

Approaching the Cognitive and Social Functions of *World of Warcraft* Fan-Comics

ROGER DALE JONES, *Justus Liebig University of Giessen*

ABSTRACT

This article addresses the question of how video game players make sense out of their experiences by looking specifically at *World of Warcraft* (Blizzard Entertainment 2004) fan-comics on the official game website. It first develops an analytical framework consisting of *game discourse* to address the different levels that fan-comics refer to the “game” and *game narrative* to address the ways in which fan-comics utilize narrative aspects of the game in their stories. *Sense-making in comics* is then used to address how fan-comics use graphic images and verbal text to embed (and narratively frame) conflicting perspectives into specific cognitive and social forms of sense-making. It then applies this analytical framework to three *World of Warcraft* fan-comics that participate in three different levels of game discourse and presents three different types of sense-making processes. Finally, the article raises questions for future research on the sense-making processes and strategies of video game fan-comics.

KEYWORDS

Narrative, sense-making, fan-comics, video games, game experience.

Introduction

The past few decades have yielded serious work into what was long considered a frivolous activity by many in society. Yet in a time of “fast capitalism” and globalism, it seems that “play” and its formalized structure in digital games have taken on a new relevance in society. In fact, digital games have gained enough momentum to not only lead to the formation of game subcultures, but to also have a noticeable impact on mainstream western society.

In this article I would like to address two imperatives I believe arise from the cultural and societal changes brought about by digital games and game culture. The first imperative concerns the need to make sense of individual gameplay experiences and to critically reflect on the meaning of those experiences for everyday life. I consider here narrative to be a fundamental sense-making mechanism (cf. Bruner 2003, 7-8; 2004, 691; Gottschall 2012, 176, Herman 2013, 75), and posit the idea that narratives about games serve a valuable cognitive function in processing gameplay experience. The second imperative, which is related to the first, involves the importance of turning solitary experiences into “cultural coin” that can be communicated among individuals – a communication that can be seen as foundational for the formation of social communities and individual identities (cf. Bruner 2003, 16; Herman 35, 106). I therefore claim that narratives about games, and especially the increasingly popular genre of fan-comics, serve a social function by working individual game experiences into socially recognizable forms. This approach can be understood in the context of a larger question of whether such fan-comics are purely for entertainment or whether they contain intrinsic cognitive and social value.

To answer this question I take a closer look at three *World of Warcraft* (WoW) comics located in an online archive on the official game website, and provide an analysis that investigates both the cognitive and social functions of game experiences in comic form. This inquiry is based on an analytical framework that consists of theories on *game discourse*, *game narrative* and *sense-making in comics* to help explain how players experience the game on different levels, how game narratives influence narrative experience of games, and how these game experiences are represented in the genre of comics.

On game discourse, game narratives, and sense-making in comics

WoW fan-comics, like many video game fan-narratives, are diverse in their types and strategies of storytelling. While nearly all video game fan-comics deal with game experience directly, they can utilize those experiences to engage in multiple layers of discourse about games. Here, discourse can be understood as internal and external. Internal discourse refers to the inner processing of certain elements of games and game experiences that are scaffolded largely by language and semiotics. External discourse refers to the external negotiation of meaning as described by Herbert Blumer’s symbolic interactionism (1969, 2). It can occur amongst friends and family, in mass media and even in academic research. Jesper Juul’s game model (2003) consists of three levels for understanding game discourse and illustrates the different ways narratives on and from games can address game experience on both internal and external planes.

Juul’s first level, *the game*, refers to the ‘formal system’ that consists of ‘rules’ and ‘variable and quantifiable outcomes’ (34-35). For a digital game, for instance, *the game* can refer to the hardware, software (its coding), or its semiotic interface (the “gameworld” as presented through a screen). Discourse on *the game* provides a relatively objective view of game

systems and the interactions they allow players. Existing theories of game narrative can be applied to this level of discourse, and a quick introduction to those theories helps elucidate how players make sense out of and re-present those narratives in fan-comics. Calleja's 'scripted narrative' describes narrative elements written into the game's coded system (2011, 115). In *WoW* for example, the scripted narrative can be differentiated into two further types. The first can be seen as Henry Jenkins' 'narrative architecture', or objects, settings and characters which contain symbolic meaning and encourage narrative comprehension (2004, 118). The second type describes explicit narratives built into the games through short filmic events in the game that Calleja calls 'cut scenes' (2011, 120) and through quests givers – non-player characters (NPCs) that provide players with quests.¹ Nearly all fan-comics contain aspects of this first level of game discourse, but these aspects may be merely employed to frame other levels of game discourse.

Juul's second level, *the player*, refers to the interaction between 'the player and the game' and focuses on the unique 'valorization of outcomes', on 'player effort' and on the 'player attachment to the outcome' (2003, 36-37). Unlike the first level, this second level of game discourse focuses on the unique properties of the player and emergent gameplay. Calleja's concept of 'alterbiography' describes the narrative comprehension of gameplay (2011, 120) and correlates well to Juul's level of *the player*. Because narrative comprehension during gameplay relies on the game as the object of interpretation, the player's alterbiography is largely influenced, though not fully predetermined, by the scripted narrative elements of the game. Because players are presenting their game experiences through fan-comics, aspects of alterbiography often play an important role, even if player interaction is not always the focus.

Juul's third level, *the world*, refers to 'the game and the rest of the world', and the 'negotiable consequences' that players and non-players can assign to it for real life (2003, 37-38). While discourse on *the world* focuses on the real-life consequences of gameplay experiences, it can still utilize multiple levels of game discourse. Unfortunately, there is very little research on narratives and storytelling practices that occur outside of games and in this third level of discourse.² Therefore I will call such storytelling practices in this third level of discourse *metagame narratives*, drawing from the research of Gee and Hayes on 'metagame' social practices (2012, 130). Although all video game fan-comics fall under the category of metagame narratives, they can still intervene in a field of game discourses by focusing on *the game*, *the player* and/or *the world*.

However, investigating the functions of video game fan-comics, and especially the level of discourse in which they ultimately operate, requires a closer look at the different strategies of experiential representation and conflict-embedding that fan-comics employ. This task can be complex since *WoW* fan-comics utilize multiple game narrative levels as perspectives within their stories. Furthermore, these perspectives can be presented in comics both graphically and through written language. David Herman's work on multimodal narration (2013) addresses issues of multimodal perspectives and lends itself well to the analysis at hand. Herman's model (fig. 1) illustrates how a multimodal narrative like a comic can 'world' a story by embedding multiple conflicting 'reference worlds' (RW), or perspectives, through different 'semiotic channels' (SC) such as graphic and linguistic (2013, 111).

¹ Quest givers not only provide tasks but also a narrative background, explaining the conflict behind the quest and the NPCs' own involvement.

² For research on video games and fan-fiction, cf. Lammers (2012) and Magnifico (2102). I differentiate here strongly between fan-fiction and fan-comics since the latter rely largely on autobiographical (or "alterbiographical") experiences of players interacting with the games.

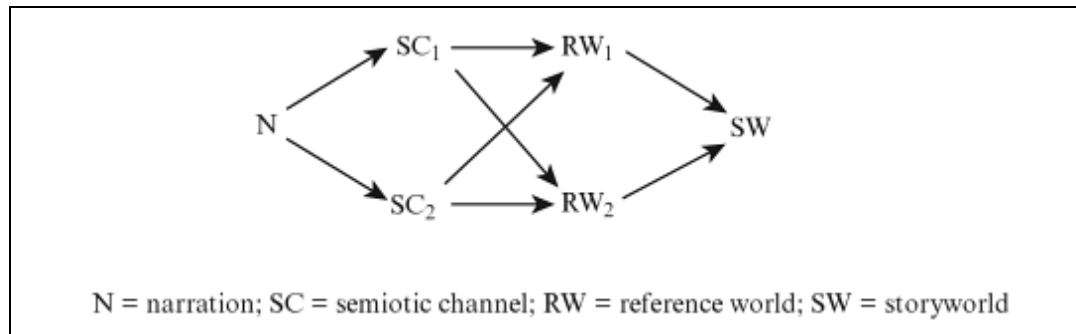


Figure 1. Herman's model of multimodal narration used to evoke multiple reference worlds
 (Source: Herman 2013, 111. Reprinted courtesy of David Herman and The MIT Press.)

Embedding multiple perspectives into a comic can introduce a complex system of knowledge, experience and ideas into representations of game experience. It can also set the stage to make coherent sense out of conflicting perspectives by raising problems and (possibly) offering solutions. Furthermore, by placing game experiences in the schematically recognizable form of comic narratives, fan-comics are able to disseminate these complex networks of information and perspectives across communities of shared experiences. Below I present analyses of three different *WoW* fan-comics that rely on this analytical framework of *game discourse*, *game narrative* and *sense-making in comics* presented in this section. More precisely, I have chosen the following comics to exemplify two types of problem raising located in both the first and third level of game discourse, and one type of “world-building” located in the second level of game discourse.

Problem raising – systemic conflict

The first comic presents player experience surrounding the in-game practice of herbalism, a profession that players can “learn” in *WoW*. With this profession players can harvest herbs to either sell for in-game currency or to make potions. Herbs are distributed throughout the gameworld and are usually found through exploration and “questing”. Once a herb is found, the player must place his/her avatar in its proximity and click on the herb. The avatar then automatically begins to harvest, initiating a process that lasts several seconds and is presented on the screen by a “progress bar”. If harvesting is interrupted for any reason, then the player must attempt to harvest the herb anew.

The comic, *Adventures in Herbalism* (Volvulus 2011), thematizes harvesting and reveals the frustration that players deal with when their efforts fail. The comic's story is divided into six panels that split the plot into small sections, highlighting a rather simple conflict between the protagonist, a tauren³, and the herb, a flower. The comic's irony is expressed through this panel-division and the exaggerated detail of the tauren trying to grasp and pull out a flower. While player perspective in *WoW* is usually third person posterior⁴, the comic provides an anterior perspective that highlights the tauren's (and player's) frustration. This player

³ A tauren is a Minotaur-like playable character in *WoW*.

⁴ While player perspective in *WoW* is always external and by default posterior, it can be manipulated by the player to provide anterior and side-views of the avatar at different distances. However, most gameplay occurs with a posterior view of the avatar so that the player can better guide the avatar through the gameworld.

perspective is further highlighted by the stylized representation of the tauren, who is wearing gardening attire not available in the game. However, the highly stylized representation of the tauren (through anterior perspective, focus on facial expression and gardening attire) is contrasted to the more or less realistic representation of the flower's identifying box and the progress bar for harvesting (both aspects of the user interface) that are seen in the actual game.

Despite the stylistic representation of the tauren and the anterior perspective, the comic depicts the player's alterbiography, or narrative interpretation of the game. However, I believe that the alterbiography is merely a "focalizer" employed to frame conflicts within the game-system itself. Furthermore, I claim that this framing provides not only a visual perspective but also a contextual and emotional framework with which to interpret the game-system. In other words, the conflict between the player and the herb is only a foil to a deeper conflict within the game itself.

To address this deeper conflict, I return to Herman's model of multimodal stories and compare the two distinct representational styles within the comic to Herman's reference worlds. The visually dominant reference world presents the player immersed in the game. This immersion can be described as a type of unity between the tauren, the flower and the background and is represented with a similar visual style. This unity, however, is not simply in the imagination of the player since it is scaffolded by the game's "narrative architecture" and its reliance on background knowledge of the real world to create the illusion of coherency (i.e. knowledge about the purpose of harvesting or on the physics of picking flowers). However, this first reference world is challenged by the reference world of the game as a rule based and coded system (that is based on an artificial, binary system of success and failure). These two representational styles produce a stylistic conflict that refers to a deeper conflict embedded in the game itself.

Strategies of embedding reference worlds into a single storyworld influence the effects that the individual reference worlds have on the overall story. Although the second reference world of the game's formal system is present in all six panels of the comic, its presence as a conflicting factor does not become apparent until panels two to four, where the tauren struggles to pluck the flower and where the progress bar communicates the player's failure. Thus the game system as a conflicting reference world can be seen as embedded within the original reference world of the player immersed in the gameworld. Furthermore, this conflict remains unresolved in the final panel as the tauren continues harvesting with renewed determination and with the progress bar hinting at the possibility of renewed failure. This delayed introduction of the conflict and the ultimate deprivation of a resolution coincide with Herman's concept of 'hierarchical unworlding', in which the lack of a resolution 'tangle[s] up the hierarchies on which interpreters of the text rely in configuring localized events into a larger storyworld' (2013, 159). Thus the narrative comprehension of the game that is dominant in the first panel is challenged by the game's formal system in the subsequent panels. The type of game experience and conflict presented in *Adventures in Herbalism* reveals intriguing insights for the sense-making processes of gameplay experience. If narrative is a dominant form of sense-making, and if narrative immersion into gameworlds like WoW is indeed desirable, then formal aspects of the game (like the one presented in this comic) disrupts immersion by interrupting the cognitive interpretation of "localized" gameplay experiences within the larger interpretation of the gameworld as a whole.

For this reason I claim that *Adventures in Herbalism* performs the cognitive function of problem raising⁵, focusing specifically on the inconsistency between the semiotic and ludic representation of the flower within the context of herbalism. The focus on the systemic aspects of the game places this comic in the first level of game discourse. However, this problem is raised within a specific framework of player behavior, as presented by the alterbiographical lens that oscillates between frustration and perseverance. This framing seems to pose a further (potentially social) function by raising a question surrounding the conflict and its seriousness: Should the inconsistency be fixed by removing the chance for failure during harvesting, or is the failure simply a minor annoyance that players should accept?

World building – ontological conflict

The second comic in this analysis thematizes dungeons and raids, common forms of collaborative gameplay in WoW. While players can spend their game time exploring the gameworld and completing quests individually, many players enjoy working with other players in-game to take on more powerful enemies. This collaboration often requires the complex teamwork of individuals with different roles and different skill-sets. The end goal of raids and dungeons is typically to defeat a specific boss, such as a powerful dragon, for “loot.” Loot in dungeons often consists of gold coins and possibly valuable armor or weaponry. However, many players also enter dungeons and raids because gameplay takes place in a social setting which is intense, and players can gain large amounts of experience points quickly.

The comic, *What bosses do after the Burning Crusade* (Khronuslight 2010), depicts five bosses playing poker, with their gold coins and armor (which can be looted by players) laid out on the table for betting.⁶ This depiction poses a challenge to both comic and narrative definition since it consists of only one panel. While some comic researchers would exclude this example from their definition of comic (cf. McCloud 1993, 9), this article draws on Ian Hague’s conceptualization of a social definition of comics (2014, 80), because the WoW website categorizes it as a comic and because the game community as a whole accepts it as such. In narrative terms, the lack of sequenced events through individual panels poses a problem for narrative interpretation, and thus for the assignment of this comic as an act of narrative sense-making of in-game experience. However, this comic must be seen within the larger context of lifeworld and game experience, including the general schematic knowledge of specific cultural practices and rituals, such as poker nights, as well as background information about the bosses in the original WoW edition as well as their new role and value after the first expansion. Considering the comic’s larger contextual framework, the depicted scenario can be seen as presenting what Gotthold E. Lessing called a pregnant moment by suggesting both a past and a future that embeds the single image within a series of events (cf. Ryan 2010, 19). The pregnant moment depicted in the comic supports a narrative interpretation as well as an analysis of narrative sense-making.

For the first comic discussed in this article, the alterbiography provided a focalizer to the comic’s story that foregrounded the game system and the conflict between its narrative/semiotic and ludic representation of a herb. Here, the concept of alterbiography is

⁵ See Herman (2013, 239) on cognitive functions of narratives and problem raising.

⁶ All characters (‘bosses’) in the comic are from WoW’s initial release, sometimes called “classic” or “vanilla” WoW. The release of the first expansion, *The Burning Crusade* (Blizzard Entertainment 2007), made these depicted bosses and their loot obsolete. A special thanks goes out to Daniel Goodbrey for pointing this out.

less applicable since the player's character is absent, and since the setting and plot takes place outside the player's experiential realm – indeed outside of the “reality” of the game itself. The characters in this comic are more easily categorized as scripted narrative for two reasons. First, they are controlled by the game system and second, they are semiotically loaded with the practice of raids and dungeons that frame the player's experience with the bosses. This focus on the scripted narrative of the game could lead the reader to believe that the focus of the comic is on *the game* as a formal system, but this would ignore the fictional elements of the comic and the creative role it plays for sense-making of game experience.

One element that has yet to be addressed is the comic's conflict, which appears to be explicitly absent due to the single panel. However, I argue that the conflict exists outside of the comic and in the mind of the reader, and emerges from the clash between two reference worlds that deal with fictional and non-fictional aspects of the game, as well as logical systems of thinking that underline them.⁷ On the one hand there is the reference world of the game as represented non-fictionally within the comic. This world consists of actual bosses with actual loot, placed in the actual setting of a room (note the screenshot from the game that provides the background in the artwork of the comic). This reference world presents a logical coherence between characters and items that can be found in *WoW*. On the other hand there is the reference world of the player as comic creator who presents the bosses in the fictional activity (with the game serving as a non-fictional reference point) of a poker game. Here, the bosses take on a fictional life (that continues beyond player observance) and fictional roles beyond being simply an “enemy”. In other words, the bosses are being made more “human”.

This reference world presents a logical coherence with the player's understanding of the real world, and the social lives of people as well as the multiple roles they play beyond our observable experience of them. However, these two reference worlds can be seen as existing in harmony in the single panel of the comic. The pregnant moment it presents, the conflict of its representation, emerges in the mind of the reader and the work he or she must do in separating “fact” from “fiction”, or which aspects from the comic exist in the game and which have been imagined by the comic creator. This comic can thus be seen as presenting an alternate world, one that extends beyond the experienceable gameworld. Furthermore, it “unworlds” the game by presenting a possible world that follows a real-world logic. This type of unworlding can be considered “lateral” (compared to “hierarchical” in the first example) since both reference worlds are presented concomitantly within the single panel of the comic. A possible function of lateral unworlding, according to Herman, is to exploit ‘the intrinsic revisability’ of a story (2013, 159). In this context, the revision of the game's scripted narrative comes through the player's creative extension of the gameworld and its characters beyond player observation and interaction.

What bosses do after The Burning Crusade presents this game extension in a light and humorous manner. At the discourse level of *the player*, it presents a type of interaction with the game that takes place outside of the digital gameworld itself. This imaginative work of the player falls in line with what Herman calls ‘making places,’ or the ‘narrative saturation of space with lived experience’ (2013, 283). It reveals an attempt to make a larger sense out of the game and its world by applying typical real life experiences and situations to bring computer controlled characters “to life” (while at the same time highlighting the superfluous role of these particular bosses and their loot). Within the larger social sphere of the *WoW* website, this act of place making can inspire the imaginative place-making of other players as

⁷ Here non-fictional aspects of the comic refer to those that actually occur within the game. Of course this label can be confusing since the game itself can be labelled a work of fiction.

they react in the comic's comment thread. Furthermore, this comic engages implicitly with other place-making fan-comics on the website.

Problem raising – behavioral conflict

While the first and second comic thematized the profession of herbalism and bosses respectively, the third comic deals with quests in the gameworld. Although most of the gameworld can be explored freely, the game's progress-structure is predefined largely by quests. Quests typically involve defeating enemies or collecting items, and their completion provides experience points, currency and often valuable character items like armor and weaponry. Quests also serve a narrative function by involving players in stories that integrate the gameworld and non-playable characters into a coherent place. Furthermore, the completion of one quest usually activates further quests that motivate players to explore new areas and take on new challenges. While most quests are provided directly by quest givers (non-playable characters that players can interact with), some can come from message boards, or from documents and objects that players find throughout the gameworld.

*“Do it yourself”*⁸ (Nyklia 2010) presents a comparison of an in-game and out-of-game setting in a total of three panels. The first two panels depict an elven avatar (on the right in the first panel and on the left in the second) happily accepting quests from two separate quest givers.⁹ The third panel, however, switches setting and depicts the actual player of the elf sitting in front of the computer. In this third panel the player's gameplay has been interrupted by a character outside of the panel's representation (possibly a parent), who asks the player to take out the trash. The player's response in this third panel contrasts the player's in-game, overwhelming acceptance of quests in the first two panels, as she rudely refuses the request by flatly stating, ‘Do it yourself.’¹⁰

The interactions between the different reference worlds and the unworlding it inspires are particularly relevant in this comic. In the first two panels (representing the gameworld) the player appears to be in harmony with the game's rules, scripted narrative and quest givers. While these two panels could be analyzed as containing multiple reference worlds, as has been done in the previous fan-comic analyses, the presence of multiple reference worlds provides no conflict and thus does not lead to any unworlding. However, unworlding does occur when the first two panels are contrasted with the real world of the final panel. Here it is important to note the situational realism presented in the comic, despite the highly stylized representation of characters and settings. This situational realism is provided in both settings – by quests and quest givers that actually exist in the game in the first two panels, and by a generically typical setting of a teenager or young adult unwilling to take out the trash in the final panel. This comic represents a clear example of lateral (un)worlding, as the reference world of the first two panels (the in-game harmony of player and game that generates industrious behavior) is placed hierarchically dominant (both in order of presentation and space dedicated in number of panels) to the reference world of the player and the real world conflict it contains.

⁸ This title is provided by the author of this article and not by the comic creator. The original comic has no title.

⁹ The quests and quest givers in the comic's first two panels closely resemble actual quests and quest givers from the game.

¹⁰ Note here that in the third panel the presence of a quest giver (in the form of life-like characters) has been replaced by the back of a computer screen, underlying the artificiality of the player's relationships to in-game characters as well as the productivity of her in-game work.

However, this hierarchy of worlding is called into question for several reasons. First, the highly motivated behavior of the player in-game (represented through the player's avatar) is contrasted to the unmotivated behavior of the actual player. While the in-game player is willing to take on tasks from virtual people (non-playing characters, i.e. quest givers) and for virtual rewards, that same player in an out-of-game context is unwilling to take on tasks from real people with real rewards (even if that reward is simply maintaining social relationships of reciprocal support) and real consequences (i.e. maintaining an orderly and hygienic household). The second reason that the hierarchy of worlding is called into question is that the "real life" (with its conflicts, relationships, tasks etc.) that is presented in the final panel was and always is prior to "game life", despite its reverse presentation in the comic. The reverse ordering within the comic, including the abrupt interruption it causes, provides a stark reminder of this priority.

"*Do it yourself*" presents a conflict through contrasting typical in-game with out-of-game behavior; it also denies any explicit resolution to that conflict. It provides neither further comic-panels nor narratorial commentary that would frame this behavioral contrast within a larger story or ethical framework. This lack of framing can serve the cognitive function of problem-raising, such as in the case of the first example, *Adventures in Herbalism*. However, this comic does not raise problems concerning the game system but rather player behavior. Moreover, this problem does not necessarily concern the behavior of a particular individual player. Instead, it addresses general motivational issues surrounding gameplay and real-life interactions. From a player perspective, one could say that the problem lies in the fact that many individuals are more motivated to work in games for fictional rewards than they are motivated to work in real-life. From a systemic perspective, on the other hand, one could say that the problem lies in real-life systems (familial and social systems, economic, political, etc.) and their inability to motivate and maintain engagement to the extent and intensity that digital games can. The cognitive function of raising problems is paired with the social function by placing the comic's problem within a general discourse on player motivation and real life consequences. Furthermore, the comic's presence in an online community encourages readers to participate in a discourse on games and how they affect real life behavior and real life systems.

Conclusion

This article approaches narrative sense-making as crucial for not only processing gameplay experience but also for communicating those experiences within online communities of gameplay practice. The examples and their accompanying analyses demonstrate that digital fan-comics implement the affordances of both graphic and verbal/written language to deliver complex situations, perspectives and indeed conflicts in a relatively modest amount of space. However, decoding these stories remains a large challenge for those without considerable game experience, and is sometimes even impossible for those not familiar with WoW and the online culture that surrounds it.

In addressing the three examples in this article, I illustrate how WoW fan-comics address three levels of game discourse, focusing on the game as a system, on the interaction between the player and the game, and finally on the game (including player interaction) and how it influences the rest of the world. Furthermore, I demonstrate how WoW fan-comics participate in the more serious work of raising problems, like the systemic conflicts between ludic and narrative-immersive elements of the game, or like the behavioral inconsistencies between in-game enthusiasm towards "work" and out-of-game apathy. Fan-comics are not limited to

raising problems, however, as the second example presents an act of world-building, or place-making, as a creative-productive interaction with specific elements of the game. These types of sense-making activities offer insight into general themes that video game fan-comics address, and also illuminate how game players make (or attempt to make) narrative sense out of game experiences.

This approach to discussing fan-comics and narrative sense-making raises further aspects for future research on the topics. First of all it is necessary to distinguish in-the-moment from after-the-fact sense-making. The fan-comics presented here often present stories as if they are in-the-moment, even though they are highly constructed (i.e. narrated). Future research can focus on differentiating which sense-making processes are narratively scaffolded during gameplay and which ones afterwards in acts of reflective processing. A further point of future research is to include a broader range of fan-narrative forms other than just digital fan-comics, and from a broader range of digital games. This is necessary in order to determine which types of sense-making processes are specific to WoW and which are applicable to digital games in general. Furthermore, strategies of digital comic-representation, of focalization as well as of conflict embedding may vary due to the specificities of various games as well as to the narrative affordances and aspects they offer, which will likely influence the way in which storytellers present and viewers interpret the conflicts and themes of their narrated experiences. Finally, further research is needed on the role that digital fan-comics (and the functions they perform) play for online communities and whether, and in what ways, they influence the discourse and gameplay of their viewers.

References

- Blizzard Entertainment (2004) *World of Warcraft*, PC, Irvine, California: Blizzard Entertainment
- Blizzard Entertainment (2007) *World of Warcraft: The Burning Crusade*, PC, Irvine, California: Blizzard Entertainment
- Blumer, H. (1969) *Symbolic Interactionism*, Englewood Cliffs, NJ: Prentice-Hall.
- Bruner, J. (2003) *Making Stories: Law, Literature, Life*, New York: Farrar, Straus and Giroux.
- Bruner, J. (2004) 'Life as Narrative', *Social Research*, (71)3, 691-710
- Calleja, G. (2011) *In-Game*, Cambridge: The MIT Press.
- Gee, J. P. (2012) 'Nurturing Affinity Spaces and Game-Based Learning', in C. Steinkuehler, K. Squire and S. Barab (eds), *Games, Learning, and Society: Learning and Meaning in the Digital Age*, Cambridge: Cambridge University Press, pp. 129-153
- Gottschall, J. (2012) *The Storytelling Animal: How Stories Make Us Human*, New York/Boston: Houghton Mifflin Harcourt.
- Hague, I. (2014) 'A Defining Problem', in S. Packard (ed), *Comics & Politik*. 7. *Wissenschaftstagung der Gesellschaft für Comicforschung (ComFor)*, Berlin: Ch. A. Bachmann Verlag, pp. 73-88
- Herman, D. (2013), *Storytelling and the Sciences of Mind*, Cambridge, MA: The MIT Press.
- Jenkins, H. (2004), 'Game Design as Narrative Architecture', in N. Harrigan (ed), *First Person: New Media as Story, Performance, and Game*, Cambridge, MA: The MIT Press, pp. 118-130
- Juul, J. (2003) 'The Game, the Player, the World: Looking for a Heart of Gameness.' *Level Up: Digital Games Research Conference Proceedings*, (pp. 30-45). Utrecht: Utrecht University.

- Khronuslight (Username) (2010) *What bosses do after The Burning Crusade*, [online]. Available at <http://eu.battle.net/wow/en/media/comics/?view=comic-2007-04-khronuslight>. Accessed 12 November 2014.
- Lammers, J. (2012) "'Is the Hangout... The Hangout?'" Exploring Tensions in an Online Gaming-Related Fan Site', in E. Duncan (ed), *Learning in Video Game Affinity Spaces*, New York: Peter Lang Publishing pp. 23-50
- Magnifico, A. (2012) 'The Game of Neopian Writing', in E. Hayes and S. Duncan (eds), *Learning in Video Game Affinity Spaces*, New York: Peter Lang Publishing, pp. 212-234
- McCloud, S. (1993) *Understanding Comics: The Invisible Art*, New York: HarperCollins.
- Nyklia (Username) (2010) "*Do it yourself*", [online]. Available at <http://eu.battle.net/wow/en/media/comics/?view=comic-2006-08-nyklia>. Accessed 12 November 2014.
- Ryan, M. (2010) 'Fiction, Cognition and Non-Verbal Media', in M. Ryan (ed), *Intermediality and Storytelling*, Berlin: De Gruyter. pp. 8-26
- Volvulus (Username) (2011) *Adventures in Herbalism*, [online]. Available at <http://eu.battle.net/wow/en/media/comics/?view=comic-2008-09-volvulus>. Accessed 12 November 2014.

Roger Dale Jones is a lecturer and doctoral student at the Justus Liebig University of Giessen in Germany. He researches digital games, game narratives (especially in comic form) and cognition, and is particularly interested in how digital games and gamer culture can be integrated into the English as a Foreign Language classroom.

E-mail: Roger.D.Jones@anglistik.uni-giessen.de