Multi-Media Narratives:
The Videogame in an Emerging Mega-Literacy

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The history of popular entertainment has seen an identifiable progression that initially began with a single narrative existing in a single media format and this has evolved to a state today in which multiply themed narratives are reproduced in multiple media formats. For example, Homer's *Odyssey* began as an epic tale in the oral tradition, which was then transcribed into text and can now be found in multiple media forms—films, comic books, children's books, and cartoons. Within each of these media, the actual narrative changed little except where it had to adapt to the constraints of each format. Also consider *Peter Pan*, which began as a play, became a children's book, and was then turned into both animated and live-action formats. While the narrative stayed fairly consistent throughout these different transitions, the popularity of *Peter Pan* allowed the narrative to branch out in different ways. For instance, a cartoon version entitled *Fox's Peter Pan and the Pirates* expanded on the traditional *Peter Pan* narrative, adding new stories to the same time frame. There are also spin-offs that use the same world, but change the characters, such as *Hook* and *Peter Pan: Return to Neverland*. The new media format continues to use the same worlds, characters, and scenarios that were introduced in the original narrative and medium; however, because of the episodic nature of these narratives, each medium's narrative is independent of those being told in other media.

This media transference process makes good sense from both a business and a social perspective—the entertainment industry can take advantage of evolving media, transferring a narrative from one medium to another, based on the assumption that the narrative's fan base will make the jump, following the narrative to other media forms, thus ensuring instant customers for new media commodities. In their book *Remediation: Understanding New Media*, Bolter and Grusin explore the ways in which media evolve for differing purposes and ends:

> No medium today, and certainly no single media event, seems to do its cultural work in isolation from other media, any more than it works in isolation from other social and economic forces. What is new about new media comes from the particular ways in which they refashion older media and the ways in which older media refashion themselves to answer the challenges of new media. (15)

Thus, the changing faces of these narratives are closely related to the ways and reasons that media change dynamically. In the examples provided above, the texts that contained the narrative went through a remediation process in order to create and market a new commodity.

The entertainment industry has recently begun to create continuous narratives that span the multiple types of media available—a new type of remediation that affects that narrative in different ways. Traditionally, narratives have been self-contained within a single media that required literacy limited to that artifact (e.g. novels, movies, videogames, etc). Even if narratives did cross media, such as a videogame becoming a movie (e.g. *Tomb Raider*), the narratives themselves were episodic—the newest medium's narrative was independent from the previous medium's narrative. Thus, a viewer could easily understand the film *Final Fantasy* without having played the preexisting videogames or read the preexisting comics. This was not the case when the entertainment industry began introducing single narratives that crossed various media-genres, a story-telling technique that requires the audience to develop and deploy multiple literacies in order to follow a single story. I call the interpretive skill such narratives require "mega-literacy"—an emergent form of narrative literacy that, in the next five years, will not only be an important skill, but a necessary one. In fact, in their article "A Pedagogy of Multiliteracies: Designing Social Futures," The New London Group argues that audiences already have to employ mega-literacy skills when reading a text:

> Now becoming increasingly important are modes of meaning other than Linguistic modes, including Visual Meanings (images, page layouts, screen formats); Audio Meanings (music sound effects); Gestural Meanings (body language, sensuality); Spatial Meanings (the meanings of environmental spaces, architectural spaces); and Multimodal Meanings. Of the modes of meaning, the Multimodal is the most significant, as it relates all the other modes in quite remarkably dynamic relationships. For instance, mass-media images relate the linguistic to the visual and to the gestural in intricately designed ways. (28)

The idea of reading contemporary media with only a single literacy may have once been possible; however, such readings are now impossible, as multiple media literacies are needed to understand

today's mass media landscape. This landscape becomes more complicated when single narratives span multiple media.

In this paper, I define mega-literacy as the ability to read across different modes and create meaning (as discussed by The New London Group). Mega-literacy is a reader's skill that is based on a complex set of cultural practices. Multi-genre narratives are being created with the specific skill of mega-literacy in mind—a mega-literacy text. One such example of this emerging mega-literacy is Japan's *Martian Successor Nadesico* (Kiko Senkan Nadesico, 1996). First conceived by the popular Japanese manga artist Kia Asamiya[1], this series became a 26-episode animation series produced by Xebec (1996). When the animation series ended, production began on a feature-length movie. While the movie was in production, the story continued in the form of two novels (published in 1998) and then a feature-length animated movie (released in late 1998) began where the novels ended. This highly successful movie's cliffhanger provides the starting point of a role-playing game (RPG) for the Sega Dreamcast console (1999). The game concludes the story. Xebec's marketing ploy ensured that the audience of *Martian Successor Nadesico* was compelled to invest in new types of media in order to follow the entire story line to its conclusion.

This new type of cross-media narrative is not unique to Japan. A North American example can be seen in *The Matrix*, which was released as three successive movies interspersed with animation shorts (The *Animatrix*) and a videogame. Both the animation shorts and the videogame fill in important background information and introduce the new characters that appear in the second movie. Therefore, while the audience can understand *The Matrix* series without watching *The Animatrix* or playing the videogame, the narrative gaps that occur between the first and second movies detract from a full appreciation of the narrative and can only be filled by participating in the other two media formats. Amazon.com's videogame advertisement emphasizes this very fact: "Players will see, only after playing the game, that their actions in the game can actually have an effect on the movie *The Matrix Reloaded*." The storyline of *The Matrix* can only be fully experienced if the audience participates in all three media in a linear and consecutive manner—*The Matrix* (1999—feature-length live action film), *The Animatrix* (2003—feature-length collection of animated shorts), *Enter the Matrix: The Videogame* (2003—cross-formatted action game intended for PlayStation 2, X-box, and PC), *The Matrix: Reloaded* (2003—feature-length live action film), and *The Matrix: Revolutions* (2003—feature-length live action film).

This practice is not limited to a linear/consecutive model of narrative storytelling. Japan's *.hack//SIGN*[2] animation-game-comic series has developed a non-linear and concurrent narrative in which the audience must participate in the literacies of animation (TV-episode and feature-film lengths), videogames, and comics simultaneously. This requires the audience to be competent or to develop competency quickly in multiple literacies in order to fol-

low the complete narrative. Furthermore, the literacies of *.hack//SIGN*, whether videogame, comic, or animation, all require the reader to understand computer game literacy, as the narrative is about computer games.

Indeed, the complicated roles that the videogame plays in this evolving mega-literacy demands closer inspection. Thus, this essay, while also discussing media forms, will primarily focus on the videogame, mainly because of the intriguing possibilities, questions, and complications to mega-literacy raised by the role that the videogame plays in the multi-modal narrative. In particular, I investigate the unique role that video games play in mega-literacy and consider the implications of this role. I argue that the emergence of a mega-literacy complicates traditional forms of literacy such as print-based literacy, forcing a re-evaluation of the privileged forms of literacy. Before I address these issues, however, I want to first explain what I mean by "literacy," and briefly discuss how mega-literacies challenge audiences to read across different semiotic domains.

Defining Literacy/Negotiating Signs

The term "literacy" is historically resistant to being defined. Indeed, Darsie Bowden asserts that the term resists definition because of the many political factions attempting to use literacy for their own ends: "Because literacy agnostically and antagonistically inhabits both popular and academic spheres, an uncontroversial definition is difficult to come by" (140). The popular sphere believes that literacy is a learnable and measurable skill, essentially interpreting literacy to mean reading and writing competency[3]. Academia suffers a similar problem when defining literacy, although there have been attempts to expand the definition of literacy to encompass more than print-based reading and writing. Anne Wysocki and Johndan Johnson-Eilola present an abbreviated list that includes some of the more common types of technology-based literacy that are regularly invoked: "visual literacy, video literacy, media literacy, multimedia literacy, television literacy, technological literacy" (349). Following this list, Wysocki and Johnson-Eilola further note the difficulty of using the term "literacy." They argue that the term is often paired with other terms without a full exploration of literacy's connotations, which perpetuates a dangerous apolitical perspective of literacy.

The emergence of a mega-literacy complicates the literacy debates. A mega-literacy requires the audience to read different media (e.g. print literacy, book literacy, movie literacy, videogame literacy) by collapsing them into a unified literacy that is recursive and interdependent, founded and built on its own set of ideologies and signs that repeat throughout the narrative. In short, the individual parts of the mega-literacy cannot be separated from the whole. To ignore one of the media literacies is to ignore an entire section of an otherwise cohesive story, a section that importantly develops the ideologies and signs that are necessary for making

sense out of the story. While the reader can still be literate in the separate parts of the mega-literacy, the reader's ability to participate as a fully literate audience of a mega-literacy based narrative is disabled; such readers are, to an extent, illiterate. A mega-literacy is greater than the sum of its parts; a mega-literacy is creating structures and maps of meanings that it employs and develops across the different media literacies. To illuminate these ideas, I will turn to semiotics to develop my definition of literacy, as semiotics is concerned with signs, cultural ideologies, and "maps of meaning" (Hall 513).

Semiotics is the ability to decode and recode ideologically laden signs within particular cultural systems—what James Paul Gee calls "semiotic domains." Gee explains that a semiotic domain is "any set of practices that recruits one or more modalities (e.g., oral or written language, images, equations, symbols, sounds, gestures, graphs, artifacts, etc.) to communicate distinctive types of meanings" (18). Stuart Hall, in his essay "Encoding, Decoding," proposes that meaning making goes through three stages: encoding (the creation of meaning), 'meaningful' discourse (the artifact of assembled language), and decoding (the interpretation of the meaning). Both the encoding and decoding processes are dependent on a hegemonic structure that includes frameworks of knowledge, relations of production, and technical infrastructure (510). Furthermore, the signs that convey meaning are not limited to a specific semantic paradigm (such as verbal language), but also cross paradigms to include those that are visual, auditory, kinesthetic, and so on. This is vitally important for a mega-literacy, which relies on the ability of signs to cross semantic paradigms in order to convey the meaning of the narrative.

Hall's theory of communication is demarcated into four stages—production, circulation, consumption, and reproduction—and he treats each stage as fairly autonomous from the others. Each stage of communication, according to Hall, remains connected to a larger ideological system, yet each one also has its own modality and conditions of existence (508). Because each stage can be isolated as an independent variable, the four-stage model allows multiple readings and interpretations within its designated parameters. The parameters are useful because they enable communicators to view the parts within the whole—"meanings and messages in the form of sign vehicles of a specific kind organized, like any form of communication or language, through the operation of codes within the syntagmatic chain of a discourse" (Hall 508). If the chain is disrupted, if the encoder and the decoder lack equivalence on both sides of an exchange and what is intended during the encoding process is different from what is discerned during the decoding process, then meaning-making breaks down and misunderstandings occur.

Expanding this chain to include the many different media in a mega-literacy, we see that the chain that creates the mega-literacy is fragile and easily disrupted. A break in the mega-literacy also means that the signs and ideologies that are developed in the miss-

ing part are left out of the narrative; thus, the decoders will not have all of the information needed for equivalence with the encoders, which will lead to a misunderstanding of the narrative. There are many causes for these breaks in the mega-literacy: the decoder may choose not to learn the literacy; one of the media, such as videogames, can become outdated or inaccessible; a particular medium might not be available in certain countries; or some of the media may be cost prohibitive. Consequently, the reader or decoder misunderstands the parts of the mega-literacy's narrative. It is important here to note that misunderstanding does not mean non-understanding. Rather, the decoding process is compromised by the lack of literacy in one part. As a result, the audience who cannot read a certain part of a multi-genre narrative—who lacks mega-literacy skills—is denied access to the narrative in its entirety, and by extension, is denied access to the knowledge that the narrative contains.

If the meaning chain of a mega-literacy is this tenuous, then it begs the question: what part of semiotic literacy is essential for the consumer of the mega-literacy, and how can it address the multiple media-genre parts? For consumers of the mega-literacy, the process of deducing or recognizing what is meaningful discourse creates the foundation of literacy within the mega-literacy: "[meaningful discourse] must first be appropriated as a meaningful discourse and be meaningfully decoded. It is this set of decoded meanings which 'have an effect', influence, entertain, instruct or persuade, with very complex perceptual, cognitive, emotional, ideological, or behavioural consequences" (Hall 509). The effects and consequences of decoding meaningful discourse pertain to the development and naturalization of icons and ideologies that are recoded (encoded) into new meaningful discourse. The encoding and recoding process inevitably "contract[s] relations for the sign with the wider universe of ideologies in a society. These codes are the means by which power and ideology are made to signify in particular discourses" (513). These codes are then written into our sense of social reality, creating 'maps of meaning' between existing ideologies.

These maps of meaning all exist within the same hegemonies and ideologies. As such, the semiotic codes that exist within the maps of meaning share representations, meanings, and icons, all of which can cross media-genres. Thus, the artifacts that create the parts of a mega-literacy text (books, comics, videogames, animation) exist within the same cultural system—the same maps of meaning—and, therefore, the different types of literacies required for participation in a mega-literacy share a series of common signs and ideologies that are naturalized[4] under a larger cultural umbrella[5]. A mega-literacy narrative can begin with a comic and follow its trajectory across novels, movies, and videogames while utilizing similar codes to construct meaning. All of this adds coherency to a mega-literacy narrative. No longer can the different media be considered as isolated parts of a storyline, for they are now reframed as recursive and interwoven codes that create meaning— that create the language that a mega-literacy reads.

Considering the Videogame

The implications of this multi-genre mega-literacy are many. Audiences are placed into a position in which they must negotiate various literacies at the same time; some of these audience members may have experience in such negotiation, having already read novels or comic books, watched movies, played videogames, and otherwise simultaneously participated in a variety of other media. Others, however, may not have had exposure, opportunity, or desire to leave the media-genres with which they are comfortable engaging. Because it is the newest of media format, the videogame is frequently the missing link for audiences negotiating the mega-literacies of *The Matrix*, *Martian Successor Nadesico*, and other emergent new media texts.

The role that videogames play in a mega-literacy is especially noteworthy when considering the types of literacies needed to participate in the semiotic domain of videogames. After all, as James Paul Gee succinctly states: "When people learn to play video games, they are learning a new *literacy*" (13). The new literacy of videogames contains familiar elements, such as linguistic literacy of words and their written signifiers, visual literacy of images and space, and additionally, new elements that require the audience to act upon both words and images: gameplay[6].

Gameplay is rather difficult to define. This is because definitions of gameplay usually attempt to contain all types of videogames and computer games[7] in one all-encompassing turn of phrase. Andrew Rollings and Ernest Adams, for example, suggest that gameplay is "[o]ne or more casually linked series of challenges in a simulated environment" (201). This definition implies action on the part of the player, interacting with the game via some form of interface (keyboard, controller, joystick, etc). Thus, the audience is no longer traditionally reading the text. They are still actively decoding a narrative, but the audience then acts on the text in very concrete ways. However, just because the audience is acting upon the text does not mean that they become a "writer." They are encoders, but they are encoding within the closed system of the videogame with limited programmed actions that are encoded by programmers (with the exception of a few games such as *Black & White*). Thus, part of the problem in defining gameplay is addressing the changing role of the audience as both a decoder and an encoder who is able to act within closed systems.

Gameplay literacy is also daunting to define because of the many micro-literacies it requires. In addition to traditional forms of narrative consumption such as reading and watching cinema, gameplay also entails the following:

> *The player must be literate in visual interface so that they can understand everything at a glance;
> *The player must be literate in controller design in order to manipulate the game correctly, as well as understand force feedback controllers, dance pads, digital cameras, and so on;

*The player must read and act upon the challenges that must be overcome while understanding the rules and codes of the simulated world;
*The player must be able to "read" the aural or musical codes that foreshadow certain events;
*The player must be able to strategize their play—not only reading in the moment, but planning future interactions and actions as well;
*The player must know operating system literacies, such as loading, saving, and continuing the game;
*The player must understand artistic literacy, such as perspective and color schemes;
*The player must be versed in narrative genre literacies, such as the conventions of mystery novels and how those conventions translate into a videogame.

In order to answer my earlier question of whether videogames play a unique role in a multi-genre mega-literacy, I would like to turn to Theodor Adorno and Max Horkheimer's re-articulation of Wagner's concept *Gesamthunstwerk*:

> *Gesamthunstwerk*—the fusion of all the arts in one work. The alliance of word, image, and music is all the more perfect than in *Tristan* because the sensuous elements which all approvingly reflect the surface of social reality and in principle embodied in the same technical process, the unity of which becomes its distinctive content. This process integrates all the elements of the production, from the novel (shaped with an eye to film) to the last sound effect. (33)

Here, Adorno and Horkheimer are drawing on opera theory to make sense of film within a mass media culture, but videogames go a step further. Videogames, like film, fuse the word, image, and music of traditional arts; moreover, videogames bring interaction and performance into *Gesamthunstwerk*. Videogames are the amalgamation of the different arts and their literacies—this amalgamation constitutes the mega-literacy, requiring the audience to participate within the narrative as a whole.

The Place of Videogames in a Multi-media Narrative

Because of the groundbreaking role that it has played as the first popular linear multi-media mega-literacy, I first look at *Martian Successor Nadesico*, specifically focusing on the role that videogames play in this particular mega-literacy. Kia Asamiya, the original creator of *Nadesico*, is one of the leading manga (comic) artists in Japan. Almost all of his work has been converted to television anime series or movies. Unsurprisingly, the four-part manga series *Nadesico* followed the same trajectory, becoming a twenty-six episode television anime series. The manga and anime use the same characters and relationships. However, the interaction

between the manga and the anime, in this case, is not part of a cross-genre mega-literacy. Even though they share the same characters, neither the manga nor the anime share the same narrative story arc; each is a discrete literary experience. The anime ran its scheduled twenty-six-episodes and the narrative seemed to wrap itself up. But *Nadesico* did not, in fact, end here.

With an innovative story line that included references to the manga/anime culture as a whole, *Nadesico* enjoyed tremendous popularity, first in Japan, then in the U.S. Fan fiction[8] exploded on the Internet as fans of this series explored the possible futures of their favorite characters. Based on the popularity of *Nadesico*, the original producers continued the story in the form of novels where the anime left off. Moving from manga or anime to novels is one of the most common movements in the Japanese entertainment industry, a decision that is arguably driven by economic rather than artistic motives.

For example, in Japan, successful popular manga-artists, like successful popular novelists, demand high salaries, and some of the wealthiest people in Japan are manga artists[9]. Furthermore, manga publications typically go through two stages: chapter publications in weekly or monthly manga magazines followed by graphic novel collections in which five to six chapters are collected and republished. In addition to the cost of manga production, the production costs of anime are monumental, averaging $800,000-2.5 million for a 26-episode anime series and $18-20 million for a movie ("Anigearnet"). The budget includes but is not limited to producers, directors, screenwriters, character designers, animation artists, sound technicians, voice actors, among others. Following this, the producers must find and pay for time slots on television, market the anime, find sponsors, and begin planning for DVD releases. Comparatively, the cost of novels is fairly inexpensive, requiring only a ghostwriter and an editor during the production stage.

Typically, this type of mega-literacy has stopped with the book publication. Such was not the case with *Martian Successor Nadesico*. This series commanded considerable popular attention; hence, a full-length animated movie—*Nadesico: Prince of Darkness*—was released in theaters, beginning its story where the books ended. Remarkably, this film ends with a cliffhanger—main characters may be dead, spaceship crews are in turmoil, prominent characters are shrouded in a tragic mystery and this fact makes the *Nadesico* franchise particularly exemplary of the mega-literacy phenomenon. This cliffhanger is finally resolved in a Sega RPG videogame. Thus, for *Martian Successor Nadesico* fans to follow the narrative to its conclusion, they must become players of the videogame. That is, they must practice their videogame literacy.

Learning a new literacy is demanding. If audience members of *Martian Successor Nadesico* have never played computer or videogames before, they can still play this game and learn the literacy as they go along. However, such players will likely miss many of the references that experienced players understand. Conversely, inexperienced players may see things that experienced

players might miss, as many experienced players tend to "skim" the text based on their assumptions about the text. Regardless, the ways in which *Martian Successor Nadesico* creates a scaffold for videogame literacy within the mega-literacy is quite ingenious. The order that the narrative is presented begins with low demands on the audience's literacy. The mega-literacy begins with a television anime[10]—twenty to twenty-five minute episodes are used to establish the main plot and character relationships wherein the signs, icons, ideologies, characters, plot development, and history are established. As a result, when the narrative moves into its textual form (novels), the narrative already has a semiotic foundation. The novels then increase the demands placed on the audience, requiring them to read text and interpret the same semiotic information within a new semiotic domain. Reading the novels gives the audience two different types of knowledge: (1) understanding of how the story progresses and (2) expanding definition of how the new information affects maps of meaning as they relate to the *Martian Successor Nadesico* narrative.

With the release of the full-length animated feature, the narrative's medium changes once again, placing new literacy demands on the audience. The narrative foundation is expanded, and the full-length animated feature returns to a film-based literacy that is already familiar because of the anime series. However, the difference between the television anime and the full-length animated feature film is the time investment required of the audience. The film requires the audience to participate for a longer time in a single sitting while relying on the information the audience has already garnered from the other media to present a more wholly realized narrative than can usually be accomplished in the two hours provided by a full-length feature.

Because the movie ends in a cliffhanger, the audience is compelled to follow the narrative to the videogame medium if they are invested in the narrative's conclusion—a transition that is accomplished in a relatively smooth manner. For an RPG videogame, the audience must be literate in multimodal literacies as The New London Group describes. If they have followed the mega-literacy from the beginning, then they have training in reading both from anime and novels. Also, if the audience started with the manga, something that is not necessary for the actual mega-literacy, then they have also had training in combining both the visual and textual. Furthermore, participating in the different media-genres has also helped to establish and reinforce the icons and ideologies that control the narrative so that the audience does not have to be (re)situated in these semiotic domains.

As a result, when the audience begins to play the videogame, the demands on them in learning a new literacy are substantially diminished. Gameplay is the final literacy component that must be mastered before the audience, now the player, can read the narrative to its conclusion, and the reading itself takes on an interactive role with the player. Thus, the very linear/consecutive model of narrative storytelling works to train the audience in the founda-

tional literacies that play an integral part of gaining the literacy necessary to play the *Nadesico* videogame. However, this is not the only linear model available; scaffolding can be created with the different media in any order, working toward a broader literacy that contains its own ideologies and signs that are recursive throughout the narrative. Nevertheless, it is worth noting that the videogame has never initiated a mega-literacy narrative. While the placement of the videogame within—and not at the start of—the mega-literacy is probably due to economic and marketing concerns, the incidental consequence is that the mega-literacy does create a scaffold for learning videogame literacy.

In addition to the linear/consecutive mega-literacy model of narrative storytelling, a new non-linear/concurrent mode of mega-literacy has entered popular media, and is currently best embodied in the narrative of *.hack//SIGN*. The basic premise of this narrative is to explore and question the philosophical and spiritual implications of a massively multiplayer online game (MOG)[11]. While the mega-literacy of Martian Successor Nadesico was constituted in part by the videogame, the mega-literacy of *.hack//SIGN* is completely situated around video and computer games. Therefore, where *Martian Successor Nadesico* developers needed to build a scaffold in order to train their audience in videogame literacy, *.hack//SIGN* assumes that the audience already has videogame literacy based on the fact that it simulates a MOG environment. Nevertheless, these mega-literacy narratives have to be entertaining enough to ensure that audiences will invest in the necessary materials to follow the narrative across media, whether previously interested in videogames or not.

There are three media-genres in the *.hack//SIGN* mega-literacy narrative: manga, anime, and videogame. All three components were released concurrently. Each component follows a different narrative, yet all three narratives cross and interact. Consequently, in order to understand each complete narrative, audiences must develop the needed literacies and participate in all three narratives at the same time. However, *.hack//SIGN* is unique in that it requires additional literacy to completely access the storyline: MOG literacy. The types of literacy required for MOGs are similar to the types required for RPG videogames, except that MOG literacy requires the player to interact in social situation with other *real* people. As a result of the human variable, the system rules are not as predictable as they are in closed system RPGs.

The additional variable of real people in the MOG environment makes learning the literacy of MOG gaming more complicated because the direct social practices of the literacy are dynamic. In fact, Gee argues that the relationship between social practices and literacy is inseparable: "Literacy in any domain is actually not worth much if one knows nothing about the social practices of which that literacy is but a part. And, of course, these social practices involve much more than just an engagement with print" (15). The *.hack//SIGN* narrative must weave together manga, videogame, and anime literacy while at the same time educating

and training the audience in the social practices of the MOG literacy that forms the narrative foundation. While the audience of *.hack//SIGN* does not have to enter an MOG environment, the MOG player must either be familiar with or learn the social practices of MOG literacy in order to understand the narrative. *.hack//SIGN* attempts to educate the audience in MOG social practices through character dialogue as characters disclose MOG social rules and taboos to one another.

.hack//SIGN does not merely play a unique role in the mega-literacy narrative—they are the narrative. Both enjoy a privileged status in this narrative arc. Even if the audience of *.hack//SIGN* chooses to ignore the videogame component of the mega-literacy, they still are still learning a simulacra-type of videogame literacy through the anime and manga. In *Simulacra and Simulation*, Baudrillard analyzes the culture industry's systematic erasure of the real through simulations: "It is the generation by models of a real without origin or reality: a hyperreal" (1). Applied to *.hack//SIGN*, the anime, videogame, and manga are all simulacra of a MOG that has never existed—a static presentation of a dynamic environment. Thus, because no reference to a real MOG exists, the simulated MOG of *.hack//SIGN* defines the audience's perception of all MOGs. As a result of the simulacra, the MOG is also constructing the required literacy skills by simulating the text upon which those skills are practiced. Thus, the practice of a mega-literacy becomes more complicated—knowledge based on simulacra is, in turn, simulated knowledge, for the required literacies are applied to both the texts that the audience have in hand as well as simulations of real texts[12].

.hack//SIGN places some interesting demands on the audience. First off, *.hack//SIGN* requires the audience to participate in four different literacies simultaneously. There is no systematic building or reinforcing of the semiotic domains in a sequential order. This leads to a very disorderly presentation of the ideologies and icons present in this semiotic domain, putting more stress and responsibility on the audience. Additionally, the audience must not only negotiate the audience/decoder role, but also participate as a player/decoder/pseudo-encoder of the videogame, which, as discussed earlier, changes the role and type of interactions that the audience has with the text. Finally, the concurrent narrative storytelling in this mega-literacy places a high demand on the audience's memory and ability to create meaningful intertextual ties between the different texts of the mega-literacy. While the concurrent narrative structure of *.hack//SIGN* places high demands on the audience, the demands themselves are not without their benefits. The audience not only learns—or at least practices—uncommon literacies, but the audience is also trained in how to effectively make intertextual ties between different media-genres while dealing with complex ideas and stories.

Indeed, the implications of *Martian Successor Nadesico*'s consecutive narrative and *.hack//SIGN*'s concurrent narrative are both positive in the effects of their practice with unfortunate problemat-

ical undertones. For example, practicing a mega-literacy requires the audience to continually develop more complex maps of meaning that account for the different formations of signs and ideologies within various multimodal media formats. This practice also develops the ability to intertextually relate complex relationships among different ideas appearing in different media formats. The ability to create these intertextual ties lays the foundation for critical thinking—arguably, one of the most important skills that a person can learn.

However, while the ability for critical thinking exists, Benjamin notes in his article "The Work of Art in the Age of Mechanical Reproduction" that the danger lies with the unconscious masses that practice critical thinking in distraction. While Benjamin bases his discussion on film and the ways in which masses are becoming more critical because of the death of the aura that film enables, his assessment is fully applicable to videogames and other components of a multi-genre narrative. Therefore, while the ability to make intertextual ties creates a more critical audience, there is no guarantee that the audience will engage in a critical practice. Mega-literacy texts are additionally problematical in the ways that they perpetuate systems of consumerism, since a multi-media narrative requires the audience to invest in all of its parts. This is related to Benjamin's concept of the masses practicing in a state of distraction—if the masses are not consciously critical, then they will not realize that they are being trained as consumers. While these issues certainly problematize mega-literacy, they do not negate the tangible benefits of learning mega-literacy—the ability to read multimodal texts across different media, thereby creating intertextual ties that lead to greater critical skills. Furthermore, this discussion becomes more complex when considering the unique role that videogames occupy in a mega-literacy text, as discussed in the following section.

Problematizing the Videogame

.hack//SIGN's narrative mega-literacy indicates a privileging of the ubiquitous yet largely ignored (within the academy) videogame medium. Whereas *Martian Successor Nadesico* builds toward including the videogame in the mega-literacy text, *.hack//SIGN* privileges videogame literacy in every media format. The placement of the videogame in a multi-genre narrative is fairly new, and the full implications of including the videogame as an artifact on which the audience must practice mega-literacy skills have not been, I think, fully explored. This section, then, raises some major questions and important considerations concerning videogames' unique role in meaning-making within U.S. popular culture; these questions all center on the economics of the culture industry. Consider, for example, *Martian Successor Nadesico*: It is true that the order in which the media components are presented in the narrative builds a scaffold that simplifies an audience's ability to acquire videogame literacy; however, it is doubtful that this was the

reason that the videogame appears at the end of the narrative arc. Rather, it is highly probable that the placement of the videogame at the end of the mega-literacy had to do with the production costs.

The costs of videogame production are extensive; videogames take an average of two years to create, quite an investment and a risky one if the audience is not guaranteed. The producers attempt to ensure that consumers will buy the title through the deliberate order in which they present the media components of the mega-literacy's narrative. For example, following the end of the novels, the producers of *Martian Successor Nadesico* chose to have a full-length animated feature, which appeals to a broad audience that receives more media and commercial exposure. The audience base expands with the release of the full-length animated feature, so that when the narrative switches to the videogame format, more people are exposed and interested in the conclusion of the narrative. This tactic also entices people who do not play videogames to join the gamer community if they want to follow the narrative to its conclusion. Furthermore, audience members who had not previously played videogames must also buy a gaming platform for approximately $150 or rent a gaming platform—an expense that can cost as much as $10 per day. Thus, economic access to the mega-literacy becomes a pressing concern. Those who cannot afford the platform and game (*Martian Successor Nadesico* markets for 6,800 yen or $68) are denied access to the narrative.

In addition to economic access, availability is also an issue. All of the components of *.hack//SIGN* are available in both the U.S. and Japan, yet the same cannot be said about *Martian Successor Nadesico*. The U.S. has imported the manga, the twenty-six episode anime series, and the movie. However, neither the novels nor the videogame are available in the U.S. at this time. This means that there are large gaps in the narrative structure, which affects how the mega-literacy is learned and practiced. The odds of either the novels or the videogame actually coming to North America are relatively low. There are two reasons that the novels probably will not be imported: (1) cost of translation, which for agency translators averages $15-$50 per page and for freelance translators averages $50-$100 per page (Jackson) and (2) no precedent. American companies have not, as of September 2004, published any manga/anime-based novels from Japan, so the market is not tested for this costly venture.

The low probability of the videogame being imported into America is also closely associated with the fundamental problem of the videogame's role within a mega-literacy: a mega-literacy is dependent on the accessibility of all media-genre components, but videogames are not. Novels, manga/comics, anime, and movies are parts of static mediums. When a book is printed, it stays in print and can be bought at any time. The same can be said about television, which is generally slow to evolve. Considering that VHS defeated both Betamax and laser disk technologies, maintaining its dominant position as the technological medium for decades, it becomes apparent that the home entertainment technologies tend

to be fairly resistant to change. Although the DVD is replacing the video, VHS is still common. Because of the relatively static forms of these media-genres, the mega-literacy component that is written in that medium remains accessible. The same cannot be said of videogames.

Videogames are dependent on rapidly evolving technology. Indeed, the marketing of videogames is largely based on technological advances such as new graphics, better interface design, higher memory capabilities for more complex story lines, and so on. In order to support these technological advances, new gaming platforms must be developed and marketed. Old gaming platforms become obsolete and are discarded because they no longer play the newly produced games. Without access to the gaming platforms for which the original game was designed, there is no way to actually play the game[13]. Furthermore, the advances in technology create a more discerning audience that has higher expectations of game design.

The Martian Successor Nadesico narrative is affected by the rapid advances within game technology. The videogame element was designed for Sega Saturn and the Sega Dreamcast, which are both already outdated. Furthermore, the next generation of gaming platforms is about to be released, making all previous games even more obsolete. In addition, the graphics have become dated on the original *Nadesico* game. *Nadesico*'s Sega Dreamcast game is still highly pixilated, with few graphic scenes and an antiquated interface design. Compared to newer games with game engines that enable film-like computer graphics and sophisticated gameplay, it comes as little surprise that the final chapter of the *Nadesico* narrative will probably not be translated into English. This event leaves the mega-literacy incomplete, which in turn leads to semiotic misunderstanding of the *Nadesico* narrative. Access to the narrative as a whole is denied, and as a result, access to the knowledge contained within that component is also denied.

New Beginnings, New Literacies

Videogame literacy is important to acquire because it further expands a definition of literacy that is multimodal, incorporating and combining visual and textual literacies with gameplay and interface literacies. It also resituates how game scholars understand the role of the player-decoder. Videogames require players to interpret semiotic codes and act—both inside and outside the game environment—based on those codes. As a result, decoders become encoders of sorts when they act upon a situation. Lastly, videogame literacy requires a sophisticated sense of the ideologies in which the game functions, for the player must, in most cases, act quickly on a situation without thinking. This ability to effectively act requires the player to have an intuitive and naturalized sense of how icons and ideologies are working within a videogame situation.

The literacies required to read both videogames and multi-genre narratives share similarities. Both require traditionally different lit-

eracies to work in a singular multimodal literacy while negotiating intertextual connections among the media-genres employed. Text-based literacy of a novel is different from the text-based literacy needed for manga/comics or videogames. The same can be said about visual-based literacies in anime, movies, videogames, or manga/comics. This does not include the literacies of music, pacing, or cross-referencing other types of popular media trends, all of which affect the mega-literacy. A mega-literacy not only challenges how we conceive of literacy, but also forces us to reevaluate the types of literacy that we privilege.

This reevaluation must begin with a critical look at the literacies privileged by the academy, which are often limited to the print-based tradition. While this may be cost-effective, and politically careful in the short-run, reading and writing may no longer be the most important components of literacy in industrialized societies. Additionally, the advent of a mega-literacy complicates the definition of literacy even more. In a mega-literacy, literacy is not limited to one type of media such as print-based text or cinematic literacy; it is more than the sum of its parts. Rather, literacy defined through a mega-literacy is (1) learning the individual media literacies necessary to follow the narrative, (2) reading and decoding the complex signs and ideologies that recursively occur throughout the narrative, and (3) participating in these recursive processes by recoding the complex signs and ideologies with which the audience interacts.

Because the mega-literacy cannot be separated into its parts, one type of media literacy cannot be valued over another type of media literacy. Thus, within the mega-literacy, videogames are as valued as novels, which are as valued as anime. Visual literacy, videogame literacy, and the many other types of literacies needed to complete a story arc are now equally as important as text-based book literacy. It is a type of *Gesamthunstwerk*—a fusion of all the literacy arts in one work. And in this equal grouping, the videogame finds a place. The videogame is a double *Gesamthunstwerk*, requiring the audience to employ this emerging mega-literacy skill. Videogames fuse multiple media—video, print text, visual, gameplay, and so on—into one artifact that the audience must be mega-literate in order to read. An even greater level of mega-literacy is required of the audience to read videogames and the other components of a multi-media narrative such as the ones discussed in this paper. This unique ability to be both a fusion of all other media/texts in one as well as being a single component in the larger fusion of media/texts ensures the videogame's special place within this emerging mega-literacy.

Notes

[1]Kia Asamiya sold his idea to an anime company, which started producing a narrative using his characters and world; however, Asamiya didn't publish his first comic book version of *Martian*

Successor Nadesico until 1997. Furthermore, Asamiya's comic book and the anime were separate, exploring different and unrelated storylines within the same world.

[2]Pronounced "dot-hack-sign."

[3]This can be seen in such publications as *Newsweek*'s 1975 article "Why Johnny Can't Write" and other forms of popular media that echo the same sentiment. Furthermore, this popular view of literacy fuels political campaigns such as "Back to the Basics" and "No Child Left Behind."

[4]Stuart Hall attacks this process of naturalization, arguing that the rigorous examination of semiotics allows for potential subversion and rewriting of the naturalized codes within societies. Such tension is necessary to ensure that harmful/negative ideologies such as racism, sexism, classicism, and so on are challenged and rewritten within the hegemonies and ideologies of society. Nevertheless, these maps of meaning are useful in the creation of a shared language, so long as its users do not become complacent within the dominant maps of meaning and fail to challenge the negative ideologies/hegemonies.

[5]These cultural umbrellas still apply to imported medias and mega-literacies. For example, Japanese media such as anime and manga have become very popular in the US; however, Japanese media is created using different cultural ideologies and hegemonies. This, of course, presents interesting challenges to U.S. audiences, who were not the original intended audience. Nevertheless, the components of the mega-literacy should still work to create and reinforce the semiotic codes that the narrative will use in its meaning making in such a way that U.S. audiences, while not sensitive to all of the cultural ideologies being referenced, can still develop competency within that literacy. This is, of course, a topic that requires further research.

[6]It is this very idea of "action" that separates videogame literacy from similar forms of multi-modal literacies. For example, subtitled movies require the audience to read both visual and textual literacy, yet they require a more passive form of interaction with the text. Videogames, however, require that same consumption of a text, but they require the audience to act upon the text based on what is shown or written.

[7]This paper is making a distinction between computer games and videogames based on the interface: Computer games require a computer console and are often played on computer screens, while videogames use gaming consoles (such as PS2 and X-Box) that interface with television screens.

[8]Fan fiction is simply original stories created by the fans of a particular narrative. These stories use the same characters that appear in the original stories though they are mostly unsanctioned by the original creators. The best collection of manga and anime fan fiction (in English) can be found on Anime Turnpike (www.anipike.com).

[9]The most striking example of successful manga artists is Rumiko Takahashi. Her estimated income for 2001 is 616 million yen, and

450 million yen for 2003. With an estimated 100 yen to 1 dollar ratio, the conversion to US dollars is about $6.16 million in 2001 and 4.5 million in 2003.

[10]While the series actually begins with the publication of the four-part manga series, the manga itself does not start the single narrative story line. Rather, the manga can be treated as a separate entity that shares characters and signs with the rest of the *Nadesico* mega-literacy. If the audience began with the manga series, then the manga also helped to create a scaffold for the videogame finale by combining text with visual representations in much the same way that RPG videogames do. Part of manga/comic literacy is learning how to "read" the frames that include both art and words with the understanding that the art and words will carry different yet equally important semiotic information.

[11]MOGs allow players to log-on to the Internet and create characters that are then able to interact in real-time play with other people and their characters. There is no set narration that limits what your character can do. Rather, MOGs are similar to role-playing games such as D&D and GURPS—the difference being that MOGs are played on-line with people that the players who rarely ever meet. The most successful example of a MOG is *EverQuest*.

[12]I recognize that the simulated texts complicate how mega-literacy is defined and practiced; however, a full examination of these complications lay outside of the scope of this paper.

[13]Games created for consoles such as PS2 and Xbox develop more slowly because the hardware configuration is static. As a result, the platform cannot support all new innovations in game design. In contrast, PC consoles are more dynamic because the hardware is created to be flexible and reconfigurable, allowing game designers to be equally flexible in their work. Once console development marks a game as obsolete, there is little chance that the game will be resurrected in a new system. With the exception of popular games that have franchised into other media (Marketing of *Mortal Kombat* and *Streetfighter* have continued in the form of cartoons, movies, comic books, and so on), few games will ever warrant the expense of the conversion or "porting" process.

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