

Children's Narratives of their Digital Gameplay Experience

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Abstract

In this paper we focus on how children narrate their digital gameplay experience. We concentrate on two groups of children aged 7-9 in two different learning settings, a school workshop and an after school activity. Children worked on a selection of digital games. Data collected include observations, interviews and drawings of children's gameplay in order to reflect their experience and pinpoint important parameters of gaming activity and game design. Analysis is based on children's oral and visual narratives and explores how children's use of multiple narratives enters into a dialogue with the researchers. We argue that children develop a preference to specific characteristics of games like game content elements or gameplay elements, referring to emergence and progression game structures and reflecting to their narrative production.

Introduction

Digital gameplay has started as one-person activity. Specifically, the 'ping-pong' digital game was amongst the first attempts to create a game experience between the player and a technological device. This was followed by others, leading to the production of a variety of creative games and today there is a plethora of technically innovative platforms and a variety of digital game genres. However, new digital media go even further, by making possible the rendering of multiple associations between the player and his environment, the creation and sharing of virtual spaces being one of them (Salen 2008; Ryan 2012). This is the case of Massively Multiplayer Online Games and sandbox games. A major topic of interest related to digital games has to do with how children players experience gameplay. In order to explore this, Ryan (2003) and Steinkuehler (2004) concentrate on children's own narratives and pose questions such as: How do children narrate their experiences? How do we interpret their narratives and how such interpretations feedback our design efforts?

Focusing on children's narratives of their gameplay experiences, three core questions are explored in this study: 1) How do children talk about their experiences in gameplay? 2) What are the important issues that they focus on? 3) How do they express them in both verbal and visual modes? The context of the present research study provides specific examples taken from our research with two groups of children aged 7-9 in two different learning settings; a school-based workshop on digital games and an after-school family-based activity. Both groups worked on a number of digital game genres, including puzzle and adventure games. Data in this research phase include children's story-telling, as well as, their off-hand drawings of their own gameplay produced during the workshops. Such data reflect children's ways of participating in the

gameplay activity, of representing critical points of such activity as they tried to overcome any presented difficulties and of interacting with peers and game interface.

A first analysis of the collected data discusses how narrative expression is related to children preferences, which, in their turn opt for either of the two prominent game structures: emergence and progression. The paper consists of three sections. In the first section we attempt to trace narrative and interactivity in digital games and develop our reasoning on their use among children. Their social character is mentioned and narrative potential of games is brought forward. Game narrative is also viewed in relation to game design. The second section focuses on exploring collected children's narratives, leading to a double categorization of findings. The third section draws our conclusions and sets some open questions related to our subject.

Tracing narrative and interactivity in digital games

Following the “narrative turn”, narrative has been seen as a “tool of mind” assisting people to construct their reality (Bruner 1990). Being a considerable part in children's lives, it appears that digital games constitute an area rich in narrative activity. But how do we define narrative in digital games? Is it the “story” of the game, or is it the player's trajectory in the game space? Effectively, in digital games, the meanings of narrative can be twofold: It can be related to the story of the game, or it can be the narrative account of the gameplay process, focusing on players' experiences (Manovich 2001).

Digital gameplay is assisted by a series of technological tools and solutions that make it highly interactive. Aarseth (2012) claims that player's influence over the game story alludes to game interactivity in the sense of forming and responding to changing conditions. In this context Ryan (2001) distinguishes four strategic forms of interactivity that characterize different genres and narrative possibilities on the basis of internal – external and exploratory – ontological interactivity. Indeed, interactivity in games results in a high degree of flexibility for the player. Gameplay becomes personalized while the player adjusts the game settings to his preferences and even gets the chance to become a co-creator of the game (Jenkins 2006). However, apart from being an important element embedded within digital games, interactivity is also traced in players' online and offline social interactions, extending their gameplay further.

In digital games the narrative and the interactive element usually coexist (Juul 2002). Specifically, the identification of the narrative element in digital games is related to the central question of the ludology versus narratology debate on whether games should be studied in relation to narrative. Focusing on the significance of plot in digital games, ludologists' argument dealt with the idea that “a plot makes a story and rules make a game and they shall not meet” (Simons 2007) confronting a narratological analysis of games. The ludology versus narratology debate over, it was agreed that narrative is not the “raison d'être” of games, but forms a stimulant for players' imagination (Ryan 2001). Regarding it rather as a matter of coexistence, it was accepted that basic concepts of ludology could be used along with narratology (Frasca 2003).

In *Mind in Society* Vygotsky (1978) considered playing a game like entering an imaginary world where a child has to cope with his immediate impulses and follow certain rules. According to Vygotsky by acting in the game imaginary situations the child learns to control his behavior by finding a balance between immediate perception of objects and the meaning of the play situation. Vygotsky saw a cognitive developmental role in play, related not only to children's behavior during play, but also with language which, being a communication and cultural tool assists the child in understanding the external world. Narrative is connected to preschool children's play and can be traced in their "inner speech", while they are talking out loud to themselves (Wertsch 1991; Bakhtin 1984). Consequently, one could argue that apart from integrating the player in an imaginary world, narrative in play appears either as oral "inner speech" conversations, or the recounting of player's actions while following the game rules (Goffman 1959; Huizinga 1980).

The existence of rules is considered to be an equally important criterion in defining digital games (Salen & Zimmerman 2003; Juul 2003). What Vygotsky mentioned previously on play applies equally in digital games. According to Salen & Zimmerman (2003) in digital games players' subordination to rules and exercising their self-control assist them in constructing their play strategies. Moreover, by entering the game path, players assume new roles and relate their desires to a fictitious "I" reminding Vygotsky's idea (1978). This time, the new "I" can be a vivid digital character ready to create new narrative paths and meet "the others" existing in his physical or virtual environment. As a result, digital gameworlds can lead to the production and sharing of a plethora of narratives, based on players' game experiences (Ito 2009; Steinkuehler 2004; Poels et al. 2012).

Focusing on game design, Juul (2002) considered games and the experience of gameplay as a mixture of rules and fiction. For Juul fiction encapsulates the narrative world of the game, in the form of graphics, texts and other expressive resources. Juul admits that these two basic game constituents rarely match completely (2002). To this effect, games are regulated by emergence and progression structures that relate either to the interactive or the narrative aspects of the game (Salen & Zimmerman 2003; Juul 2002; Dormans 2011). Emergence is defined as "the primordial game structure where a game is specified as a small number of rules that combine and yield large numbers of game variations for which the player must design strategies to handle" (Juul 2002, p. 5). Consequently, emergence behavior is related to dynamic play and favors the players' interaction during gameplay (Salen & Zimmerman 2003; Dormans 2011). Progression is closely related to game content prepared in advance. "In progression game the player has to perform a predefined set of actions in order to complete the game" (Juul 2002, p. 5). According to progression structures player experience is dominated by the game space where narrative is significant. In this context the game designer has increasing control over the game content.

Exploring children's narratives

The project described in this article aims to gain insight in children's gameplay experiences through narrative expression. In particular, the ongoing research project with 22 children is implemented in two different learning settings: a school workshop and an after school activity. During the first phase of the project the two groups of children aged 6-9 worked on an initial list of fifteen puzzle and adventure games prepared by the researcher and extended gradually according to the children's suggestions.

The first session involved a semi-structured interview with each child, exploring introductory topics on child's experiences on digital games, laying emphasis on "how" the child narrates his or her experiences. The child was asked to describe a digital game he preferred. Then, the child was asked to pinpoint any difficulties he had encountered while playing digital games. Reporting to his previous experience with games, the child was asked to highlight game features he found appealing. Finally, the child was asked to mention any digital games he didn't like. The second session included a task allocated to each child, asking him to make a drawing in order to show how the game is played. The session also included observation and interview with the creator of the drawing, allowing him to describe or comment on his drawing. The third session focused on game challenges children were asked to recognize and suggest ways of coping with them during gameplay. The session included task allocation, observations and interviews with the children. The fourth session focused on interactivity issues during gameplay, comprising task allocation and children observation.

The methods used for data collection utilized series of interviewing, where children's play with specific digital games (as stimulated recall) and their drawings concerning their gameplay provided ways for accessing children's experiences. A case study that used ethnographic methods for collecting data is undertaken, focusing on children's oral and visual narratives of their experiences with digital games, involving the collection and analysis of different types of narrative data like children's own expressions and recounts as well as drawings of the gameplay. During the project we observed vivid narrative activity, resulting in diversity of discourses (monologic, dialogic, oral and written), having multiple interpretations.

The context of the present study involves working with two groups of children in two different learning settings. The first research group was formed by 11 primary school pupils aged 8 and 9. The four weekly sessions of the project were implemented in a middle class private primary school during school hours as an independent activity. The above sessions took place in the school computer lab. According to the school rules, children were not allowed to bring their own game devices at school. The second group was equally formed by 11 children aged 7-9. The four sessions took the form of an after-school family-based activity. In each after-school session a number of two to five children participated. Each child attended four sessions in a time span of four weeks. In the family-based sessions children worked on their own game devices and other devices provided by the researchers.

The data collected in the first phase of our research are integrated in two main categories (figure 1) claiming that children put their efforts into depicting the game either on the basis of the game narrative, or on the basis of the game interactivity. Interpreting a game on the basis of the narrative boosts the game plot development as well as game content. The game interactivity focuses on specific elements of a game loosely connected to the storyline. Based on the interactive potential of the game the player lays emphasis on “how” the game is played. Overall, children immersed in the narrative part of the games produced oral and visual narratives largely based on pre-prepared game content. On the contrary, children immersed in the interactive part of the games showed their preference towards the dynamic play features. Children's two sided preferences match progression and emergence structures that can be found in digital games. According to Juul (2002) in many digital games progression and emergence features coexist. It remains an open question to what extent children experience and narrate their gameplay according to their own preferences, progression-narrative based or emergence-interactive oriented.

Immersed in game narrative	Immersed in game interactivity
Emphasis on game story	Emphasis on interaction
Plot: the what	Action: the how
Game content elements	Game play elements
Progression: pre-prepared content	Emergence: dynamic play

Fig. 1: Children's narratives on their gameplay experiences

Focusing on children's drawings, creating digitally or by hand marks the choice of a different medium of expression that effectively shapes the message transmitted (McLuhan 1964). In most cases the choice of the medium for creating visual narratives was made according to children's own aptitudes: *“I'm not good at drawing, so I'll use “paint” (Aris working with paint on Subway surfers. Transcription of family-based group, session 2. Aris was asked to make a drawing on a game he preferred)* In general, drawings on paper focused on details and had better artistic results. On the contrary, drawings on “paint” had their limitations but also provided special tools to use as symbols. Working on “paint” sometimes posed difficulties for children to handle, related to the development of their digital skills. This led to frequent changes in emotions, from frustration to enthusiasm:

“I want to make a round circle and copy it...I don't remember how to copy. Where is “copy”? I can't find it... Here it is! But I have to do it. Mrs V (the informatics teacher at school) showed us how to do it but... (he looks frustrated)” (Transcription of family-based group, session 2, while Alex was working with paint on Pandalife sketches).

While drawing, kids expressed their understanding of the game concepts and how they identified with the game narrative. In some cases, their interpretations matched the intentions of the game designers. In many drawings there was a reliable depiction of critical game situations and

game elements. Even though most drawings were created with the child having no access to the digital game, they formed accurate representations of gameplay scenes. At a first glance, children's narratives provided information on the games' main characters. Depending on the game themes, the characters could be people, animals or fantastic creatures. In the drawings game characters used certain objects like weapons, tools or accessories which were consistent with the gameplay. The game setting was present in many drawings.

Immersed in the game narrative

Immersed in the game narrative the player focuses on the game plot, on basic game elements and, eventually, on game content that is prepared in advance by the game designers (Juil 2002). The drawings and oral narrative expressions that fall into this category provide realistic representations of the fictional universe of the game, giving details on the main characters, the objects and the game setting. In the Minecraft drawing (Image 1) there is a combat scene with the player holding a sword and the presence of Minecraft mobs. It depicts with accuracy the player and his weapons, the king dragon, the spider and the creeper. Respectively, in his oral narrative of the game, Tony, a Minecraft lover aged 9, maintains the realistic view on game description elements: *"This is a monster with no hands and four feet, coming close to you and exploding. Behind me there is a spider and above me there is the "king", the most powerful monster. It is a "dragon". And this is the king of... "Ender Dragon", all". (Transcription of after-school group, session 2. Tony described his drawing).*

According to Juul (2002) in most digital games emergence and progression features coexist, providing a mixture of narrative and interactive elements. Even though Minecraft is placed in the above game category (Belanger 2013), both narratives created by Tony focus on game description elements, lean towards the progression feature. According to Tony's descriptions, he seems to view Minecraft immersed in the narrative part of the game. This is probably due to the way he is experiencing the game and his choices during gameplay.



Image 1: Minecraft

Another example of realistic representation of the gameworld is the Papa Louie 2 drawing (Image 2), in which Nick, who loves drawing, aged 8, produced a detailed work on a current game snapshot. The oral narrative of the game remains equally realistic and lays emphasis on the game story:

“Papa Louie 2 is a game where you start with a player, you collect coins and try to beat various living food that is walking onions, burger” (Transcription of after-school group, session 2. Nick commented on his drawing).

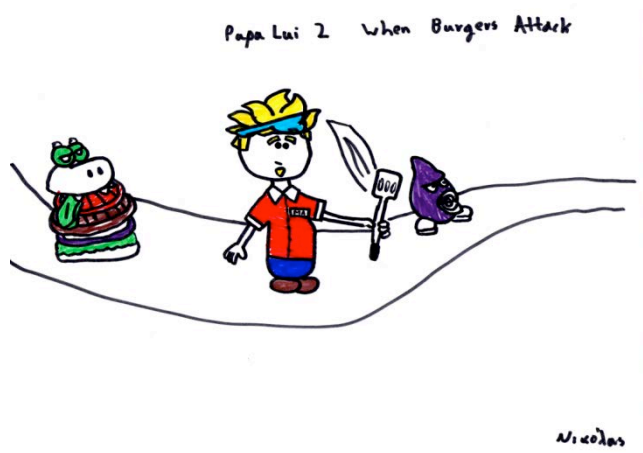


Image 2: Papa Louie 2

In their gameplay drawings, children have to meet the challenge of catching games given actions and situations. In many drawings fighting is a major issue to be presented, and motion consists a challenge to put in an image. An Ice Age Village drawing (image 3) clearly represents a fight scene, figuring Scrat and his fish enemies. The drawing depicts successfully a favorite part of the game to young players, focusing on the multiple fish and Scrat “kung fu” fighting moves. Put in words, this challenge is somehow difficult to meet:

- *It is a game where you have to kill these fish (shows the fish on the drawing), and if you kill these you lose lives.*
- *If you don't kill them you still lose lives?*
- *Yes. Ah! No...If you kill these (shows the blue fish) and if you leave these (shows the pink fish) to drop into the water you lose lives.*
- *So, there are good and bad fish...*
- *No, these are bad too. But if you cut them, you'll end up full of thorns... (Transcription of after-school group, session 2. Manos, a vivid young boy aged 8 commented on his drawing).*

In the above dialogue the child and the researcher are facing a conflicting situation related to the explanation of game rules and the player's drawing on the game screenshot. The "what" of the game seems to dominate, indicating the player's immersion in the game narrative.

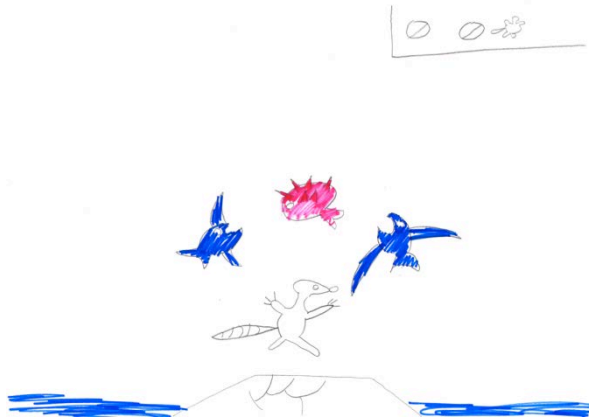


Image 3: Ice Age village

Immersed in the interactive

Immersed in the interactive the player focuses on the "how" of the game and designs strategies to handle game situations (Juul 2002). In many drawings children focus on separate parts of the gameworld, leaving out many narrative elements trying to capture the game complex system (Juul 2002). This is the case of Alex, a tinkering lover aged 7 who focused on critical parts of the gameworld. This had been a notable characteristic in both his drawings on Pandalife gameworld, depicting two different games in this Greek online role playing game for children (images 4a, 4b). In his drawings Alex successfully met the challenge of giving the gist of the gameplay, providing clues on how the game is played. The following dialogue was taking place while Alex produces his drawings, facilitating him to express his thinking. The child was having some difficulties with his task and got encouragement by the other speaker:

- *I'm doing the machine that pours honey*

- *It looks good*

- *Now, I'm going to draw a drop. Not this line, I need the other one. The curved one. oh, Gosh! It looks terrible...*

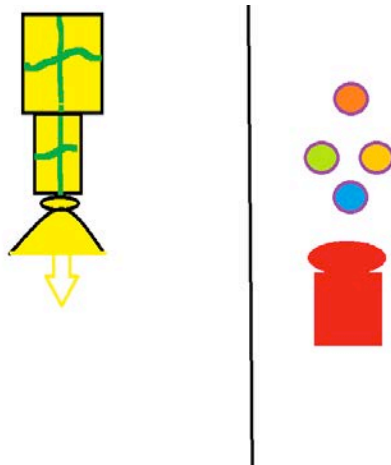
- *You're doing fine*

- *Basically, no, not. I won't put anything. Ah! I think I know what to put! Opa! Eh...how am I supposed to do it...Ah! Yes! (puts a yellow arrow looking down).*

And next, in the blank space (of the screen) I'm going to draw the other game...What's the name?

- *Froutomazemata (in English: Collecting fruits)*
- *But how am I supposed to draw grapes and the other fruits?*
- *What are you planning to draw?*
- *Dropping fruits. (Transcription of family-based group, session 2. Alex was speaking while working on "Paint" software.)*

In the above example Alex oral narrative production involves his attempts to express how he is related to the game complex "reality". Although they narrate through oral and visual modes, not all children have similar capacities in oral and visual ways of narrating.



Images 4a, 4b: Pandalife

Another challenge for children's interactive oriented thinking and narrating was to explain how the game is played, by clarifying player's possible moves and actions. In her effort to explain how she plays Subway Surfers, Vicky, a sports enthusiast aged 9, drew more than one characters and added arrows showing how the character moves in the gameworld (image 5). Her oral monological narrative during her drawing supported in an effective way her visual narrative:

"... It's this man and with some...boots, special boots, you can jump on trains, and when there is a space, something like this, you jump on it, get on the next train and move on. You can turn one side or the other, or you can go like this (shows on the drawing), and when there is a big banner with an arrow looking down, you have to go down in order to pass from beneath. And if you like, you turn the other direction and there is another kind of banner, sometimes it

says...shows you an arrow going upwards. And you have to jump upwards. That's all." (Transcription of family-based group, session 2. Vicky commented on her drawing).



Image 5: Subway surfers

In her description Vicky provides a simple and clear explanation of the game rules. Narrative is used to describe player's possible moves.

Conclusions – Open questions

The present small scale study helps us look into how children narrate their digital gameplay experiences. The findings of our study support us to discuss how children narrate their preferences for either the narrative or the interactive part of games, referring to either emergence or progression game structures. These preferences work like a prism for children through which they “express” their gameplay experience.

The data collected touch briefly key concepts related to Media Education, particularly to the ways children make sense of new media like digital games (Buckingham, 2007). The main issue concerns the ways children interpret digital games, orienting towards a narrative or an interactive direction. Other issues discussed are connected to the meanings children make on the basis of their experience on digital games. A first analysis of the narratives collected suggests that children create meanings according to their narrative or interactive perception of the

game. In some cases the meanings created were affected by the digital media children used during the making of their own narratives on the games they had played.

However, a discussion on children's narrative or interactive identification with the narrative or interactive during gameplay should consider the above not only as distinct features, but also as features that, sometimes, might coexist in children's minds as they also coexist in the designing of digital games (Juul 2002). To this direction, we should search further how these features blur and intermingle and to what extent children experiences and narratives of their gameplay activity fit around the progression-narrative or emergence-interactive structuring in order to formulate conclusions on whether these two categories are generic of children's experiences or/and narratives of their experiences.

The short duration of the present pilot project and the limited scope of interviewing and observing children's digital gameplay form limitations of the above study and address issues regarding the potential of generalizing based on these very findings. To this scope, enhancing research findings with more quantitative data could bring more light into a potential question concerning how a broader sample could fit with the above mentioned categories of 'narrative' and 'interactive'. However, the present qualitative study provides access to important aspects of children's experiences with digital gameplay and supports our understandings of how their narratives concerning those features deploy into certain categories and subcategories for further research analysis and interpretation.

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