master Beck.

BECK
I meant now, HERO!

Hero floats over by Beck.

HERO
Oh. Well, I certainly hope not, sir.

BECK
Then what the fuck’s with all the shakes?

HERO
It seems the W.A.V.E.S. motor is still quite hot, and it’s making it take a bit longer for the revolutions to wind down. Or maybe it’s the other way around, but all the same, sir.

BECK
Well, make it stop, HERO. I’m going to puke!

HERO
Puke, sir? Unless my memory was corrupted in the rewrite, you were ‘puke’-free all through the academy. Is something the matter?
Beck leans his head back.

BECK
HERO... What happens if I throw up in my helmet?

HERO
Depends on how much you throw up, sir. A lot, and you could drown. A little, and you’ll just be in grave need of a wash.

The alarm quiets and the shaking subsides. A pleasant tone rings through the cabin - DUN DA.

A WHIR sound picks up through the ship.

HERO
Gravity actuators on, sir.

Beck undoes his harness with a click and leans forward in his command chair. He takes deep breaths.

Beck looks at Hero.

BECK
You remember the Academy?

HERO
Should I not, sir?

Beck pauses.

BECK
How’s the air?

HERO
Pressure is low, but rising toward optimal levels. Temperature is quite warm, but..

Beck puts his hands on his helmet. Fingertips on his temples.

BECK
Cut the shit, HERO. Can I breathe?
HERO
Uh, well, you should be able to..

Beck pushes the buttons on his temples and the back of his helmet splits in the back down the middle, sliding into the front.

He pulls it away from his face, like it were a mask. He hesitates, holding in his breath and his vomit. He’s handsome, with a sharp face and short facial hair. Finally, he lets out an exhale and takes several more deep breaths with his eyes closed.

HERO
Activating skylight mode, Master Beck.

BECK
“Should be able to,” HERO?

Beck opens his eyes, just in time to see the ceiling of the craft fade from black to a beautiful view of Aezerea.

HERO
Well, sir, I must account for the faint possibility of trace unknown gases, which would almost certainly prove toxic to your human respiratory system, which is – no offense, sir – quite fragile, universally speaking. I’ll collect air samples in the event you should perish sometime soon.

Beck stands and looks up through the observation window. He holds his helmet in his hand. Hero floats next to him.

BECK
Thanks, HERO. I’d hate for my death to go undocumented.

HERO
Don’t worry about it, sir.
EXT. SPACE

Light rises from behind a silhouetted moon. This is AEZERA. As sunlight crawls across
Aezerea’s surface, illuminating its green-and-blue landscape, we see that there’s not one sun, but
two. The binary star dances in sync, center stage of the solar system. Just on the other side of
Aezerea looms a massive, reddish-pink gas giant. This is NORKOS. Facing Norkos, city lights
sparkle on Aezerea's face. Between Aezerea and Norkos, the fabric of space twists and morphs to
a point. A singularity. From this, a relatively small, white tetrahedron-shaped craft appears. This
is BECK’S DRIFTER.

INT. BECK'S DRIFTER

Inside the Drifter, BECK (30) - a Space Pirate donned in a black-and-white jumpsuit - pulls back
on the throttle of his control chair. The Drifter, sleek and dark inside, vibrates violently. Beck’s
held in place by a five-point harness and the shapely grip of his racing seat-like control chair. A
red light flashes and an alarm sounds. Beck wears a fitting, full-faced helmet with a black,
reflective face. A neon pink cape drapes around his shoulders and goes down to his waist. Beck is skinny, but looks like he can handle himself. A port in the wall opens like the sliding blades of a lens iris. A robot in the shape of a small, black orb emerges from the opening. This is HERO. His ‘face’ is a simple emoticon, illuminated by a cool, blue light. He has two red, cone-shaped antennas that resemble little horns with a string of electricity dangling between the antenna points. HERO explains that the W.A.V.E.S. motor - what allows the craft to teleport - is overheating. Eventually, the motor cools down and the alarm subsides. Beck takes his helmet off, revealing a young, chiseled face with short facial hair. He hesitantly takes his first breaths without his helmet. The side of the Drifter turns transparent, allowing Beck and HERO to look out at the Aezerean landscape.

INT. OFFICE - DAY

A security camera watches a young woman work at a desk in a small cube-shaped room. This is RII (27). Text scrolls on the wall, reflected in her thick glasses. Her long, indigo hair falls in a ponytail onto the floor. She wears a white one-piece dress with a black collar and black-and-white stockings. She taps away on the desktop, which illuminates a burning red with each stroke. A large, red emblem looms over her desk. It's a minimalist interpretation of the mathematical number Pi; the logo for the information technology giant Pi, for whom Rii works. An elder woman's voice fills the room, stating that the next work-break won't be for another three hours. This is the voice of MOTHER, Pi's worshiped figurehead. Rii breathes a sigh of unrest.
Beck and HERO pilot the Drifter into the airspace over Aezerea's only city, ALEXANDRIA. An image of a Pi air traffic controller appears in the ship. He wears an all-white turtleneck, bowler hat, and number badge with the Pi emblem. He tries to check Beck's identity first by his face and then his fingerprints, but Beck explains that his ship's camera is broken and that his fingerprints were burnt off. Annoyed, the air traffic controller asks Beck for the password to city. Beck manages to recall it, but the air traffic controller reveals that that was last month's password. HERO, however, runs a quick encryption search and manages to find the current password. The air traffic controller allows them into the city, made up of a skyline of factory towers surrounding a massive skyscraper called The Lighthouse, which adorns a large Pi emblem. It rains.

INT. STAIRWELL - DAY

Inside one of the factories, it's mealtime. Pi workers march up a spiral staircase. At the top of the staircase, a guard named WOLF (40) barks what everyone already knows: single-file by class, guards in front and clerics in back. Rii brings up the rear.

INT. MESS HALL - DAY

In a massive, spotless mess hall, the Pi workers eat their rations. Most workers eat in groups at long tables, doing what little socializing they are allowed. At the center of one table - in between
a group of people at each end - Rii eats alone. Her plate contains peanuts and seaweed. She also has a mug of hot water. The tabletop turns into a screen, and a news program called NEWS WARP starts playing.

INT. NEWS DESK - DAY

The anchors, PHILLIP O'REILLY and KELLY WIDASSIAN, introduce themselves. They have an awkward chemistry, and it's clear they know each other off-camera, too. The lead story of the night: the gathering of thousands on a massive space ship to pay tribute to Dean Murdoc, the so-called "Pi Prince" and son of Mother, who's been missing for several months after 'disappearing' during a test flight in space. Rumors are that Murdoc was abducted by members of a terrorist organization called the Black Sea Pirates.

INT. SPEECH HALL - DAY

The newscast cuts to a sound bite from Mother (60), in which she promises to drag the depths of the universe to find her son and the people responsible for his disappearance. Mother stands in front of a massive crowd of Pi associates who raise their fists in unison, pledging their allegiance to her.

EXT. PUB ROOFTOP - DAY
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A giant woman (50) leans against the roof’s edge and smokes a cigar under an awning while it rains. This is RICHIE, the pub owner. She wears a dirty, worn jumpsuit. Most of the rooftop is populated by a sprawling, but half-dead garden. Her peaceful smoke is interrupted when the winds whip up from Beck's Drifter descending upon the rooftop. The Drifter lands, the side slides open, and Beck steps out. Richie puts a large handgun to the back of his head. She wants some answers. Who is he, and why'd he squish her garden? Beck tests her hand, dodging his head. She fires. Quicker than humanly possible, Beck takes the gun and points it back at her. Beck explains that he was told to park there by his superior, a Pirate named Sullivan. Richie, unfazed, admits that she knows him.

INT. CELL - NIGHT

In a small, spartan cell, Rii lays on a mat and looks out her barred window at Norkos, shining behind rain clouds in the night sky. Mother's voice comes over the room, indicating the change of shift. One wall of Rii's cell becomes a monitor where a video of Mother plays, asking Rii to 'confess' what she could have done better for Mother that day. Rii plays along, admitting to feeling especially anxious. It's clear that the Mother in the video is a recording, set to react to Rii's 'confession.' It seems content, and they wish each other a good night. Rii returns to her mat momentarily before Wolf, the guard, lets himself into her cell. He's physically open and forward with her. She seems to like the attention, but isn't in the mood. He's not happy about it, but gives her something anyways: a peach. He takes a big, juicy bite out of it. Another guard's voice comes over Wolf's radio, stating that another worker is late for their shift and Wolf's assistance is
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requested in dealing with the matter. Wolf sets the peach on the windowsill before he departs, promising to be back.

INT. PUB - NIGHT

The place is dark and seedy with just enough light to see all the low-lives hanging about through the thick cloud of lingering smoke. It’s not too different from the bars we know, save for a three-dimensional version of pool where the pool balls float in all three axes inside of a liquid block from the floor to the ceiling. The players use tools that seem like a cross between a pool stick and a croquet mallet. In the corner, three guys play the blues. SILAS (50), a drunk with a full and surprisingly well-groomed beard, sits at the bar. He wears a flannel with the sleeves rolled up. He’s polishing off his latest drink. A cat, SPIKE, lays on the bar. Beck, looking over his shoulder, sits down at the bar beside Silas. He wears a black-and-white striped shirt, a trench coat, and a bandana around his head like an old train robber. Silas calls Richie over for a couple of beers. Beck orders a coffee, Richie scoffs, and walks away. Silas offers a beer to Beck, who turns him down flat. Beck gets up and leaves the bar.

EXT. PUB ROOFTOP - NIGHT

Beck leans against the roof's edge. HERO makes fun of Beck's interaction with Silas, and his incapability of making friends. HERO hides because Richie comes up to the roof. She's brought a coffee for Beck. She lights up a cigar. She says that Silas isn't such a bad guy, and that he was a
pioneer on Aezerea before Pi came. She says that she used to be a Pirate, too, but it just wasn't for her. She admits how happy being a simple pub owner makes her. She jokes about Norkos getting closer all the time. She finally leaves Beck to himself, assuring him that there's no hard feelings about the garden. The whole time Beck said one word. HERO reappears, harassing Beck for proving that he's incapable of even carrying a friendly conversation.

INT. PUB - NIGHT

Beck goes back down into the pub, determined to make friends with Silas. Beck offers to get their next round. They do proper introductions. Silas explains to Beck that, though they're in a society full of criminals, wearing a mask makes him look especially guilty, and the Aezerean Underground isn't a place you want to look guilty. When Beck asks Silas to explain what he means, Silas quietly tells him that isn't the time or the place to talk about it. Beck changes the subject and asks Silas about his life. Silas tells him about the way that Aezerea used to be. The great forests. How he was a farmer of Arboritium trees; a kind of tree with metal bark that can be persuaded into formations while growing and alive, but hardens into a highly-conductive solid metal upon death. He tells Beck how Pi came in and took over the market, clear-cutting Arboritium trees to use in their devices. How the forests have been raped of their nature, and damaged beyond repair. He tells Beck how most farmers and lumberjacks of Arboritium - against everything they stood for - went to work for Pi because there seemed like no other choice, but a small group managed to band together and form the Underground on Aezerea. But everything has already been taken from Silas. Beck asks him why he doesn't just leave Aezerea. Silas says
there's something keeping him there, but even if there wasn't, the universe is becoming the same everywhere. It's not a place for people like him anymore.

INT. CELL - NIGHT

Rii sleeps on the mat on the floor, but is woken up when the wall begins to flash a notification. Confused, she sits up. Sensing that she's awake, the wall begins to play a video. It's an educational video made by the company. An animated doctor tells Rii that she's pregnant! He then explains to her what that means, and tells her the "options" moving forward; most notably whether to have an abortion, and what sorts of uterine eugenic improvements to make to the child. All options come with prices that are implied to be massive financial burdens. Rii, overwhelmed, holds her stomach like she's going to be sick. The peach in the windowsill is browning.

EXT. STREET - NIGHT

Beck stands in line for egg rolls. One of many tiny shops. The strip is dark and wet, but lit by flashing neon lights. He looks around at the people on the street. Eugenics and body modifications are a common thing here. People are tall or muscular or have tails or horns or claws. By comparison, Beck is short, skinny, and plain.

INT. BECK'S DRIFTER - NIGHT
Beck watches out the transparent wall of the Drifter. Rain streaks down the side. The drops and traces reflect the neon lights of the street below. He looks at his own reflection, and holds his hands up behind his head, making crude horns or antlers. He asks HERO to run a search for a surgeon in the Underground, but HERO isn't able to find anything. HERO suggests asking someone where to find a surgeon.

INT. OFFICE - DAY

Rii sits at her desk. She works much more slowly than before. She nods off.

INT. MESS HALL - DAY

Rii pushes food around her plate. The intro to NEWS WARP plays. Rii runs from the table, covering her mouth.

INT. PUB - NIGHT

Beck and Silas drink and play 'pool.' LIONEL (40), a massive, brick house of a creature, bumps into Beck while he's taking a shot. Beck is drunk, and starts to get confrontational with Lionel, but Silas holds him back, suggesting they get out of there.
Beck shows Silas where he's been staying. Now that they have 'privacy,' Beck asks Silas what he meant about the Underground not being a place to look guilty. Silas tells Beck about MAMA LAIKA, the mythical gangster believed to control Aezerea's Underground from the shadows. Legends range from her being a witch, a werewolf, a failed science experiment, and everything in between. Though she never shows her face in public, her presence looms in the guise of her many "BOYS," teenagers that wear all-black and paint their faces as skulls, monsters, and more; omnipresent and watching over the streets of the Underground. Silas, knowing Pirates and their cause, asks Beck why he's on Aezerea. Beck orders HERO to appear, and HERO explains that Pi is planning to evacuate its machinery from Aezerea in the near future, but not its workers. Beck is there to find out why. Silas asks Beck why he didn't give HERO a name, as 'HERO' is his model name and not a given, familiar name. Beck has no reason other than to avoid attachment to him since he's 'just a machine.' This clearly hurts HERO's feelings, and Silas doesn't care much for that answer either. Before Silas leaves, Beck asks him if he knows where to find someone who knows where to find a surgeon. Silas dryly tells him to ask someone that actually has 'installations.' After Silas leaves, HERO tells Beck he's figured out why Pi is evacuating: Aezerea is slowly falling into its parent planet, Norkos, but he isn't quite sure yet how much time the moon has left.

END ACT 1
This is the text transcription of the artifact, “The Lone Leaf:”

The Lone Leaf

by Silas Hurst

Once upon a time in the shadow of an extra-ordinary, levitating mountain there laid a valley, and in that valley there stood an ordinary tree. Every year, the tree grew countless leaves that gathered light for it all through the bright, warm phase until the tree took the leaves’ life in preparation for the colder, sleeping spell ahead. The dried, paper leaves fell to the ground, never far from the tree, and dissolved into the soil on which the ordinary tree stood.

One season a leaf grew on the tree that was unlike all of the other leaves that season or any before. The leaf looked and shook and sounded the same as the rest, but inside of it there grew a great angst. None of the other leaves - content with gathering light for the tree - understood the leaf or even noticed it.

The leaf was alone.

By day, the levitating mountain looked down on the leaf through the clouds, and the leaf looked up to the mountain, obscured through the branches of the tree. By night, the leaf looked into the great, twinkling black sea above, and felt as if something might somehow understand the leaf.

One night, a magic wind blew in from the Northwest. It was warm, and whispered to the leaf: “You are different, young leaf. Come away with me before this tree uses up all of your life.”

The leaf was enraptured to hear the magic wind’s invitation, but responded: "I was born unto this tree. It has given me life, and so I owe my everything to it."
“All life is given. Those that truly possess it know that it is theirs and theirs alone,” said the magic wind.

“But how will I go? I am but a leaf here on this tree.”

“You are no more ‘but a leaf’ than I am but a breath. Let go, and let me lift you.”

“But why me, magic wind?”

“Because you are like me, and we are like no others.”

They blew away before the dawn, and when the morning light flooded the valley, no leaves missed the lone leaf that had gone, and neither did the tree.

With the magic wind’s help the leaf could fly wherever it wished, so they flew first over the valley hills towards the rushing crash that the leaf had heard ever since it could remember. They arrived at twisting waters, and the magic wind said: "This is the great river. It collects the heavens that the trees don’t drink, and carries it through the land so that the animals may live."

“Where does the river end?” asked the leaf.

The magic wind replied: “Far from here, the land sinks below the heavens, and the river flows like a ghost. This vast place is called the sea.”

To which the leaf asked: “What is a ghost?”

“A ghost is something that has life, but is not seen.”

“Does the river have a beginning?” asked the leaf.

“The river takes its form atop high mountains.”

The journey along the river was long, and by then the sky was turning warm and the light came to rest behind the levitating mountain.
The magic wind continued: “That is the highest mountain in the land. From the top, you can see the whole world move.”

The leaf replied: “I have always seen the light set behind the highest mountain, but this is the first time that I have seen its majesty.”

The magic wind said: “Majesty is freedom, and freedom is the world’s secret, natural magic.”

The magic wind’s words rang true to the leaf, as it could feel its own magic now, shimmering within.

“Then let us see the world’s majesty as the highest mountain does.”

That night the magic leaf and the wind crossed over the valley from which the leaf grew. Seeing the other leaves in their unknowing slumber, it seemed to the magic leaf like nothing was more true than the fact that it was indeed different; mistakenly born from the same, ordinary tree. Yet the magic leaf still felt an odd sense of longing when looking upon their likeness that it did not yet understand. It was a sympathy for simplicity; a pining for solace.

Morning’s light shed first on the extraordinary, levitating mountain, as it always did.

The magic leaf and the wind soared through the rolling forests at the foot of the levitating mountain. Alone, the great trees would have seemed to touch the sky, but they paled next to the colossal mountain. Here, the river fell from the levitating mountain’s edge to a beautiful lake amidst the trees, creating a never-ending rainbow over the wood.

The magic leaf and the wind ascended the rocky facade of the levitating mountain. Many creatures, despite the mountainside’s perilous, icy gusts, traversed its steep, ordinary face with ease and called it their home.
But as the magic leaf and the wind grew nearer to the peak, there were no more plants or animals; only ice and stone. The tree from which the leaf came was an impossible speck of dust. Even the great trees at the levitating mountain’s foot swayed like blades of grass. The river’s beginning had since past.

The higher the magic leaf and the wind ventured, the harder the icy gusts blew, until the magic leaf realized it was no longer being lifted by his companion, the wind. It was then, in that moment of doubt, that the icy gusts carried the magic leaf away from the mountain’s surface.

“Magic wind! Magic wind!” the magic leaf cried out. “Where are you?”

An icy gust howled: “You are alone, leaf. There is no magic here.”

The leaf knew within itself that the icy gusts were wrong, and it flew, lifted by its own majestic, natural magic, through the ceiling of dark clouds that obscured the extraordinary peak. Above the clouds’ surface, the levitating mountain was still and silent. The clouds, silver from above, washed slowly around the peak like a stone in the river. The magic leaf could see the whole world moving, and could feel what it knew to be the wind’s spirit sweeping across the land. A distant break in the clouds revealed the horizon, and the magic leaf saw the sea for the first time.

Figure 1.6

This is the text transcription of the artifact “Serious Incident Report #347309:”

CLASSIFICATION: TS

SUMMARY: Confrontation with as-yet-unknown alien force.
EARTH DATE & TIME (EST) OF INCIDENT: 07.04.20.0900
UNIT: ISMS Erasmus
OIC: CDR Richard Stone
LOCATION: 03.47.18.93.23.90
Personnel involved: 323
NUMBER OF INJURED: 13
FATALITIES: 310
PUBLICITY: None.
ACCIDENT CLASS: SC
WEATHER: Low Visibility, Plasmatic Clouds/Lightning.
VISION DEVICE(S): Radar, Sonar, Optical, Digital.
MILITARY INSTALLATION: N/A
EXPLOSIVE / HAZARDOUS MATERIAL: Nuclear and Plasma. All deployed.
VIDEO OF DISTURBING SCENE: Destroyed.
TYPE MISSION: Exploratory
POC: Dean Murdoc, Pilot Officer
NARRATIVE:

Immediately after landing from interstellar drift, the ISMS Erasmus came into contact with an as-yet-unknown alien Being that was traveling, unassisted, through outer space within the immediate vicinity of the Erasmus’ landing position. The Being was initially shrouded by a plasmatic cloud, but soon thereafter manifested from aforementioned cloud, resembling at first an Earth whale and then a squid. In an act of preemption, Commander Stone ordered the launch
of a nuclear missile at The Being, which seemed entirely unfazed by the blast. The Being, probably in defense, attacked the Erasmus. Its limbs moved through the hull as if unaffected by solid matter. Those crew members that came into contact with any part of The Being seemed to perish instantly of electrocution, burn, or both. The Being showed no sign of relenting. As a last resort, the decision was made to separate the main officers’ cabin from the engine bay, and to detonate the plasma engine therein. The ensuing blast proved costly to the ship and remaining crew, but The Being was presumably destroyed. The total encounter lasted only but a quarter of an hour. All communications were down, and the Erasmus had no means of propulsion. The Erasmus floated in space for approximately 18 hours before being rescued by the ISMS Remender, at which point many of the crew that survived the initial attack had since perished from radiation exposure.

AUTHENTICATION: Interstellar Military Service

Figure 1.7

This is the text transcription of artifact “Worker Information Sheet RI1:”

Pi, Inc. Aezerea Satellite

Worker Information Sheet (WIS):

*Dates Denoted in Earth Equivalent (EE) Years

Identification Number: RI1
WAVES: A DIGITAL COMIC PROJECT

Placement : Clerical
Living Cell/Contact No : 47
Birth Date : 03.14.99
Death Date : NA
Familiar Name : River Hurst

Mother
Identification Number : A62
Placement : Clerical
Birth Date : 06.23.72
Death Date : 03.14.99
Familiar Name : Anna Grimes

Father
Identification Number : 7SY
Placement : Welder
Birth Date : 07.17.69
Death Date : NA (RUNAWAY)
Familiar Name : Silas Hurst
Section 2

The second section refers to images used in and around the website, including those used in artifacts and still panels.

Figure 2.1

This is the site logo created for the website. It is a .gif file and the letters that spell “WAVES” slowly wash in and out over the span of several seconds.

Figure 2.2

This is the favicon logo I created for the website:
Figure 2.3

This is the starfield image used as the background of the website.

Figure 2.4

This is the emblem created to represent the information technology corporation, Pi.
Figure 2.5

These are the four pages of “The Lone Leaf” artifact, ‘written’ by the character, Silas Hurst.

Once upon a time in the shadow of an extraordinary, levitating mountain there laid a valley, and in that valley there stood an ordinary tree. Every year, the tree grew countless leaves that gathered light for it all through the bright, warm phase until the tree took the leaves’ life in preparation for the colder, sleeping spell ahead. The dried, paper leaves fell to the ground, never far from the tree, and dissolved into the soil on which the ordinary tree stood.

One season a leaf grew on the tree that was unlike all of the other leaves that season or any before. The leaf looked and shook and sounded the same as the rest, but inside of it there grew a great angst. None of the other leaves - content with gathering light for the tree - understood the leaf or even noticed it.

The leaf was alone.

By day, the levitating mountain looked down on the leaf through the clouds, and the leaf looked up to the mountain, obscured through the branches of the tree. By night, the leaf looked into the great, twinkling black sea above, and felt as if something might somehow understand the leaf.

One night, a magic wind blew in from the Northwest. It was warm, and whispered to the leaf: “You are different, young leaf. Come away with me before this tree uses up all of your life.”
The leaf was enraptured to hear the magic wind's invitation, but responded: "I was born unto this tree. It has given me life, and so I owe my everything to it."
"All life is given. Those that truly possess it know that it is theirs and theirs alone," said the magic wind.
"But how will I go? I am but a leaf here on this tree."
"You are no more 'but a leaf' than I am but a breath. Let go, and let me lift you."
"But why me, magic wind?"
"Because you are like me, and we are like no others."
They blew away before the dawn, and when the morning light flooded the valley, no leaves missed the lone leaf that had gone, and neither did the tree.
With the magic wind's help the leaf could fly wherever it wished. So they flew first over the valley hills towards the rushing crash that the leaf had heard ever since it could remember. They arrived at twisting waters, and the magic wind said: "This is the great river. It collects the heavens that the trees don't drink, and carries it through the land so that the animals may live."
"Where does the river end?" asked the leaf.
The magic wind replied: "Far from here, the land sinks below the heavens, and the river flows like a ghost. This vast place is called the sea."
To which the leaf asked: "What is a ghost?"
"A ghost is something that has life, but is not seen."
"Does the river have a beginning?" asked the leaf.
"The river takes its form atop high mountains."
The journey along the river was long, and by then the sky was turning warm and the light came to rest behind the levitating mountain.
The magic wind continued: “That is the highest mountain in the land. From the top, you can see the whole world move.”

The leaf replied: “I have always seen the light set behind the highest mountain, but this is the first time that I have seen its majesty.”

The magic wind said: “Majesty is freedom, and freedom is the world’s secret, natural magic.” The magic wind’s words rang true to the leaf, as it could feel its own magic now, shimmering within.

“Then let us see the world’s majesty as the highest mountain does.”

That night the magic leaf and the wind crossed over the valley from which the leaf grew. Seeing the other leaves in their unknowing slumber, it seemed to the magic leaf like nothing was more true than the fact that it was indeed different; mistakenly born from the same, ordinary tree. Yet the magic leaf still felt an odd sense of longing when looking upon their likeness that it did not yet understand. It was a sympathy for simplicity; a pining for solace.

Morning’s light shed first on the extraordinary, levitating mountain, as it always did.

The magic leaf and the wind soared through the rolling forests at the foot of the levitating mountain. Alone, the great trees would have seemed to touch the sky, but they paled next to the colossal mountain. Here, the river fell from the levitating mountain’s edge to a beautiful lake amidst the trees, creating a never-ending rainbow over the wood.
The magic leaf and the wind ascended the rocky facade of the levitating mountain. Many creatures, despite the mountainside's perilous, icy gusts, traversed its steep, ordinary face with ease and called it their home.

But as the magic leaf and the wind grew nearer to the peak, there were no more plants or animals; only ice and stone. The tree from which the leaf came was an impossible speck of dust. Even the great trees at the levitating mountain's foot swayed like blades of grass.

The river's beginning had since past. The higher the magic leaf and the wind ventured, the harder the icy gusts blew, until the magic leaf realized it was no longer being lifted by his companion, the wind. It was then, in that moment of doubt, that the icy gusts carried the magic leaf away from the mountain's surface.

“Magic wind! Magic wind!” the magic leaf cried out. “Where are you?”

An icy gust howled: “You are alone, leaf. There is no magic here.”

The leaf knew within itself that the icy gusts were wrong, and it flew, lifted by its own majestic, natural magic, through the ceiling of dark clouds that obscured the extraordinary peak.

Above the clouds' surface, the levitating mountain was still and silent. The clouds, silver from above, washed slowly around the peak like a stone in the river. The magic leaf could see the whole world moving, and could feel what it knew to be the wind's spirit sweeping across the land. A distant break in the clouds revealed the horizon, and the magic leaf saw the sea for the first time.
Figure 2.6

These are the two pages of the “Serious Incident Report #347309” artifact.
EXPLOSIVE / HAZARDOUS MATERIAL:
Nuclear and Plasma, All deployed.

VIDEO OF DISTURBING SCENE:
Destroyed.

TYPE MISSION:
Exploratory

POC:
Dean Murdock, Pilot Officer

NARRATIVE:
Immediately after landing from interstellar drift, the IAMS Erasmus came into contact with an as-yet-
unknown alien Being that was traveling, unassisted,
through outer space within the immediate vicinity of
the Erasmus' landing position. The Being was initially
shrouded by a plasmatic cloud, but soon thereafter
manifested from aforementioned cloud, resembling at
first an Earth whale and then a squid. In an act of
preemption, Commander Stone ordered the launch of a
nuclear missile at The Being, which seemed entirely
unfazed by the blast. The Being, probably in defense,
attacked the Erasmus. Its limbs moved through the hull
as if unaffected by solid matter. Those crew members
that came into contact with any part of The Being
seemed to perish instantly of electrocution, burn, or
both. The Being showed no sign of relenting. As a last
resort, the decision was made to separate the main
officers' cabin from the engine bay, and to detonate
the plasma engine therein. The ensuing blast proved
costly to the ship and remaining crew, but The Being
was presumably destroyed. The total encounter lasted
only but a quarter of an hour. All communications were
down, and the Erasmus had no means of propulsion. The
Erasmus floated in space for approximately 18 hours
before being resued by the IAMS Remender, at which
point many of the crew that survived the initial attack
had since perished from radiation exposure.

AUTHENTICATION:
WAVES: A DIGITAL COMIC PROJECT

Figure 2.7

This is the “Worker Information Sheet: Ri1” artifact.
Figure 2.8

This is a still frame from panel 1.1, which is a video panel.
Figure 2.9

This is panel 2.1, which is a .gif panel, showcasing the violent shaking of the ship and the flashing alarm.
Figure 2.10

This is panel 2.2, which is another .gif panel, showcasing the flashing alarm, the electricity strung between HERO’s antennas, and the way that his ring breathes in and out.

To my knowledge, all organisms expire eventually, Master Beck.
Figure 2.11

This is panel 2.3.
Figure 2.12

This is panel 2.4.
WAVES: A DIGITAL COMIC PROJECT

Figure 2.13

This is panel 2.5.
Figure 2.14

This is panel 2.6.

HERO... WHAT HAPPENS IF I THROW UP IN MY HELMET?

Depends on how much you throw up, sir.
A lot, and you could drown.
A little, and you’ll just be in grave need of a wash.
Figure 2.15

This is panel 2.8.
Figure 2.16

This is panel 2.9

YOU REMEMBER THE ACADEMY?

Should I not, sir?

HOW'S THE AIR?

Pressure is low, but rising toward optimal levels.
Temperature is quite warm, but-
Figure 2.17

This is panel 2.10.

"Cut the shit, hero. Can I breathe??"

"Uh, well, you should be able to, sir..."
Figure 2.18

This is panel 2.11.
Figure 2.19

This is panel 2.12.
Figure 2.20

This is panel 2.13.
Figure 2.21

This is panel 2.14.
Figure 2.22

This is panel 2.15.
Figure 2.23

This is panel 2.16.

Well, sir, I must account for the faint possibility of trace unknown gases, which would almost certainly prove toxic to your human respiratory system, which is - no offense, sir - *quite* fragile, universally speaking.

I'll collect air samples in the event you should perish sometime soon.

THANKS, HERO. I'D HATE FOR MY DEATH TO GO UNDOCUMENTED.

Don't worry about it, sir.
WAVES: A DIGITAL COMIC PROJECT

Section 3

The third section refers to artwork as it was scanned into the computer, before manipulation in Adobe Photoshop, Illustrator, and After Effects.

Figure 3.1

This is the illustration of Beck from panel 2.1
Figure 3.2

This is the illustration of Beck from panel 2.3.
Figure 3.3

This is the illustration of Beck from panels 2.4 and 2.5.
Figure 3.4

This is the illustration of the outline of Beck’s visor, used in panel 2.6.
Figure 3.5

This is the illustration of the Heads-Up Display (HUD) crosshairs, used in panel 2.6.
Figure 3.6

This is the illustration of Beck used in panel 2.7.
Figure 3.7

This is the illustration of Beck used in panel 2.8.
Figure 3.8

This is the illustration of Beck used in panel 2.9.
Figure 3.9

This is the illustration of Beck used in panel 2.10
Figure 3.10

This is the illustration of Beck used in panel 2.11.
Figure 3.11

These are the illustrations of Beck used in panel 2.12.
Figure 3.12

These are the illustrations of Beck used in panels 2.13 and 2.14.
Figure 3.13

This is the illustration of Beck used in panel 2.15.
Figure 3.14

These are the illustrations of Beck and HERO used in panel 2.16.
Figure 3.15

This is the illustration of HERO used in panel 2.2.
Figure 3.16

This is the illustration of HERO used in panel 2.3.
Figure 3.17

This is the illustration of HERO used in panel 2.4.
Figure 3.18

This is the illustration of HERO used in panel 2.6.
Figure 3.19

This is the illustration of HERO used in panel 2.8.
Figure 3.20

This is the illustration of HERO used in panel 2.9.
Figure 3.21

This is the illustration of HERO used in panel 2.10.