The Implied Designer and the Experience of Gameworlds

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ABSTRACT
As artefacts, gameworlds are designed and developed to fulfil certain functional and creative objectives. Players infer these purposes and aspirations from various aspects of their engagement with games. Based on their socio-cultural background, their sensitivities, gameplay preferences, and game literacy, they construct a subjective interpretation of the intentions of the creators of the game. In analogy to Wayne C. Booth's notion of the implied author, we will call the figure to which players ascribe those intentions 'the implied designer'. In this paper, we introduce the notion of the implied (game) designer and present an initial account of the way players ascribe meaning to gameworlds and act within them based on what they perceive to be the intentions of the designer of the game.

Keywords
Implied Designer, Implied Author, Implied Player, Game Hermeneutics, Transgressive Design, Literary Theory, Metaludic Knowledge.

MEANING AND INTENT IN FICTION
Works of fiction are artefacts: they are conceived and created to be interpreted and understood in specific ways. The fact that works of fiction such as novels have authors is not a trivial observation when trying to understand how appreciators interpret the meaning of the works in question. In the field of artefact studies, the purpose of artefacts is largely understood as being determined by their intended function (see Millikan 1999; McLaughlin 2001; Thomasson 2007; Evnine 2016). As artefacts, works of fiction are also interpreted on the basis of what is their perceived, intended function. Being conscious of the artefactual nature of fictional works, appreciators tend to infer the meaning of these works from what they believe the creators of these works intended to communicate (Currie 1990, 30-31). Their assumptions about the creator's intentions are central not only in determining their interpretations of a certain work, but also of the world presented within it, and their expectations toward it:

> We may think of a narrative as a door-way into the world of its story. But we are never far from conscious awareness of the narrative's artefactual status, where facts about the motives of its maker, and the constraints on the maker's situation, inform our expectations of the story's events (Currie 2010, xvii-xviii).

Kathleen Stock goes so far as to claim that the "fictional content of a text is determined by certain of the intentions with which the text is written" (Stock 2017, 16). Every little detail in fiction might gain significance because appreciators believe it to be described for a reason. Vice versa, everything that is not perceived as intentional by its creator

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(typos, mistakes, contradictions, editorial flaws, etc.) is likely to be ignored by readers precisely because of it being perceived as unintentional (Walton 1990, 183; Currie 1990, 87; Matravers 2014, 131).

This does not mean, however, that one must be aware of the intentions of the creator of a work of fiction to be able to understand it. After all, one is perfectly capable of making sense of – say – a novel or a film by simply interpreting the characteristics of the work itself. Besides, fiction appreciators are not always in the position to be certain about the intentions of the creator, and can derive meaning from the work while being ignorant (or even completely mistaken) about the author's intentions. Lastly, stating that the intentions of the actual author are crucial when interpreting the meaning of a work would be an instance of the 'intentional fallacy' (Wimsatt and Beardsley 1946), as it ignores the ways in which readers independently 'make meaning' during their reading, and how free they are in the interpretation of the work.

How to reconcile the claim that readers cannot, and do not have to, know the intentions of the actual author, with the fact that they are clearly guided by what they perceive to be the author's intentions when interpreting of a work of fiction? Within narratology, the concept of the implied author has been used to reconcile those two divergent perspectives. Wayne C. Booth introduced the implied author as follows:

> As he writes, [the actual author] creates not simply an ideal, impersonal "man in general" but an implied version of "himself" that is different from the implied authors we meet in other men's works. […] Whether we call this implied author an "official scribe", or adopt the term recently revived by Kathleen Tillotson—the author's "second self"—it is clear that the picture the reader gets of this presence is one of the author's most important effects. However impersonal he may try to be, his reader will inevitably construct a picture of the official scribe (Booth 1961, 70-71).

We want to emphasize, here, that the implied author is not determined by the actual author and his intentions. Rather, it is an idea that is dynamically constructed by readers during their engagement with the author's work:

> The concept of implied author refers to the author-image evoked by a work and constituted by the stylistic, ideological, and aesthetic properties for which indexical signs can be found in the text. Thus, the implied author has an objective and a subjective side: it is grounded in the indexes of the text, but these indexes are perceived and evaluated differently by each individual reader. We have the implied author in mind when we say that each and every cultural product contains an image of its maker (Schmid 2009, 161).

Readers construct an implied author on the basis of their interpretation of a text. At the same time, they infer the meaning of the text from the intentions that they believe this implied author to have [1]. In this sense, we can understand Seymour Chatman's preference for the term 'inferred author' when referring to that figure (Chatman 1990, 77). On these premises, we argue that the meaning of a text depends on the intentions that the reader believes to lie at the basis of the work's creation.

To be sure, we do not intend to claim that the effective intentions of the actual author are necessarily relevant in that process. In fact, the notion of the implied author is generally used to support the idea that the meaning of a work is the result of authorial intent, but that knowledge about the actual author's intentions is not necessary to interpret the piece in question (Ryan 2011, 30). The relevance of the concept of the

implied author as the perceived creator of a work becomes apparent when we consider the way readers' assumptions about this creator influence their interpretation of a certain work (Schmid 2009, 168). As Nelles writes: "the implied author's implicit intentions, not those expressed by the historical author or narrator, are the definitive source of meaning in a work" (Nelles 1993, 22). Although readers do not have to – and often cannot – know the intentions of the actual author, they inevitably interpret and construct the meaning of a work on the basis of the fact that it was intentionally written by someone. They ascribe special meaning to objects, spaces, and events described in novels based on their perception of these elements as deliberate creations.

Note that, although we have been talking about a singular implied author connected to any kind of work, collaborative works of fiction such as movies or digital games are better understood as the product of distributed authorship (see Gualeni et al. 2019). Yet, we follow Currie in arguing that it is unproblematic to posit one implied creator even in such cases [2]. Like Currie, we understand the notion of the implied author as not referring to an actual person, but rather to be the sum of the creative intentions that the reader perceives to lie at the basis of a work.

GAMEWORLDS AND THE IMPLIED DESIGNER

In this section of our paper, we will adapt and extend the notion of the implied author to the experience of digital games. In analogy with how the implied author was discussed above, we define the 'implied designer' as follows:

> The implied (game) designer is the conceptualization of a designer that the player constructs on the basis of their dynamic interpretation of the game (understood widely, together with its paraludic elements, including marketing material). To this inferred figure, the player ascribes all those intentions that they think lie at the basis of the creation of the game in question.

Over and above the already-discussed benefits of invoking the implied author to describe and explain appreciators' interpretative efforts, the notion of the implied (game) designer can also be useful in explaining their behaviors. In digital games, the implied designer not only guides the interpretation of the presented gameworlds [3], but also the ways in which players position themselves (and orient their goals) within those worlds. This means that the intentions that the player infers to be the creative force behind a gameworld contribute to determining the way they interactively traverse that world and give meaning to their own existence within it.

Within digital game studies, the implied author and designer intentions have been discussed before. Aarseth's (2011) and Leino's (2012) respective understandings of the implied or ideal game as an idea that is constructed and refined by players of a digital game have a degree of similarity with our understanding of the implied (game) designer. Aarseth describes the implied game objects as follows:

> An implied game object does not exist, but is imagined by the player as what the game *is*, or ought to be. A game riddled with software bugs, for example, is perceived as merely the flawed, actual version of an uncompleted, implied game. We conceptualize the *real* game as being without the annoying bugs, and the present version as a premature, unwanted stand-in version for the real (implied) thing. (Aarseth 2011, 66)

At first sight, this notion of the implied game object seems to be closely related to the notion of the implied (game) designer that we propose in this paper, as Aarseth defines the game object as based on an inference of what is was intended to be like. He introduces the notion of the implied game object in his endeavor to form a useful game ontology. With that purpose in mind, Aarseth does not (nor does he want to) account for the way players behave in the gameworld or for the ways in which players actually interpret the game as they play. Instead, he emphasizes the differences between the implied game object and the actual game object, or "the object the player actually encounters" (Aarseth 2011, 66).

Similarly separating the 'ideal game' from the game as actually encountered in play, Leino argues that the ideal game is an irrelevant notion for the field of game studies. "Unless I am doing game design research," he writes, "my object of study is not the 'ideal game': i.e. the assumed designer's assumed intentions fallibly manifested in the playable artifact, but the playable artifact as it exists in the world" (Leino 2012). Unlike both Aarseth and Leino, we argue that the ideal or implied game is not separable from players' actual experiences of games. Their notion of the implied or ideal game (the game that players dynamically piece together based on the intentions they assume the designer of the game to have) is, instead, a prerequisite both for the actual playing of the game and for understanding the game as it is played.

The idea that designers' intentions influence or even determine a player experience with a game is, often implicitly, present in academic works in the field of game studies. Game scholars have discussed the role of designers' intentions in gameplay with regard to, for example, the idea that there is a prescribed or right way of playing games (Deriglazov 2018; Nguyen 2019), or that there is an implied role for the player to take on (Tanenbaum 2013; Aarseth 2014), or that virtual worlds present a blueprint for the player's existence within this world (Leino 2012), or even that playing games brings with it the inherent possibility of going against the designer's intentions (Aarseth 2004, 2014; Leino 2012; Back et al. 2019). Within these works, however, the notion of the implied (game) designer is not specifically analyzed, and never becomes the focus of scholarly inquiry.

This does not mean that the notion of the implied designer is without tradition within game studies. Thon, for example, defines the implied game designer as a particular ideological perspective that "manifests itself in the overall design and presentation of a game world as well as in the rules and goals of the game" (Thon 2009, 296-297). Thon uses the notion of the implied game designer with explicit regard to the (im)morality of game content, referring to it as a "reconstruction of the system of norms and values inherent in computer games" (ibid., 297). In this endeavor, he commits to Booth's understanding of the implied author as a theoretical construct that was originally meant to protect actual authors from moral condemnation. More specifically, the implied author was taken as the source of the ideological perspective of a text, making it possible to criticize that text for being immoral or unreliable without blaming its actual author and vice versa (cf. Bal 1981, 42). Neither the immorality of game content (Thon 2009) nor the unreliability of game narration (cf. Roe & Mitchell 2019) are, however, the focus in this paper. Instead, we will frame the implied (game) designer as an explanatory concept that clarifies the ways in which a player interprets a gameworld and acts within it.

Klevjer (2002) also briefly refers to the concept of the implied designer. Relying on Booth's interpretation of the implied author, he writes:

> In a computer game, there is also an implied author speaking, creating the diegetic world through general descriptions, through simulations, and

> through the pre-written events. The 'implied designer' may occasionally reveal signs of individuality, but as a general rule, he takes the form of a familiar, generic voice. (Klevjer 2002, 196)

Klevjer mentions the implied designer with specific regard to game narrative. He notes how the implied designer of a game authors a narrative framework in which players can act, but does not elaborate on the differences between an implied author and an implied designer, or on how players construct the implied designer.

In conclusion, to this date game scholars have referred to the concept of the implied designer implicitly or passingly, either without offering a precise definition of the concept, or without clarifying how it is constructed by each player and how this inferential process influences the experience of digital gameworlds (see also Kücklich 2001; Kirkland 2009; Wolf 2012, 191; Leino 2016; Äyrämö 2017). In the following sections of this paper, we will show how the notion of the implied (game) designer is useful in describing and explaining how the assumed designer's intentions are a central factor in guiding players' interpretations of gameworlds and their active roles within these worlds.

A Hermeneutically Inspired Approach

In this paper, we take a hermeneutically inspired view of implied authorship, meaning that the implied designer of a digital game is defined as being constructed in a dynamic relationship between the experience of a gameworld and the socio-cultural background, preferences, sensitivities, and game literacy of the player doing the constructing. We thus diverge from Currie's interpretation of the implied author as "an agent with intentions corresponding to the implicatures it is reasonable for readers to attribute to the author given relevant background knowledge" (Currie in Maes 2017, 214). Currie understands the implied author as the ground from which the meaning of a text emerges, a ground that can be derived from the text by every hypothetical reader who possesses the relevant background knowledge (i.e. about the genre of the text, its subject, situatedness in history, etc.) (Currie 1990, 100). Unlike Currie, we believe the implied creator of a work not to be fully determined by this work itself, but to depend on the individual who appreciates and interprets this work.

Therefore, our approach to the implied designer does not only consider the qualities of a game on which the individual construction of an implied designer is based, but also the background knowledge, the sensitivities, the gameplay preferences, and the socio-cultural context of the player doing the constructing. As such, our approach to the implied (game) designer is inspired by a larger, real-time hermeneutic approach to digital games (see Aarseth 2001; Arjoranta 2011, 2015). As Arjoranta writes:

> Games do not present or convey certain meanings or values simply because they are games, although the structures of the media affect the ways those meanings or values can be transmitted. Games embody the values and choices of the people that made them, the culture that surrounds them and the prejudgments of the people playing them. (Arjoranta 2015, 84)

Although the designers of course influence what a game can mean, they are not the sole authority on this matter (Arjoranta 2015, 85). Taking the player-constructed implied (game) designer as being responsible for a game's meaning is compatible with the hermeneutical idea that the meaning of artworks flows forth out of the interplay between the artwork, its interpreter, and their context (Gadamer 2004, 115, 157). After all, the implied designer is constructed by a player based on their dynamic interpretation

of the gameworld, an interpretation that is rooted in the player's own social context, cultural background, game literacy, and individual sensitivities and preferences.

It is important to note that, contrary to a fully hermeneutical approach, we do not want to make any normative claims about there being 'correct' (or intersubjectively agreed on) ways to interpret games. Very often, reflections on how games imply the intentions of their creators have generated arguments about the 'right ways' to interpret and play games. C. Thi Nguyen, for example, writes that games have 'prescriptive ontologies': they are works that are "partially constituted by prescriptions about how they are to be encountered" (Nguyen 2019). He argues that a game is fixed by its creator, who presents their work to the public in a way that makes it clear under which conditions the work in question can be encountered, for example by offering them a game manual (2019). According to Nguyen, people can still play in whatever way they want, but whenever they do not follow the creator's prescriptions, they are simply not playing the 'actual game'. Frameworks like these can be useful in determining what could be considered the 'official' version – or the canonical interpretation – of a game. They are, however, ineffective in relation to investigating the actual player's experience of a certain gameworld and their behavior within it. Similar to how readers can produce a variety of interpretations of the same text, players can infer diverging intentions of the designer while playing a game.

Therefore, our goals in this paper are descriptive rather than normative, and our description and analysis of the implied game designer is based on the experiences and interpretations of individual players. An important advantage of this hermeneutically inspired – but merely descriptive – approach to the implied designer is that it can account for cases of divergent player behavior. It does so by showing how the inferred intentions of the implied game designer can, and often do, vary among players with different backgrounds, and even differ from the intentions game designers wanted players to infer. A digital game might make it hard for the player to infer what the designer intended when adding certain objects or areas to the gameworld. This can be a consequence of the game failing to make its intended uses clear to players who are missing the relevant knowledge or the needed game literacy. It might also be the result of a gameworld being deliberately vague or even misleading concerning the objectives for which it was created, thus creating a sense of mystery or even elicit a sense of the sublime (see Vella 2015). Due to such difficulties in inferring the intention behind certain objects or events within gameworlds, there are several digital games that are hardly ever understood or fully explored by single players, thus resulting in a great variety of ways in which the game is interpreted and played.

Aside from its explanatory power when it comes to player behavior, and maybe exactly because of this power, our focus on players' individual interpretation and construction of the implied (game) designer can also be useful within game design. Reflecting on how players derive meaning from their game and its paraludic material, game designers can take the idea of the implied designer into account when designing towards a certain player experience. This knowledge is especially useful in the design of the so-called 'tutorial' sections and in the initial phases of a player's engagement with a game, where it is particularly important that the implied (game) designer is reliable and easily inferred, so as to give new players unambiguous information and a clear direction (see Gualeni & Vella 2020, 58-59). Additionally, being able to understand and anticipate how players infer implied designers' intentions, designers can creatively use this knowledge to make their games surprising, annoying, and even potentially more engaging. The projection of false intentions within the game (for example leading to red herrings), the comically overt expression of designer intentions (which metafictionally reveal the game's artefactual status), and the vague hinting at mysterious meanings (inviting the player to further explore the gameworld) are only

some examples of how designers can subvert and toy with the player's construction of implied designer.

Constructing the Implied Designer

Having clarified the hermeneutical influence to our approach, we can now discuss in detail what role player interpretations have in the construction of the implied (game) designer. We invite the reader to recall, for this purpose, that the idea of the implied author within narratology is dependent both on the qualities of the authored artefact and on the personal interpretation of the reader:

> On the one hand, it has an objective component: the implied author is seen as a hypostasis of the work's structure. On the other hand, it has a subjective component relating to reception: the implied author is seen as a product of the reader's meaning-making activity. […] At any rate, it must be remembered that, like the readings of different recipients, the various interpretations of a single reader are each associated with a different implied author. Each single reading reconstructs its author. (Schmid 2009, 162)

In analogy with Schmid, we argue that in each play session, a specific implied (game) designer is constructed by the player. This inference is based on their interpretive experience of the gameworld in its various elements and qualities. These elements and qualities are taken as primary indications of the intentions that the player attributes to the game designer. Some of these intentions can be explicitly presented in the game: think of non-player characters explaining to the player how to use the controller, or pop-up text boxes informing the player about what to do and where to go. Others can be more subtly embedded into the gameworld: a path of blood spatters on a floor can give hints to the player as what might have happened in a room and a clue as to where to go next. Similarly, enemies that are too hard might suggest to players that they should level up in other areas first, and the way the game rewards players (in the form of currency or experience points) is an unequivocal indication that whatever they did was desirable and might be worthy of repetition. All these ludic elements can be interpreted as clues of how to understand the gameworld and behave within it precisely because players perceive them as purposefully designed: the intentions of the designer are implied in these aspects of gameplay, and guide players through the designed environment.

The way elements and qualities of gameworlds are pieced together to infer the intentions of the designer is, however, dependent on how each individual player encounters and interprets them. The player's own socio-cultural context, preferences, sensitivities, and background knowledge (especially about game conventions), play a crucial role in this interpretation process. As many of these factors are highly subjective and vary greatly from player to player, we will focus on how player's ludic knowledge influences the way they construct the implied (game) designer. In this pursuit, we will make use of Peter Howell's distinction between 'transludic' and 'interludic' knowledge (see Howell 2016).

According to Howell, a player's transludic knowledge is knowledge relating "to multiple other games that an individual may have played in the past" (Howell 2016, 1). A player's transludic knowledge is a component of their overall game literacy and, consequently, is part of what influences how they will infer an implied (game) designer. The importance of game literacy in the construction of the implied designer is especially conspicuous in situations in which players are not familiar enough with game conventions to usefully infer designer intentions from their play experience. This is, for

example, the case in some of the videos on the *REACT* Youtube channel, which shows elderly citizens playing games such as the intro to *The Last of Us* (Naughty Dog 2013). When the cutscenes stop and the camera switches to a third-person view from behind the back of the playable character, these players do not realize that they should start moving. One of the elderly men even criticizes the fact that the character is not doing anything, despite just having been asked to look for her dad (REACT 2015b, 3:05). Due to their lack of the necessary game literacy, the elderly people in the video simply could not infer that both the camera change and the explicit request to look for the character's dad are actually indications of what the (implied) designer wants the player to do. Instead, they have to be explicitly told to start using the controller by the film-shooting crew (REACT 2015b, 3:11). Something similar happens when these same people are made to play *Grand Theft Auto V* (Rockstar North 2013). Many of them start driving a car in-game, very carefully trying not to bump into anyone and stopping in front of every red light. When asked why she brakes so brusquely, one of the women exclaims that there was a stop sign (REACT 2015a, 2:51). She saw a stop sign in the game and inferred from this that she was supposed to stop. Due to their very limited literacy in digital games and relative conventions, these elderly players construct an implied (game) designer that significantly diverges from the implied (game) designer that a more game-literate player would piece together.

Another element that might be important when constructing the implied (game) designer and, by extension, inferring the meaning of gameworlds, is the player's interludic knowledge. Howell describes interludic knowledge as a specific type of transludic knowledge, which is "contextualised within a specific game series or franchise, or applicable to a small subset of games rather than many different games" (Howell 2016, 2). Interludic knowledge can be knowledge about other gameworlds created by the same designer, or knowledge relating to a specific genre of digital games (such as walking simulators, sandbox games, first person shooters, etc.). In the earliest discussion of the implied author, Booth already considered the fact that the implied authors of different works by the same author would be similar. Elaborating on Booth's position, Schmid writes:

> The implied authors of various works by a single concrete author display certain common features and thereby constitute what we might call an œuvre author, a stereotype that Booth (1979, 270) refers to as a 'career author.' There are also more general author stereotypes that re-late not to an œuvre but to literary schools, stylistic currents, periods, and genres. (Schmid 2009, 167)

Applying this idea to digital games, we can say that the way players give meaning to a game might be influenced by their constructing an implied 'oeuvre designer'. Players who are already familiar with the *Dark Souls* (2011) games and their conventions might recognize many game elements in the game *Sekiro* (2019), since these games were created by the same company, FromSoftware. As such, they might make assumptions about the digital gameworld of *Sekiro* that are based on what they know about the *Dark Souls* series (2011-2016). Moreover, as Schmid already suggests, players can also base their inferences on their knowledge of genre conventions that are specific to digital games. Games that are advertised as horror games, for example, will be approached on the premise that the implied designer of the game has the goal to scare players. A game which famously toys with the way players infer meaning based on genre conventions is *Gone Home* (Gaynor 2013). This game seems to position itself within the horror genre, as it is set in a deserted family house during a nightly storm on the door of which a note is placed which begs the player-character not to go digging around to find out what happened. *Gone Home* does not ultimately present its players with a horror story, but rather with a coming-of-age queer love story, thus subverting player expectations.

A type of knowledge about digital games that Howell does not mention or consider in his paper is metaludic knowledge. This is knowledge about a game that can be gleaned outside of its gameworld: information derived from paraludic material such as game trailers, the game's box-art and manual, walkthroughs, and even from sources that are not directly related to one's experience of the game, such as FAQ websites, let's play videos, reviews, interviews with the actual designers, and so on. Although not necessary for the inference of the implied designer, metaludic knowledge can have a profound influence on it. Players who had already read other people's reactions to *Gone Home*, for example, constructed the implied (game) designer as not intending to scare them, but merely intending to make them think they would be scared by the game, thus influencing the way they approached and interpreted the game.

In conclusion, the implied (game) designer is a construct that emerges from the interpretative and interactive interplay between the characteristics of a game and the contextual qualities of the players of that game, which notably include their level of skill, their game literacy, their ethnicity and cultural background, and their familiarity with that specific genre and franchise. On the one hand, then, it is reasonable to believe that well-informed players will infer very similar implied designers from the same game. On the other, it is safe to assume that the implied designer constructed by different players of the same game will differ (albeit slightly), and so will the implied designer that is constructed by the same player over the course of subsequent playthroughs.

The Implied Designer and the Experience of Digital Gameworlds

Up until this point, we have discussed how players construct an implied designer. In this part, we will discuss how this construction influences our experiences of (and within) the worlds of digital games. After all, the player's awareness of the artefactual nature of digital games determines their interpretation of gameworlds and their behaviors within them. The construction of the implied designer is a precondition to the very appreciation of digital gameworlds: the way in which players play a game is based on their recognition that the gameworld is designed with specific goals, affordances, and prescriptions for certain kinds of imaginings. Players' interpretation of the events that take place in a gameworld and of their own position within it necessarily depend on their construction of the implied (game) designer's intentions.

To begin with, whenever players enter a gameworld, their virtual existence is already meaningful insofar as they perceive it as being offered to them for a reason. The gameworld presents a framework that is formed by the affordances disclosed to players, by the goals that they can accomplish, by existential threats within the gameworld, and by whatever else players can perceive as intentionally crafted by the implied designer. In line with this perspective, the gameworld itself and every object or event within it is recognized as having a special meaning because the player understands these objects and characteristics to be placed there intentionally by the implied designer. In this aspect, digital games are similar to any other work of fiction. Just like when reading a novel, it is always reasonable to ask of any object or event within the world presented in a work why the designer intended them to be there, and to give meaning to the object or event based on these reasons. However, the difference between novels and digital games in this regard is that players' awareness of the artefactual nature of objects and happenings in digital games not only determines the way these objects and happenings are interpreted by players, but also how the player will behave towards them and integrate them within their own Being-in-the-gameworld (see Gualeni & Vella 2020).

Players' consciousness of the fact that gameworlds are intentionally designed also tends to mean that their behavior is easily guided by seemingly banal characteristics of gameworlds. Things that would be absurd to take as being especially meaningful or as a justified object of further attention in one's actual life, are often taken as important guidelines within digital gameworlds. The specific growth of plants, the way sunlight is reflected on certain parts of the environment, or the direction of the wind, can all become meaningful clues to players who need to make decisions on what to do, and who perceive these elements as deliberate constructs placed within the gameworld by the designer. Examples of these kinds of ludic inferences abound. In *The Legend of Zelda: The Wind Waker* (Nintendo EAD 2002), for example, the player must make their way through a maze consisting of countless rooms, each of which features four doors leading to other rooms and is inhabited by a single, sword-wielding enemy (i.e. Phantom Ganon). To make it through this maze, the player must defeat Phantom Ganon each time they enter a new room and subsequently enter the door to which the hilt of Phantom Ganon's sword points after the player defeats him (see Figure 1). Although this course of action would be arbitrary and quite nonsensical in actual life, in the game it makes sense to choose a door based on the direction of the fallen sword. This choice is supported by how the game situation is set up: not only are the rooms of the maze completely empty and the doors perfectly similar, thus making the sword one of the few elements the player can base their decision on, but upon defeating Phantom Ganon, the sword also visibly plummets to the ground, balances on its tip, and emphatically falls in a specific direction. The player who perceives this movement of the sword is not likely, as discussed before, to perceive it as a mere event, but will rather interpret it as a definite consequence of the implied designer's intentions [4]. As such, it not only makes sense to ascribe more meaning to the position of the sword than would be reasonable in a non-designed situation, but many players will also do this quite instinctively.

Figure 1: The hilt of the sword of a defeated Phantom Ganon indicates the door the player is supposed to go through (the screenshot was taken from the 2013 high-definition remaster of the game)

Another interesting example of such inference processes carried out by game-literate players consists in expecting a challenging section or a particularly dangerous encounter in the gameworld (i.e. a bossfight) upon approaching a wide arena-like area, or an abnormally large stash of health or weapon items within the gameworld. The

same intuition can be stimulated by the digital game suddenly performing an 'autosave' (i.e. creating an automatic checkpoint from where the players can restart their game upon a 'game over').

Note that players are equally guided by the intentions that they attribute to the implied designer when playing digital games that do not overtly offer quests or tasks to fulfill, or that do not have an explicit game narrative. Sandbox games, for example, are typically developed with the intention to grant players a wider range of action possibilities than narratively-bound games do, and to make players choose their own goals instead of prescribing them to embark on specific quests. Yet, that does not mean that players' experiences of these games are independent from the influence of an implied (game) designer. Quite to the contrary, players approach sandbox games in explorative, experimental, and creative ways precisely because they know that this is what the implied designer intended for them to do. In general, players ascribe a certain value and meaning to the objects and characters they discover in a game based on what they think the intention of the designer was when designing these objects in the game, regardless of the game being narrative, quest-driven, open-world, single-player, or multiplayer. The presence of an HP bar in any of those games, for example, indicates that the implied designer intended player-characters to be vulnerable to environmental hazards, or the attacks of enemies or other players. The lack of an HP bar in a game like *Journey* (Thatgamecompany 2012), on the other hand, indicates to players that the game is likely designed for cooperative rather than competitive play. A vast body of water or a steep mountain range will likely signal to players that this is where the designer wanted to mark the boundary of an otherwise open gameworld, and that there is probably nothing interesting to explore beyond these limits. Moreover, the discovery of certain items or tools, such as the pickaxe in *Minecraft* (Mojang 2011), already frames or hints at possible actions for the player to undertake, such as mining.

Lastly, the way players deal with hostile creatures, environmental obstacles, and puzzles and problems that they encounter within gameworlds are also influenced by their knowledge of these difficulties being intentionally created for them to be encountered and overcome. This means that player behavior is often based on the conviction that given challenges can be surpassed and that the game can be won, no matter how hopeless a situation might seem. Perceiving every problem as an artificial problem, the fact that there is a problem likely implies that there is also a solution. If a player encounters a locked door in a gameworld, for example, they will likely assume that there is a key to be found somewhere in that same world. This connects to players' often-astounding tenacity when it comes to solving puzzles and in-game mysteries.

Players' awareness of the artificiality of a gameworld thus proves to be an influential factor when it comes to the way players relate to and behave in those worlds. It is because of the construction of an implied designer that players can find the experience of gameworlds meaningful. As designer intentions are implicitly present in the ways the gameworld appears and responds to the player, every element can be perceived as deliberately designed to be there, and thus as carrying special meaning and encouraging certain kinds of behavior. In the end, we can conclude that due to their awareness of the artefactual nature of gameworlds, players have a bias towards meaningfulness. The most banal elements and qualities of those worlds (as well as the player's presence within it) tend to be understood as relevant, purposeful, and important.

CONCLUSIONS

This paper introduced the concept of the implied (game) designer and its influence on how players experience and make sense of gameworlds. For this purpose, we further

developed and extended the notion of the implied author as it was articulated in narratology, and explored some of its theoretical advantages. The implied author is widely considered to be a useful notion to describe the way the artefactual nature of novels influences reader interpretation (without it being necessary for the reader to know anything about the intentions of the actual author). We, then, applied the notion of the implied author to the conceptualization and development of gameworlds, and labelled it the 'implied designer'. We defined the implied (game) designer in a way that is inspired by the tradition of hermeneutics, that is to say as the conceptualization of the designer that players construct largely based on their interactive experience and interpretation of the game (understood widely, together with its paraludic elements, including marketing material).

We argued that the concept of the implied (game) designer not only clarifies how gameworlds are interpreted, but also how players interactively and imaginatively engage with them. It is evident to us that the notion of the implied (game) designer can also be useful for game studies in a number of other ways that can be explored in more detail. Firstly, the concept can be used to reconcile the idea that fiction is that which is prescribed to be imagined with the fact that players are, to a degree, free to interpret and interact with the fictional worlds of videogames. The implied designer also helps us describe events that are perceived as anomalous within a gameworld, such as those caused by glitches, and clarify the way players deal with them based on the perceived (un)intentionality of these events.

Moreover, we already briefly noted how game designers could benefit from reflecting on the way their games allow for potential inferences of an implied designer. There are cases in which the implied (game) designer has to be easily and reliably inferred by players for the game to be playable or enjoyable. In other cases, game designers might decide to toy with the player's construction of the implied designer, potentially rendering their game more engaging and surprising by making it project false, vague, or confusing intentions. An example of this design strategy could be the purposeful use of red herrings (elements in a gameworld meant to mislead the players or to distract them from more significant tasks or activities).

Lastly, we believe that the notion of the implied (game) designer provides a fruitful theoretical basis for a new, explanatory useful definition of 'ludic unreliability' and 'transgressive design'. In a future follow-up to this work, we plan to define games as ludically unreliable when they imply designer intentions that diverge from the way they actually function. Moreover, we will describe design decisions as transgressive when they are intentionally unreliable in this way. Transgressively designed games deliberately deceive and misguide the player in their construction of the implied designer, and this deception itself is an expressive component of the design, that has the goal of adding emotional (and potentially critical) value to the player's experience of the game artefact.

In sum, what we are offering in this initial exploration of the notion is a perspective on the implied (game) designer as a defining trait of our experiences of gameworlds, as our awareness of the artificiality of these worlds precedes and determines how we approach and interpret them.

ENDNOTES

[1] The process of inferring the (intentions of the) implied author from a text is thus circular: the implied author is both a result of and a ground for the interpretation of a

text. Schleiermacher noted that this circularity defines interpretation in general. He explains that parts of something can only be understood in terms of the whole of which they are a part, and the whole can only be understood in terms of the parts that make it up (1998, 24). This idea is now known as the 'hermeneutic circle' (cfr. Dilthey 1996; Gadamer 2004). With regard to the interpretation process of texts, it is particularly interesting to observe that Umberto Eco connects the circular process of hermeneutic with the notion of the implied author. He argued that "[s]ince the intention of the text is basically to produce a model reader able to make conjectures about it, the initiative of the model reader consists in figuring out a model author that is not the empirical one and that, in the end, coincides with the intention of the text. Thus, more than a parameter to use in order to validate the interpretation, the text is an object that the interpretation builds up in the course of the circular effort of validating itself on the basis of what it makes up as its result. I am not ashamed to admit that I am so defining the old and still valid 'hermeneutic circle'" (Eco 1992, 64).

[2] In his 1990 book *The Nature of Fiction*, Currie clarifies that he will write about authors and their actions as if a work is always the product of a single author, even if that is not always strictly true: "[a]lthough it is not true, no great harm will be done by assuming that it is. For I take it that an act of joint authorship is exactly that: an act engaged in by more than one person rather than several distinct acts undertaken individually and patched together. This does not mean that every word must be the joint product of all the authors, merely that it should be understood between them that they are engaged in a common project and that each has, in engaging in it, the kind of intention I have called a fictive intention" (Currie 1990, 11-12).

[3] In this text, we adopt a broad understanding of what constitutes a world. This understanding is not strictly phenomenological, as it does not require a world to be experienced from within. However, our understanding of what a world is does retain qualities of the phenomenological approach, such as its implying an intelligible set of relations, possibilities, and limitations.

[4] Within action theory, philosophers tend to distinguish actions from mere events or happenings. In contrast to something that simply happens, action theory defines an 'action' as something an agent does intentionally (Davidson 2002, 46). In this sense, most things that happen in a digital gameworld are not mere events, but rather (expressions of) actions: they are intentionally planned by the designer of this world, and precisely because of that, they can be assumed to have a certain significance.

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