

# Making and Analyzing Games: Not as Art, but as Literature

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## ABSTRACT

Despite the common tendency to understand computer games as a medium somewhere between film and traditional software, this paper argues for a more appropriate position amongst literature. This writing explores the opportunities in analogizing digital games not as art, but as literature. Within this framing new opportunities reveal themselves for innovative game design and more manageable archiving of games and their relationships. It should prove useful to media theorists, designers, and game librarians seeking a new way to frame the analysis and production of digital games.

## Categories and Subject Descriptors

J.5 [Computer Applications]: Arts and Humanities

## General Terms

Documentation, Design, Experimentation, Human Factors, Theory

## Keywords

Game analysis, game design, game archiving, digital game critique, critical game studies.

## 1. INTRODUCTION

In the ever-developing analysis and production of digital computer games there are many perspectives through which games are viewed. There is the game as software model adopted by human computer interaction and engineering disciplines. There is the game as a new media creative work adopted by the art community. While it is inaccurate to call these perspectives insufficient, it is true that they lack a few important nuances about the design of games.

This writing endeavors to explore concepts in understanding games from a literary lens. The claim is not simply that games are more like literature than other creative forms. Such framing is outside narratology and ludology. This literary perspective does not require games to be understood as narratives. It asks that games be analyzed, critiqued and designed as literary works, where literary works include the range of literary forms, from poetic to epic.

Instead, the priorities of literary analysis seem to fit the efforts of game designers well. Literary texts and digital games share elements worthy of complimentary analysis. Games are much more than their visual aesthetic qualities, as they incorporate author decisions in sound, audience, and experience. The aesthetic assumption also ignores audio games which may have no visual components[1].

In short, games can be better understood if they are framed structurally (Narratology) through their ludic characteristics (Ludology). This involves extending the typically aesthetic foci of experience to the scientific pragmatics and sociologic awareness present in all games.

To understand this type of analysis, researchers need to understand three basic concepts. First, that games are designed through the arrangement of verbs and nouns. Secondly, that the structural relationship of these nouns and verbs describes a game more vividly than traditional type and genre do. Lastly, that the affordances of games are derived from the interaction of technical limitation and designer objective, similar to the narrative expectations of a literary work's audience and the physical limitations of publication formats.

## 2. Verbs and Nouns in Games

To understand the value of analyzing games as literary texts, it is important to understand that game designers define games as a structured collection of game verbs and game nouns [2]. The game verbs describe what players do in the game, while the nouns are the items that act, or are acted upon. In basketball, players have the verbs dribble, shoot, run and block available to them. These actions constitute the verbs of the game. Players, boundaries of play, and the basketball are some of the nouns in the game.

In digital games, designers afford players the ability to do a variety of verbs not available in the physical world. Such verbs include teleport in Portal [3] or rotate world in And Yet it Moves [4]. They also supply the objects on which the player acts, some of which have no equivalent in non-game worlds. These include the myriad of mythical creatures, impossibly destructive weapons and other such imaged wonders.

The sum of these design decisions presents a point of sociologic evaluation. In digital game worlds, where the imagined affords the greatest possibility, there is opportunity to contextualize game verbs, nouns and their interaction. Many such interactions are defined by the cannon of precedence. These precipitate from seminal works, such as the first role-playing games, real-time strategies or first person shooters. Others reflect an evolution from these standards. The most interesting demonstrate a complete departure from standard noun-verb interactions, often defining a new set of standards.

The opportunity for sociological evaluation is largely a contextual one. It asks questions like what does it mean to shoot an Iraqi [5] in the context of the American war on terror, as offered by performance artist and game designer Wafaa Bilal. It asks questions about the evolving role of female representation in games.

Until recently these questions were framed by narratology and aesthetic, asking questions about the image of females in games or the actions female characters take in a larger narrative. It is perhaps more productive to ask ludic questions about role, such as what do female player characters do that male characters don't? To what extent are player verbs gender neutral? Are there evolutions in game verbs and nouns that follow a sociological evolution in play? Such questions are most kin to literary studies, where questions about Hamlet's inaction (or failure to verb) abound [6]. They are often informed an audience psychology which must be read after the game has been produced and played.

Design also communicates the object that represents the player in the game world as character. Thus terms player character and non-player character abound in design documents and critical reviews of games. Players have come to expect congruence between player character and the world they inhabit. Games that lack consistency between player and game setting tend to deteriorate immersion [7]. Formal academic practice in understanding the immersive qualities of games, describes shocks and sureties [8]. Shocks are elements that break the fiction of a digital game experience, while sureties preserve that fiction. While often discussed in their visual form, shocks and sureties are also very much relate to design decisions in game verbs and game nouns. So, for example, the introduction of unexpected or inconsistent game verbs and nouns delivers a shock to player immersion, as experienced in the commonly disapproved game *Superman 64* [9]. A shock or surety resulting from a design decision is similar to a poorly constructed sentence. Players, like readers, respond with the complaint that it simply doesn't make sense.

In this conceptual model, play is analogous to reading. A game designer constructs verbs and nouns to be played, just as an author arranges words to be read. The task of good game design is often reduced to the arrangement of these key elements. A game designer is trying to effectively arrange verbs and nouns to create an experience impart a theme or even incite social action.

Designers interested in creating games with meaning also arrange the game verbs and nouns to create meaning. Designers understand for example, that the verbs destroy and banish, are very different, even if their aesthetic representation is very similar. At the surface, many games may seem similar when reduced to their engineering description. To reduce these types of play as such is like claiming that poems that use the same words are equivalent. In reality, their atomic parts may be the same, but their arrangement is their value.

The science of game design is in masterfully manipulating the rules of verb-noun interaction while not breaking either. The art is in respecting experience aesthetic to accomplish designs goals like flow, suspense, excitement or sympathy. All of these are contextually positioned by a sociologic factors of play audience.

Literature has a set a set of rules dictated by language which demonstrate how to fabricate a sentence using verbs, nouns and related elements. The literary art is respected for its ability to create experiences which involve, motivate and provide perspective. The product of literary efforts is typically analyzed by understanding the sociology of its reading audience.

The similarities between games and writing begin to show.

### 3. Genre and Type

If digital games are to be understood as collections of verbs and nouns it is clear there are patterns to their usage. Games are traditionally defined by their combination of game subject and gameplay style. These are typically defined as game genre, the style of game play and game type; the mechanics of gameplay. A game such as *Halo* [10], for example, has a game type of first-person shooter, and game genre of Science Fiction.

Layering this understanding with a literary layer helps clarify this distinction. While game genre borrows much of its language from narrative, the concept of type is aligned to design tasks. In a typical first person shooter the player expects that the verb shoot be required as part of play. Herein lay the fundamental design problem. Under such categorization, a game that relies on all of the other game type characteristics of first person shooters fails to find a place within its general category. A game that employs the mechanics of a first person shooter (e.g. 1st person perspective, running, jumping) without the shooting, fails to be a first person shooter. It is some other, such as a first-person unshooter or first person painter [11]. The aforementioned game, *Portal*, for example is commonly described as a single-player first-person puzzle-platform sci-fi game. Such a description is clunky. It is dense, yet it leaves much of the character of the game out.

Understanding games through a literary lens affords for a more inclusive and more descriptive categorization. Instead of defining a game relative to the conventional antecedent game mechanics, the game could be articulated by the relationship of its formal structure.

With further research, a collection of structural categories can be constructed from formal analysis of game verbs and nouns. Just as the world of literature distinguishes pulp fiction from dystopian fiction or ode from sonnet, the world of game design could construct its own structural distinguishers. These structures are likely to be described from a ludic perspective, incorporating how the game is designed to be played instead of focusing on the ways in which the game relates to other types of historical media. It is not enough to describe *Red Dead Revolver* [12] and *Gun, Smoke* [13] as games in the wild west tradition, because they may both have the same setting, but they are structured very differently. It is also not enough to describe them both as shooters.

The task of determining the particular categories of arrangement of verb and noun that make the most senses for digital game design is beyond the scope of this writing. It is a large task that like literary forms is likely to change over time. For now it is enough to understand the potential in describing games as narrative bare or rich, as paced quickly or slowly, as containing wide or narrow noun variety and more. The formal categorization of such can then precipitate useful categorizations based on the individually designed elements of the game, instead of the mere relationship to games that preceded it. It also helps distinguish the visual qualities of the game, which while important, are not fully descriptive. Under current definitions for game type, the only visual descriptor is perspective (i.e. first or third person) for example.

Such analysis also affords an informed dissection of design tactics. Just as literary tactics can be discussed, literary analysis of games can decant a kind of elements of style for game design. This offers not only the critique of end result, but of process and structure. This is particularly important when considering

allegorical or social-impact play. These types of games often employ procedural rhetoric which imparts its claims through game verbs.

#### 4. Understanding Affordance and Constraint

One of the most important reasons to distinguish game design as literary practice instead of aesthetic practice comes from the notion of affordance and constraint. Designers afford players certain abilities, but they also constrain them to improve the play experience. In the example of basketball, players are afforded the ability to dribble a ball, but they are constrained from carrying the ball. Designers of games, both digital and non-digital make many decisions about what to afford players and what to constrain them from doing.

Computer based technologies are always a balance between affordances and constraints, just as designers must offer their players affordance and constraint. Computers always afford and constrain. Designers of digital games are afforded the ability to provide verbs not available outside the computer, but they are often hardware constrained. Early computer games, for example, were limited to 16 color palettes and 32K images. The resulting aesthetic experience was a hardware constrained experience. Designers did not necessarily want so few colors, but their audience was also constrained by their ability to view. However, the fundamental dilemma is that both designer and audience did understand that there were more than 16 colors; the hardware simply couldn't support more.

The history of game design has always been limited not by artistic vision, but by artistic tool. Audience (not viewer) and artists, in this relationship, both understood more than the medium allowed. By fault of such stringent hardware limitations the nature of the experience changed. The player extended the world described by the game with the experience they imagined. 16 pixels stacked upon each other became a person, or a starship or the subject of an epic struggle. This experience is more like that of a reader, who must organize the words represented by ink dropped and paper to imaging a richer aesthetic experience. Suspension of disbelief, a narrative and literary term, finds as much home in the digital game play experiences as it does in the novel.

There is also fascinating analogy in the history of printmaking and the seeds of the first mass-produced books. Gutenberg's first print, the 42 line bible, a publishing first was constrained by the science of the world-changing production press. It required a reformatting of a well known text, but also afforded its transmission. The printing press changed the world and afforded access to otherwise costly books to a wider audience. As a designer, Gutenberg was balancing affordance and constraint to match his medium. This is part of history common to many technologies, from early computer graphics to 3d stereoscopic displays. The design reflects a set of compromises required by the technology. A designer might imagine an MMORPG with the diversity of the real world, but the database backend of a computer requires the systematic decomposition of virtual avatars into key characteristics. The rich imagined world is reduced in resolution to male or female, specific races, specific body characteristics, concrete abilities and a myriad of unambiguous attributes.

It took hundreds of years for the products of the printing press to change their underlying structure. It wasn't until the Futurists that the conventions of page layout were tested and the notion of

linear narrative challenged with exercises of simultaneity and non-linear narrative [14].

Likewise, the conventions of games are tightly bound to its history. The old genres have been comingled to produce multi-genre play, but the fundamental assumptions about affordance and constraint persist. Just as it was once assumed that all narratives should prescribe to Aristotelian structure, digital games have an uncanny commitment to user control through visual feedback. Even popular, mainstream audio games rely heavily on the visual. Genre establishing games like Rock Band [15] masterfully execute the play convention of follow the leader, as do writers of popular fiction employing Conrad's hero's journey in narrative structure. Under such framing, such games represent the affirmation of standards, represented by authors like Steinbeck or Hemingway.

Such work begins with the assumption of convention. They assume that stories have protagonists, follow narrative arcs, and elements true of the vast majority of literary works. These assumptions are the constraints of the creative work. They are much like the assumptions that games have graphics, that players control a single character at a time, or that games have clear beginnings and ends. Yet, it is after analysis of these constraints that the medium evolves toward new heights. This evolution and analysis of affordance produces Dr. Seuss, E.E. Cummings, Kurt Vonnegut and other genre breaking authors. It also created games like Braid[16] and the impressive collection produced through the experimental gameplay project [17]

Why then is it reasonable to analyze the work as visual aesthetic art? Digital games ask of their players many of the same things masterful writings do. They ask players to imagine and they ask players to experience a narrative constructed before their first visit. Games make arguments and they prescribe solutions.

#### 5. Conclusion

In the relatively short history of digital games, there is an emerging pattern of creative use of verbs and nouns. Games have moved from mimicry of the physical world to the invention of game verbs that can only exist in the computer. Games have also matured in their aspirations. There are far more games that seek to involve emotions beyond the base instincts to survive described as natural funativity. There are also games that seek to motivate players to change the world they live in. As this medium matures, it seems clear that the old view of games as software or games as art is falling short. Like the history of language, movement toward the complexity of literary forms indicates a matriculation toward positive development. It provides a framework that begs to be questioned, but expands the many assumed constraints.

It is important to understand that not every game is worthy of literary review; just as not every piece of writing is worthy of literary scrutiny. However, as the game community constructs a cannon of games it is important to understand the many games that are being built. It is important not merely to understand the range of entertainment, educational and emotional content experienced. It is not simply valuable for providing an accurate view of the artifacts of play. It is important in constructing the cannon of play experience. A literary view changes the way games are analyzed. In so doing, it draws attention to content not as the product of software or aesthetic decision, but as content decision. It is an analysis of subject and vehicle, of claim and

method of claiming. It is essential to the effective understanding of creative process and future synthesis of masterful work.

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