Remediating the Stars: Rob Wright’s ‘Watch the World(s)’ Machinima.

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In 2007, British writer Rob Wright created *Watch the World(s)*, a short machinima depicting his recreation of Vincent Van Gogh's painting *The Starry Night* in three dimensions, within the multiuser virtual world *Second Life*. Wright (whose *Second Life* avatar name is Robbie Dingo) released the clip on YouTube and it was quickly disseminated among the *Second Life* user community, particularly after being featured on the popular *New World Notes* weblog. Wright also posted the film to his own weblog, *My Digital Double*, where it remains available for viewing as of this writing.

Viewer response to the four-minute film, expressed in comments on both weblogs, has been couched in emotionally expressive language normally reserved for Hollywood blockbusters. Words like goosebumps, shivers, and blown away appear frequently, as do exclamations of amazement ("Wow!") and statements that the film made the viewer cry or shed tears. The film gives viewers an immediate, visceral, emotional response; for them it is both poignant and transcendent.

A roughly equal number of comments praise the technical aspects of the three-dimensional construction project that is shown in the film. They congratulate Wright on his technical skill, and admiringly point out specific techniques used to create the virtual *Starry Night*. To some extent, this is to be expected. Those who comment on the two weblogs are likely to be *Second Life* aficionados with an appreciation for its technical aspects.

Strikingly, however, both the emotional and the technical are often described within the same comment, suggesting that the emotional impact of the production is not diminished by an awareness of its constructedness, but actually enhances the experience for most respondents.

Why should this be so? Famous paintings have been recreated in other media before--perhaps most elaborately in the Stephen Sondheim musical *Sunday in the Park with George*, which recreates an iconic neo-Impressionist painting by Georges Seurat on the theatrical stage. However, this kind of adaptation or homage is less common than, for
example, film adaptations of novels, and has thus received little if any attention from scholars.

Furthermore, multi-user virtual environments (MUVEs) like Second Life, and similar environments found in computer games and in browser plugins like ExitReality (which renders any web page in three dimensions), are a rapidly emerging medium with potential affordances for and impacts on education, human interaction, and artistic creation. They are poised to become significant sites for the negotiation and reinscription of culture, including the ways we view the real, because of their ability to immerse the user in a visually convincing three-dimensional world.

But is their impact significantly different from, say, the way photographs tend to be seen as "windows to reality," or the apocryphal tale of audiences fleeing in terror from early films of locomotives? Or are these new media simply incremental advances in our communications media? What causes the powerful emotional response in viewers who are well aware of the medium's technical characteristics?

In this paper I argue that the concept of remediation, as characterized by Jay David Bolter and Richard Grusin in 2000, provides a way of understanding how Watch the World(s) operates on its viewers to generate both technical praise and powerful emotional reactions because it illuminates the way the film offers an empathic "direct access" to the bittersweet emotions evoked by painting and pop song, even while viewers are directly engaged with the technology of virtual worlds construction. The concept of remediation also helps us understand just exactly what it is that generates goosebumps.

I begin by describing Van Gogh's The Starry Night, Don MacLean's Vincent, and the Watch the World(s) machinima. I then explicate Bolter & Grusin's notions of immediacy, hypermedia, and remediation, followed by an application of these to the three connected works. I conclude with a discussion of the implications for emerging MUVEs as they become more and more "lifelike" and immersive.

The Starry Night(s)
Van Gogh's famous painting (see figure 1) depicts a village under a starry sky, with mountains visible on the horizon and a large cypress tree prominent in the left foreground.

Although the overall proportions of objects is realistic, the glowing rings of color around the moon and stars and the comet-like swirls in the sky lend a kind of dreamlike feel, and the broad *impasto* brushstrokes, which almost look like fingerpainting, give the painting a nearly childlike innocence.

Almost a hundred years after the painting was produced, folk-rock artist Don MacLean, perhaps more famous for his #1 hit "American Pie," created a paean to Van Gogh in the song *Vincent,* which is also known by its opening line, "Starry Starry Night." The song is contemplative and quiet, with only MacLean's voice and an acoustic guitar,
and is structured in a pattern common to much rock music: verse, chorus, verse, chorus, bridge, then a final verse, chorus.

Wright's 2007 machinima runs just over four minutes, a length determined by MacLean's song, which serves as its soundtrack (the following description--itself a kind of re-mediation of the film--can be greatly enhanced by viewing the film, which is likely to be available on the archived web for some time to come). After a simple opening title in black text over a white background, the music begins while the view shows a geometric grid that is the underlying structure of Second Life. The point of view is in constant motion, zooming, panning, and flying over the scene, which rapidly evolves from a wireframe of crosshatched lines to a bare landscape of ground under a harsh virtual sun. The ground is in motion, too, folding upwards into hills in a way suggestive of the geologic processes that form mountains. After a few seconds the figure of a man appears. Although at first he might appear to be an observer, watching the landscape change, it becomes clear that he is the one who is changing the landscape--though this godlike characterization is tempered by his casual, modern dress, including eyeglasses.

The figure then flies across the landscape, which we see is a kind of disembodied square of land floating in a void, and upon reaching one corner starts to construct vertical walls that eventually surround three sides of the square "island." The wall-building segment begins with the appearance of a square that is repeatedly copied and pasted, tile-like, until the whole backdrop of "sky" is complete on one side of the island. The wall is then cloned and its copy dragged across to the other side of the square, and then a third wall created in similar fashion perpendicular to the first two. Gridlines and colored arrows appear and disappear quickly (the video's timeframe is foreshortened), suggesting an underlying technical and almost mathematical skill at work in the creation of this virtual box with its top and front side left open. This is the landscape, the stage, upon which Van Gogh's painting will be replicated, and the creation of this stage takes up at least the first quarter of the video.
Next we see the same view in black and white, rendered as if it were an animated pencil sketch. A number of three-dimensional solids (cubes, cones, spheres, pyramids) appear and, like the wall, are similarly operated upon to the accompaniment of gridlines and colored arrows (the latter are the "handles" used to manipulate objects in *Second Life*). It becomes apparent that these are building blocks for houses and other structures, including the church steeple so prominent in Van Gogh's painting. The second quarter of the film is taken up with the construction of these buildings, including roofs, windows, and other details, and the rendering becomes more colorful and less sketchlike again during this process. The segment ends with a series of panoramic rotations in which no building is taking place, suggesting that the builder is inspecting or even admiring his work so far.

As the song breaks into the bridge ("For they could not love you. . . ."), building recommences on clusters of green, egg-shaped solids that are arranged into abstract hedgerow patterns. The pace quickens as a fence is added, and then we see the unmistakable swirling blue of Van Gogh's sky being tiled onto the walls that were constructed earlier, in a cascading effect that is almost like a pixelated version of paint being poured into a container--or spread upon a canvas.

As the third and final verse of the song commences, the scene shifts into a slow rotational pan around one building with a warm yellow glowing square that represents a window lit from within by night. Similar windows are then constructed for all the structures, and after the view zooms out to embrace the wider scene, the process is repeated to create glowing yellow spheres overhead--the stars of the starry night. These are placed in the sky with the assistance, once again, of geometric grids (rather than, say, Greek gods).

The completed scene only appears in the last 45 seconds of the film, during the final chorus of the song. Notably, in the third iteration of the chorus, there is a change of phrasing ("now I understand" becomes "now I think I know") and a slight inflection of
melody that shifts the tone of the song and resonates with this final unveiling. The camera takes us on a slow tour of the completed "painting." One shot even depicts the scene as if by day, with an orange sky and a burning yellow sun, though the buildings remain windowlit. It's clear that Van Gogh's eternal nighttime village can now exist in a complete diurnal cycle.

As the song's last few lines are sung, the scene changes and we appear to be at a great distance from the construction, though close inspection reveals it to be a rather crude sketch that simply represents a kind of snapshot. The avatar reappears and very rapidly constructs the foreground cypress tree from the original painting, then surrounds the entire view with a picture frame. We thus see Van Gogh's original painting approximated, though somewhat crudely; the avatar then turns and flies into the painting and disappears--and as he does so, the crude reproduction subtly dissolves into the Van Gogh original itself, and brief credits appear below the frame, just before the film fades to black and ends.

**Remediation in New Media**

Bolter & Grusin's *Remediation: Understanding New Media* explicates the way that an increasingly mediated experience of reality can be interpreted by audiences to satisfy a need for direct experience, and at the same time naturalize the layers of mediation that have become almost inescapable in the present day.

The authors describe two conflicting human desires, existing in dynamic tension. The first is a desire for direct connection, for a lack of intermediaries; what the authors call the "transparent presentation of the real." At the same time, they argue, we have developed a capacity for "enjoyment of the opacity of media themselves" whereby we not only recognize the layers of mediation but, ironically, celebrate their ability to produce a kind of immersive, second-order immediacy (19).

*Immediacy*
The first drive Bolter & Grusin describe as "the logic of transparent immediacy" and they cite examples, such as virtual reality and 3-D computer desktop software, as evidence of our desire to create a naturalistic experience in which the medium disappears (22). This is not unlike Benjamin's characterization of the way the technical complexity of filmmaking was employed to make itself disappear into the background, thus presenting the film itself as a kind of unmediated window into reality (Benjamin, 233).

The logic of immediacy is nothing new, the authors assert, and virtual reality is simply the latest manifestation of the desire to gain direct access to experience. One might even relate this urge for immediacy to the 19th Century Romantic concept of the sublime, which painters and poets sought to invoke in their works: that "beautiful and terrible" sense of the natural world that represented something powerful, necessary, and beyond the control of Man. However, it's also clear that realistic photography--another 19th Century development--also fetishizes the (experience of the) Real in its effort to remove the mediation of the artist and give direct access to (only the visual, perspectival components of) reality. Thus all technologies are in part valued for their ability to "disappear."

Bolter & Grusin trace the desire for immediacy even further back, to the techniques of linear perspective, which were seen as giving access to the "true world." However, because such work tended to foreground the artistic skill required to render such views, and thereby made the artist's mediation more visible, there arose a parallel need to attend to the mediation and efface it--for example, by making brush strokes less obvious or by softening lines of perspective (24).

The advent of cameras and, later, film and computer graphics technologies, have provided new ways to efface mediation through automaticity (25), which reduces the perceived level of human intervention and thus mediation. We believe that the camera and the computer cannot lie, cannot be fooled, cannot bring their own agendas and
perceptions into the relationship between ourselves and the Real, because their operation is segregated from the hand, unlike painting or drawing.

Yet this very effacement runs the risk of being too perfect, in the case of computer-generated graphics. Graphics created for movies or computer games replicate Cartesian perspectivalism with absolute accuracy (vividly apparent in the wireframe view that underlies most graphics programs), but we feel compelled to efface this perfection by introducing randomness and disorder, lest the lines be too perfect, or the streets be uncannily clean (26).

Martin Jay's (1988) typology of scopic regimes might place this as an example of Baconian empiricism resisting Cartesian perspectivalism: the perceived, empirically observed nature of the "messy" world trumping a belief in the pure truth of underlying forms. A powerful example of this need to efface is seen in efforts to create convincing computer-generated human faces and humanoid robots. Our skill in creating these is approaching Cartesian perfection, yet as theorized by a Japanese roboticist almost forty years ago, there comes a point at which we are actually repulsed by these creations because they are "too real" yet not real enough to suspend disbelief (Mori, 1970). Mori called this point the "uncanny valley." I suggest that this repulsion arises on several grounds: first, that these creations display the limits of the Cartesian paradigm that we frequently tend to take as the underlying, unmediated truth about reality, and second, because they raise questions about our assumptions about the ontological reality of the supposedly real human beings with whom we interact on a daily basis.

Bolter & Grusin assert that the desire for immediacy is not an intentional forgetting about the fact of mediation, or a naive wish to be fooled completely. Rather, we simply seek a point of contact, somewhere in the mediated object, that we can believe directly connects with what it purports to represent. That point of contact might be a certain color or quality of light, or a feeling that the underlying mathematics of perspective are correct, or that the robot has an internal subjectivity like our own (30).
The roots of this longstanding historical desire for immediacy are beyond the scope of the present inquiry, but could arise from a feeling of dislocation from nature brought on first by agrarian and then by industrial practices, or a feeling that our rational consciousness and use of symbols has disconnected us from the real, or even from what Kenneth Burke has described as the innate drive towards consubstantiality.

**Hypermediacy**

Bolter & Grusin argue that standing alongside and in tension with the drive for immediacy is a parallel "logic of hypermediacy" that addresses and even celebrates the inevitability of mediation. Hypermediacy "renders the media visible and multiple" (33). Hypermediacy sees and admires the frame for its contribution to the experience.

Again returning to computer technologies, they describe the proliferation of so-called "intuitive" interfaces that are claimed to naturalize and immediatize the experience of technology, such as metaphors of the page, desktop, palette, etc. Echoing McLuhan, however, they argue that there is nothing new under the sun; that these supposedly intuitive and naturalistic creations merely represent older and more familiar forms of mediation. We simply don't see the earlier forms as mediations (Bolter & Grusin, 32), a forgetfulness reminiscent of the often-quoted line from Alan Kay (credited with inventing the idea of the computer mouse): "Technology is the stuff invented since you were born" (McFarlane, 118).

Ironically, hypermediacy is valued in part because the various media can recreate the rich and varied experience of the human senses (Bolter & Grusin, 34), and advances in media technology generally broaden and deepen the sensory experience. That is, technologies such as virtual reality are celebrated for their very ability to make experiences (such as visiting a virtual forest) feel more sensually real. In fact, while we often think of the word "virtual" as implying a lack of reality, a not-quite-realness, it is
actually a reference to that point of contact that connotes immediacy: virtual reality contains the virtues, the essence, of reality—or so we believe.

The appeal of hypermediation, then, is an ironic one, because it "reminds us of our desire for immediacy" (34). Yet while Bolter & Grusin argue that a desire for immediacy has a long history, hypermediation has only recently become equally prominent. In the past, awareness of media was a secondary and often playful presence, but with the rise of modernism (and its corresponding fetishization of technology), hypermedia consciousness arises (38). The fact of mediation becomes a component of ontological reality, just as much as that which is mediated, as technology is naturalized and therefore becomes an integral part of our experience (42).

*Remediation*

Today, Bolter & Grusin assert that immediacy and hypermediacy coexist in an oscillation or tension between a "looking at" and a "looking through" (41). But since "looking at" is more desire than actuality in a highly mediated culture, what results is more often a continual process of re-mediation, "in which one medium is itself incorporated or represented in another medium" (45). Remediation acknowledges McLuhan's assertion that all media simply contain other media, as a filmed version of a *Harry Potter* story contains the book it is based on. Remediation is also an old process, exemplified by everything from *ekphrasis* (textual description or captioning of images) to paintings of biblical stories. The borrowings take place in a number of forms. While the mediation may be equally distributed across a number of media for any given experience, more often one is privileged or foregrounded over the other.

Remediation can take a number of forms. One example is the CD-ROM-based photo gallery, in which the tool is made as transparent as possible in order to allow more direct access to the older media (the photos or paintings) by eventually displaying them full-screen on the monitor. In other cases, such as the online encyclopedia *Encarta* or medieval curio cabinets, the new medium is "translucent" in that it never quite vanishes
from perception, even though its purpose is to display other mediated forms (Bolter & Grusin, 46).

Bolter & Grusin also describe more "aggressive" forms of remediation in which "the work becomes a mosaic in which we are simultaneously aware of the individual pieces and their new, inappropriate setting" (47). Such remediation makes us simultaneously aware of mediation at several levels by problematizing the media from "before we were born" while keeping the remediation in plain view as well. They suggest that windowed computer desktops operate in this aggressively mediated way, as do more conscious acts of remediation found in certain art and music CDs (Matt Frewer's 1980s Max Headroom character is also a perfect example of aggressive remediation).

A fourth kind of remediation seeks to erase the original medium altogether, though it can never do so completely because, for example, an "interactive film" event such as Myst or Doom reminds us of the medium of film, even as it seeks to transcend it. And the older medium may resist erasure if there is a political-economic force at stake, as is seen with the competition between the Web and television to remediate each other, with webcams online and computer displays on the evening news (Bolter & Grusin, 48). When traditional news outlets disparage "the blogosphere" or web sources like Wikipedia, a battle for remediation is underway.

The fourth and least contentious form of remediation is exemplified by the play within a play, or the homage to an earlier film that recreates (or even parodies) a famous chase scene. Each remediates without challenging or commenting on the validity of the now-remediated form itself. Yet Bolter & Grusin argue that even in this "special case of remediation" there is still a mixture of homage and rivalry between the remediation and that which is remediated; they adopt Harold Bloom's characterization of this relationship as "the anxiety of influence" (49).

Whether the tactic of remediation is transparent, translucent, aggressive, or homage, remediation itself is a fact of existence, not a temporary phase. New-media
evangelists may assert that early films were more obviously derivative of stage plays but eventually developed a vernacular of their own, but Butler & Grusin argue that this is merely a new strategy for remediation (50), not a new and independent medium, and the same is true of things like virtual reality:

What is new about digital media lies in their particular strategies for remediating television, film, photography, and painting. Repurposing as remediation is both what is 'unique to digital worlds' and what denies the possibility of that uniqueness (50).

Application and Analysis

Remediation is not hard to observe in the example of Rob Wright's machinima. The "original medium" (so to speak) is *The Starry Night*, which was executed in the late 19th Century while Van Gogh was recuperating from a serious episode of mental illness ("The Starry Night"). In fact, the painting itself is a hypermedium in three ways. First, the scene depicted is not a single landscape that existed prior to the painting, but a pastiche of images from the south of France that Van Gogh combined into a single fictitious landscape. Second, the painting's post-impressionist style clearly calls its mediation to the viewer's attention because of the way it differs from direct ocular experience; its intent is to use the visual depiction as a medium for giving the viewer a sense of immediate access to the artist's feelings and state of mind. Third, the painting calls attention to the medium of painting through its use of *impasto*, thick layers of paint that make the artist's brush strokes clearly visible (though this is less obvious in two dimensional reproductions). The use of *impasto* is quite the opposite of the technique of effacement that Bolter & Grusin describe in other paintings; we are clearly not expected to see this as a literal window; the artist's participation in the image's construction is inescapable, as is the materiality of the image itself.

Clearly, then, the original is already an explicit mediation--almost a Baudrillardian simulacrum, since there is no "original" to be represented. It nonetheless
attempts to create an immediate experience of Van Gogh's consciousness. This exemplifies the desire to achieve immediacy through hypermediation; a more photorealistic, effaced presentation would not have been satisfactory to Van Gogh, and in fact this rejection of effacement is one of the main things that Impressionism and post-Impressionism were addressing.

When Don MacLean published his ode to Van Gogh in 1971 ("American Pie"), he similarly made the medium of painting explicit, in what Bolter & Grusin might consider a relatively transparent remediation. His lyrics foregrounded not simply the artist and his subjects but the act of painting itself, with words like paint, sketch, and palette, as well as references to "the artist's loving hand" and "portraits hung in empty halls." Though the song celebrates the way Van Gogh spoke to MacLean's spirit, and poetically describes the trees, flowers, and clouds that were prominent in Van Gogh's art, it explicitly references the mediating work of painting, suggesting that it is the medium itself—not Van Gogh--that brings Van Gogh's "beautiful" ideas to life, and thus celebrates the paintings as much as the artist. One imagines that, had Van Gogh been a photographer or a realist painter, it is less likely that an ode like Vincent would have highlighted the work of production. While the song itself is rendered transparently, it echoes and celebrates the original act of mediation in the painting.

As described earlier, Wright's machinima spends a great deal of time on the construction process itself; in fact, the film is "about" the construction of a virtual three-dimensional replica of the painting, not about the actual replica (which Wright states was only made as a temporary set for the film) Bolter & Grusin help us understand what this accomplishes for both Wright and his audience. By focusing on the construction process, Wright also de-constructs and de-effaces the technique in the original, and thereby remediates--in a relatively aggressive way--by showing how virtual reality can do it better. A focus on construction reveals the mediated nature of the original painting, and (less explicitly and perhaps unconsciously) the parsing of the film's structure along the
lines of MacLean's verses also signifies the constructedness and mediation shared by song and film. Wright's film aggressively remediates both painting and song, suggesting that the new medium can contain at least the former (and do everything it could do; Second Life users are also well aware that this medium can also include audio recordings). The film also aggressively remediates the original by changing the lighting conditions (to "Sunny, Sunny Day"?), something impossible in a painting.

Audiences react strongly to the film not simply because they appreciate skilled set construction or feel moved by the evocation of the tortured artist that perhaps resonates with many of us. The film is powerful because it validates audiences' affiliation--and in many cases, their professional employment--with the new medium of virtual reality; it celebrates mediation, and as Bolter & Grusin assert, this is perceived as beneficial. It naturalizes it and demonstrates its im-mediacy in the very act of remediating the earlier forms, because the new version is even more capable of recreating the human sensorium; the complex stacks of mediation that result in a three-dimensional virtual French countryside are seen to take us closer to an immediate experience (one that, ironically, was never possible to begin with). This effect is most striking when the camera's rotation is making the three-dimensionality of the work clearly visible, and when the flyover corresponds with some of the emotional peaks in the song.

Importantly, then, audiences are moved not just by the emotions evoked in the painting and the song, but by their realization of the capabilities of the new medium in a kind of epiphanic moment. Its hypermediacy is its emotional power, though it is cloaked in the immediate language of emotional response to its content. At the same time, it is felt to convey something so real, so immediate, that viewers report disappointment that the "real experience" of the virtual set is impossible to obtain (because it was only constructed for the film and does not remain open for visitors). Something so powerful and engaging must have an ontological reality behind it. And yet there is none: not in Second Life, nor in real life.
The film's coda, the final few seconds in which the "frame" is constructed, briefly revalorizes the original medium in a more translucent remediation. But this, too, becomes a more aggressive co-optation as the builder's avatar (and, implicitly, we as viewers) flies into the "painting" that is symbolically destroyed--because we now know that a space exists where there was once only a plane. The transition of the crude drawing into the "original" painting reinforces the idea that the new creation is both an homage to the original and just as good, just as real and immediate--even more so, since it can contain the other, can paradoxically be more immediate.

(It's also possible that the coda is meant to take place outside the virtual construction and is a recapitulation of what happens in the film: taking crude shapes and turning them into an immediate, viscerally arresting experience of the painting.)

So what gives viewers goosebumps and moves them to tears is a kind of wonder at this demonstration of the emergence of an especially powerful hypermedium--and a confirmation that their advocacy is valid (one cannot underestimate the political value of this film for teachers trying to convince administrators to invest in virtual worlds instruction, for example). The point of contact is the freewheeling eye of the embodied viewer, taking in this medium from many vantage points, suggesting the immediate experience of walking around in the real world. The convergence of technical sophistication and immediate point of contact creates a powerful emotional jolt. It's not unlike the crying that takes place at ritual occasions like births, graduations, and weddings. These are tears of joy--and perhaps of simultaneous sadness, because of the past that is no longer with us, and is thus incapable of experiencing this new development.

If only Van Gogh had been in Second Life!

Conclusion

I do not mean to suggest that virtual reality is the end of media history, as many of its evangelists seem to imply, nor do I believe it to be an unalloyed good. It's clear that Second Life is, in many ways, simply a remediation of past forms, a hypermedium that
can contain video, still images, audio, and what appear to be three-dimensional objects. In that sense, there is nothing new here, as Bolter & Grusin and McLuhan would likely agree.

However, a number of developments are on the horizon that suggest that aggressive remediation via this newest of hypermedia will continue to expand. Technologies such as "augmented reality" and "mixed reality" blur the lines between virtual space and real space by projecting holograms into the real world, and our technologies for experiencing our virtual creations continue to evolve from cumbersome head-mounted displays to flat screens and beyond, with eyeglass-mounted displays already being marketed and direct neural stimulation being discussed as a serious technical possibility. The cartoonish graphics of early virtual worlds steadily creep towards photorealism, and text chat has been augmented with voice connections; telekinetic haptic technologies can already enable us to feel a handshake or an embrace over great distances.

As is seen in the example of the Starry Night machinima and its reception, Bolter & Grusin's work provides a useful lens through which to critically assess responses to new media without succumbing to dystopian pessimism or technophilic hyperbole; it reminds us that immediacy is more often a desire than an actual state of affairs, while permitting us our little celebrations as we find new ways to recreate and transmit experience in more phenomenologically real ways. More importantly, we have a vantage point from which to observe the cultural, political, and economic forces that negotiate remediation while neither demonizing or valorizing emerging forms of hypermediacy. This will become increasingly important as we discover ways to extend the bridge over the uncanny valley, lest we lose ourselves in the process.
Works Cited


