11. **Beyond Immersion**

Absorption, Saturation, and Overflow in the Building of Imaginary Worlds

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**Abstract**

While much has been written about “immersion”, it is only the first step in the experiencing of an imaginary world. This paper explores the experience by going further into the process, with the additional liquid metaphors of absorption, saturation, and overflow, and examines not only the effects that each of these processes or stages has on the world’s audience, but also how world makers actively use them to enhance the experience of a world, increasing the illusions of completeness and consistency, and cause audiences to keep returning to their worlds.

**Keywords:** Immersion; Absorption; Saturation; Overflow; Imaginary worlds; Transmedia; Reception; Audience experience

The Media Studies meaning of the word “immersion” is new enough that it does not even appear in the Second Edition of the *Oxford English Dictionary* that appeared in 1989, yet much has been written about immersion since then (for example, Ryan, 2001; Rose, 2012; and Arsenault, 2005, 50-52). Overall, there seem to be three types of immersion, which we could refer to as physical immersion (like a theme-park ride); perceptual immersion (like a movie); and conceptual immersion (like a novel). Imaginary worlds, which provide places for the audience to go vicariously, greatly aid the act of conceptual immersion and give us some of the best examples of immersion. Yet, when one considers the process of experiencing an imaginary world, as well as the process that goes into the building of one, what we call “immersion” is really only the first step in the experience. An audience may become immersed in an imaginary world, but, unless it is built with care,
they may have little desire to stay there, learn more about it, or return later. Builders of imaginary worlds, then, must consider what happens beyond immersion, and we can identify three more such stages in the audience's experience. In keeping with the water metaphor found in “immersion”, I will refer to these stages as “absorption”, “saturation”, and “overflow”, which I have already written about elsewhere (Wolf, 2012).

The term “absorption” has already been applied to audience experience; in *Narrative as Virtual Reality*, Marie-Laure Ryan divides “absorption in the act of reading” into four degrees: concentration, imaginative involvement, entrancement, and addiction (Ryan, 2001, 98-99). As I will use the term here, absorption is a two-way process, unlike immersion. In one sense, the user's attention and imagination is absorbed or “pulled into” the world; one willingly opens a book, watches a screen, interacts with a game world, and so forth; we find ourselves “entering” the imaginary world. At the same time, however, the audience also “absorbs” the imaginary world as well, bringing it into mind, learning or recalling its places, characters, events, and so on, constructing (or reconstructing) the world within their imagination the same way that that memory brings forth people, events, and objects when their names are mentioned. As we are absorbed into a world, we are able to mentally leave, or at least block out, our physical surroundings, to some degree, because details of the secondary world displace those of the Primary World while we are engaged with it. As psychologist Norman Holland describes it:

We humans have a finite amount of attention or “psychic energy.” Attention is a way of focusing that limited energy on what matters. If we concentrate on one thing, an important thing, we pay less attention to other things. Those other things become unconscious (or, more accurately, ‘preconscious’ in Freud's term). If we use more energy and excitation in one prefrontal function, following the play or story, we have less energy available for other prefrontal functions, like paying attention to our bodies or to the [Primary] world around that play or story (Holland 2009, 48).³

Thus, to ensure that absorption will follow immersion, world builders must introduce their worlds with the right balance of familiarity and strangeness, drawing audiences in with invention while not changing so many defaults that confusion or even alienation occurs. Glimpses of a world's infrastructures, though they may be tantalizing, must still present a coherent picture, and should also convey a sense of the world's underlying logic, so as to set up some framework into which the audience can mentally begin placing
world information as they learn it. A mental model of the world forms in their mind, as the world is absorbed by the audience.

The absorption process can continue in subsequent visits to a world, as new information is encountered and added to what the audience already knows. Unresolved narrative threads and incomplete infrastructures, together with the enigmas that arise in each, may entice the audience to return, and each return visit can result in a greater time, effort, and even financial investment in a world, giving further reasons for visits to continue. On each subsequent visit, the audience will have to call to mind world data that they have learned in order to pick up where they left off, similar to the way a computer program has to load before it can be run, allowing absorption to continue each time a visit is made.

For larger worlds with a greater number of world data, absorption can continue until there are so many world data that one’s mind struggles to contain them all, with new information threatening to crowd out older data. This state, of having taken in as much world data as one’s mind can hold, we might refer to as saturation. Saturation, then, is the pleasurable goal of conceptual immersion; the occupying of the audience’s full attention, concentration, and imagination, often with more detail, nuances, and subtleties than can be held in mind all at once. For example, the second edition of Tolkien’s posthumously-published book *The Silmarillion* (Tolkien 1977) includes an “Index of Names” listing 788 entries for all the characters, places, titles, and terms used in the book. To make matters even more difficult, certain characters have multiple names; Túrin, for example, is also known as Neithan, Gorthol, Agarwaen, Mormegil, Thurin, Wildman of the Woods, and Turambar, and several names are shared by more than one character, place, or thing; for example, Celeborn, Elemmirë, Gelmir, Gorgoroth, Lórien, Minas Tirith, Míriel, and Nimloth all refer to more than one person or place. And Tolkien’s names almost always carry meaning as well; after the “Index of Names” is an appendix entitled “Elements in Quenya and Sindarin Names” that lists 180 root words and their meanings, from which the majority of the 788 entries in the “Index of Names” are formed (thus, different names for the same character will have different meanings, which in turn reflect the person or people who gave the character a particular name). Many of the book’s characters are also related in elaborate family trees and these relationships often play an important role in the stories. For example, not only is Galadriel Elrond’s mother-in-law, and thus Arwen’s grandmother, but Arwen’s parents are actually first cousins thrice-removed. Even the names of the various groups of Elves indicate their history and relationship to other groups and their experiences as a people.
The events of *The Silmarillion* span several thousand years and various events are alluded to long after they have occurred or are foretold long before they occur, requiring the reader to remember a good deal in order to understand the events and the connections and motivations behind them. *The Silmarillion*, in turn, acts as a backdrop and backstory for *The Lord of the Rings* (Tolkien 1954-1955), which frequently alludes to its material and, in a sense, is *The Silmarillion*’s climax and conclusion. For example, Aragorn is distantly related to Beren, whose romance with Lúthien mirrors Aragorn’s romance with Arwen; and Aragorn is also the heir of Isildur, whose weakness and fate he hopes will not match his own. While one can read and enjoy *The Lord of the Rings* without having read *The Silmarillion*, knowledge of *The Silmarillion* adds to the story’s depth and nuance, enhancing the reader’s pleasure and understanding.

While Tolkien’s Arda, the world of *The Silmarillion* and *The Lord of the Rings*, was created by a single author (although his son Christopher helped with the maps), today’s transmedial, transauthorial franchises are built by dozens of authors, and comprise hundreds of works in various media, and the number of world data in these worlds can become incredibly unwieldy. For example, on 20 July 2012, Leland Y. Chee, Lucasfilm’s keeper of the *Star Wars* franchise bible known as the Holocron, reported that it contained a total of 55,000 entries, including over 2100 different types of vehicles, 2900 species, 5300 planets, and 19,000 characters (Chee 2012). Some of these bibles are produced even before a world debuts, like the 350-page *Pandorapedia* compiled by a team of experts for James Cameron’s film *Avatar* (2009). Show bibles are also commonly used for television shows set in imaginary worlds, like *Battlestar Galactica*, or *Dark Skies*, or *Star Trek: Voyager* (often, samples of these bibles can easily be found by searching the Internet).

Saturation can affect one’s experience of an imaginary world in other ways as well. In many video games, especially those of the adventure game genre, players must be able to remember a wealth of details about the game’s imaginary world in order to put together its backstory and solve puzzles, both of which are often needed to win the game. The worlds of the largest massively multiplayer online role-playing games (MMORPGs), with their vast territories, millions of player-characters, and ongoing events, are too large for any player to know in their entirety, allowing even the most hard-core players to achieve saturation. The amount of detail and information, which overwhelms the audience, imitates the vast amount of Primary World information that cannot be mastered or held in mind all at once.

What happens when world data continues to be added after the point of saturation? To continue our liquid metaphors, this is the point at which
overflow occurs. An overflow beyond the point of saturation is necessary if the world is to be kept alive in the audience's imagination. If the world is too small, the audience may feel that they know all there is to know, and consider the world exhausted, feeling there is nothing more to be obtained from it. A world with an overflow beyond saturation, however, can never be held in the mind in its entirety; something will always be left out. What remains in the audience's mind then, is always changing, as lower levels of detail are forgotten and later re-experienced and reimagined when they are encountered again. For example, someone can read Tolkien's works in grade school, high school, college, and later; and with each re-reading, the reader will notice new things, make new connections, and reimagine events and characters due to the reader's own changed level of maturity and experience.

While this can also occur with smaller works that do not reach the same levels of saturation or overflow, it is those that do that provide more interesting re-visioning, as forgotten details return in new imagined forms, and new configurations of detail and information inhabit the reader's mind. Even in the case of visual media like film and television, in which images and sounds are concrete and fixed, the way we imagine the unseen parts of the world may change with each viewing. We may ask different questions and focus on different aspects that we had not previously considered, resulting in a different experience insofar as our speculation and imagination is concerned. These differences arise due to the way we complete narrative and world gestalten, which also depends on our own previous experience.

Thus, builders of imaginary worlds can use the stage of overflow to perpetuate their worlds in the minds of the audience, and bring them back for the challenge of trying to contain it all, to make new connections, and new conceptualizations that reveal new ways of thinking about a world. In order to control what happens during the overflow stage, world builders need to consider what exactly is occurring during it.

So what exactly becomes lost when overflow occurs? At first glance, it may seem that new information displaces old information, and that the oldest data are the ones to be forgotten first. But the significance of various details differs greatly, and not everything is granted equal importance by the audience. It might then seem that the least significant details are the ones that are forgotten, things tangential to the main storylines, or details on the fringes of world infrastructures which appear infrequently or have very little role in the world's events. But here, too, the significance of details is something that is guessed at by the audience, who may misread their significance, or even be deliberately misled by the author as to what is
significant and what is not. An example of such misdirection can be found in murder mysteries, where clues are often planted in such a way as to seem extraneous or inconspicuous, and only later is their significance revealed. Sometimes details take on more significance as a world grows, even for an author; for example, the magic ring that Bilbo finds in *The Hobbit* (Tolkien 1937) becomes a central part of *The Lord of the Rings*, though it was not intended as such from the start.

Story and world details are not so much lost as combined with other data into hierarchical units through which a world is represented, through a process known in psychology as “chunking”. In *Thought and Choice in Chess* (de Groot 1946), chess psychologist Adriaan D. de Groot wrote about how chess masters conceptualized and memorized positions differently than ordinary players, grouping the pieces together into larger units that are meaningful wholes. The process of grouping elements together in order to deal with more of them in one's working memory was later termed “chunking” by George A. Miller in 1956, and the process has been written about in psychological literature since then (Miller 1956, 81-97). Chunking involves grouping lower-level objects or details into higher-level “chunks”, enabling the user to hold more in working memory, and also facilitating storage and recall as well. Examples would be grouping numbers or letters together into larger units for memorization, or configurations of pieces on a chessboard, or even stars into constellations. In the case of narratives found in novels, the divisions between chunks are already suggested by the author by the way the story is divided into chapters, since these breaks often give coherency to the events contained within a particular chapter.

When applied to a world, chunking will most likely involving grouping details within world infrastructures, such as maps, timelines, languages, cultures, and so on, combining them into a chunk with a higher place in an infrastructure hierarchy. Characters may be grouped with the families or institutions they are part of, buildings with the cities they are in, foreign words with the languages they belong to, and so on. For example, even though they are all introduced by name, most people will probably not remember the names of all twelve dwarves in *The Hobbit*, but will instead think of them as Thorin's company. Characters may be grouped into the peoples they belong to, and likewise, we may have an image of a land like Mordor, Gondor, Narnia, or Islandia, even if we do not remember all the geographical features they contain. Whether it occurs consciously or unconsciously, chunking causes the audience to analyse a world and determine how to group its elements, and the more elements that are combined into a chunk, the richer those chunks, and the world overall, will seem.
Builders of worlds, then, can use overflow to their advantage for different purposes. First, overflow can promote chunking and enrich the audience’s experience, engaging the audience in the act of organizing, categorizing, and combining the world information that they encounter, similar to the completion of a world’s gestalt. Just as visual gestalten allow one to complete an image from partial visual information, world gestalten involve piecing together data and clues that allow the audience to extrapolate world infrastructures and speculate on questions that world information does not answer directly. Chunking combines elements together as well, and though it need not include the same filling-in process, the higher-level element that results from the process may seem more complete than the collection of elements that make up the chunk, since connections will be made despite missing pieces that would have otherwise been a part of the same chunk.

Second, overflow encourages audiences to make return visits, during which they can re-experience and re-conceptualize a world, improving their understanding and mental image of it; the pleasurable challenge of trying to hold everything in mind is something one finds often among fans, as discussions of small details, and the respect given experts in Internet forums, can attest. Great amounts of detail allow one to change one’s focus on subsequent readings or viewings, and each one can refine one’s mental image of a world. For example, reading *The Lord of the Rings* as a child, young adult, and older adult will likely produce somewhat different conceptions of Middle-earth at each reading; not because the text has changed, but because the reader has.

Finally, overflow allows authors to hide data temporarily (as in the murder mystery example above) and also to hide what we might call aggregate implausibilities, those inconsistencies that are only noticeable when a range of different data are brought together and compared, even though each datum, taken separately, is plausible by itself. The fact that overflow also encourages multiple readings or viewings means that these inconsistencies or mistakes are also more likely to be discovered, but, quite often, audiences seem to enjoy finding them, though only if they are so well-hidden that finding them makes one feel as though one has achieved a certain level of mastery over the text or world. These mistakes, then, become fodder for trivia games or fan-forum Internet discussions, wherein participants not only use knowledge of these errors to show their mastery of a text or world, but also try to explain away such inconsistencies through the application of other world knowledge, an act that, perhaps, can be explained by the fact that one does not want to feel that a world that one has invested so much
time and effort in is not as consistent as one would like it to be, which would damage the illusion that one has worked so hard to preserve and enlarge.

If overflow continues as chunking occurs, higher and higher levels of chunking will be encouraged. This does not, however, simplify a story or a world, since chunks are constantly disassembled and reassembled as new information reconfigures the relationship between existing chunks. With large amounts of world material, audiences can choose between many different ways of chunking material. They may connect their own narrative threads, following characters’ lives through a series of works, or the history of a location, or chains of causes and effects that stretch across multiple narratives set in the same world. World builders have often used this as a reason to develop new parts of a world, and they may even be influenced by which parts of a world seem to inspire the most interest in their audience. For example, Boba Fett began as a relatively minor character in *Star Wars Episode V: The Empire Strikes Back*, but the enigmatic character found great popularity among fans, resulting in his backstory being given in *Star Wars Episode II: Attack of the Clones* and his being retconned into *Star Wars Episode IV: A New Hope*.

The desire to gather large amounts of world information and chunk them into ever-greater understanding and more complete mental images of a world can partly explain the popularity of non-narrative ancillary works like dictionaries, encyclopedias, glossaries, technical manuals, and other reference works based solely on a world and its information. While, to the outsider, such works might seem tedious at best and be criticized for being heaps of made-up data and details that have little or nothing to do with the real world, to the person saturated with an imaginary world, they can be seen as the answers to questions and verifications of speculations, that provide a way for the audience to measure the accuracy of their own guesses about a world, as well as further information and glimpses of a world not provided in any previous works. World builders who attain this level of interest in their worlds within their audiences have even more options for releasing world information, allowing them to round out their worlds in areas that they might otherwise not have been able to, for example, in the development of languages, geography, technical information, or other data that would be difficult to include within a story. Such practices also encourage transmedia world building, which provides multiple venues for world information and narratives, and the range of different media windows through that a world is seen helps to make the world seem more real, more like the Primary World (our world), which is often experienced through multiple media.
The related phenomena of immersion, absorption, saturation, and overflow, then, help to explain the process of the experience of an imaginary world and consideration of how they operate can aid world builders who wish to maximize their effects. Plenty of popular worlds already provide examples of successful world building that leaves fans hungry for additional world data, no matter in what form it is released. Some of these have been around for decades and grown so enormous, that it seems inconceivable that anyone, even with a lifetime of study, could master all the details that they contain. Such imaginary worlds, then, are the largest and most complex entities ever conceived by the human imagination, and it is no wonder that so much time is spent in contemplating and visiting them.

Notes

1. An example of an aggregate implausibility appears on page 47 of my book Building Imaginary Worlds: The Theory and History of Subcreation, which has to do with Bilbo and Gollum being able to understand each other’s language, despite the differences in their cultures and the passage of time.

2. Occasionally, franchise creators will [...] go back and alter earlier works to make them consistent with later ones, a process now referred to as “retroactive continuity” or “retcon” (see also: Wolf, 2012, 46).

Works Cited


Beyond Immersion


Media Cited


About the author