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Gaminguistics: Proposing a Framework on the Communication of Video Game Avatars

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Abstract

This study attempts to construct a communication framework of video game avatars. Employing Aarseth's textonomy, Rehak's avatar's life cycle, and Lury's prosthetic culture avatar's theories as the basis of analysis on fifty-five purposively selected games, this study proposes ACTION (Avatars, Communicators, Transmissions, Instruments, Orientations and Navigations). Avatars, borrowing Aarseth's terms, are classifiable into interpretive, explorative, configurative, and textonic with four systems and sub classifications for each type. Communicators, referring to the participants involved in the communication with the avatars and their relationship, are classifiable into unipolar, bipolar, tripolar, quadripolar, and pentapolar. Transmissions, the ways in which communication is transmitted, are classifiable into restrictive verbal and restrictive non-verbal. Instruments, the graphical embodiment of communications, are realized into dialogue boxes, non-dialogue boxes, logs, expressions, movements and emoticons. Orientations, the methods the game spatiality employs to direct the movement of the avatars, are classifiable into dictative and non-dictative. Navigations, the strategies avatars perform regarding with the information saving system of the games, are classifiable into experimental and non-experimental. Departing from this ACTION, analysts are able to employ this formula as an approach to reveal how the avatars utilize their own 'linguistics' to communicate, out of the linguistics benefited by humans.

Keywords: *framework of communication, game avatars, game studies, video games, prosthetic culture.*

Introduction

Framework of communication in an avatar context is a multimodal structure (Fu, Li, Huang, and Danielsen, 2008) constructed in an immersive telecommunication method (Lee, Kim, Ahn, Lim, and Kim, 2005) to generate a particular identity for the creator (Oyarzun, Ortiz, del Puy Carretero, Gelissen, Garcia-Alonso, and Sivan, 2009). Multimodal structure of communication framework

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by avatars is intertwined with gaming elements mechanically and narratively attached to avatars, meaning that the communication of avatars is performed to indicate mechanical messages or the non-verbal aspects and narrative messages or the verbal aspects. These two types of messages generate immersive telecommunication, in which gamers become one with their avatars when traversing the gaming world. This immersion circumnavigates around the relationship between avatars and gamers, avatars and avatars, and avatars and the games. Thus, signifying how distinctive fashion of communication is exercised in response to each relationship. This distinctive fashion further indicates an identity building process, where gamers' identities are virtually projected through the avatars. The presence of this projective identity suggests that the identity virtually projected might reflect the true identity of the creator, a false mask, or a bot. Each category exercises a different means and method of communication. Thereby, it implies that the communication framework might act as prosthesis to establish the desired identity through avatars. The tripartite relationship between gaming elements, immersion, and identity in constructing the framework of communication of avatars contributes to the emergence of different paradigms on the avatar's communication framework. The first paradigm is called narratology. This view in the framework of communication claims that communication in a gaming context is language based as the language humans use in real life. Proponents of this view like Simons (2007) and Sicart (2011) maintain that games are not different from conventional works like a novel; thus the framework of communication falls into mimesis perspectives. Meanwhile,the second paradigm holds that framework of communication in video games is not like that of human's. The communication framework in video games as performed by avatars is mechanics-bound, meaning that linguistics, that serves human language, is not of primary concern. Aarseth (1997), Frasca (2007), and Juul (2001) perceive video games as being different from conventional works since their system and function are different. This study holds this second paradigm and thereby the 'linguistics' aspects analyzed in this communication framework study are not linguistics in general sense where words, clauses, phrases, and sentences are deemed as the analyzed units. Visual, kinetic, motion, and interaction replace those general aspects of linguistics and this prompts the emergence of what we attempt to elaborate as 'gaminguistics'.

Several studies have attempted to formulate a framework of communication for avatars, which exclude conventionally and a general sense of linguistics tied communication. Rinman et. al. (2003) emphasize the importance of non-verbal communication in articulating the communication

of avatars. Kujanpää and Manninen (2003) share a similar idea as that of Rinman et. al. with a focus more on the visual elements of the game avatars. Jin and Park (2009) propose a consideration on a parasocial element in the communication framework of avatar, in which gamers through their avatars have to negotiate between his identity as a human and as a virtual self. A psychological study by Trepte and Reinecke (2010) signify how the communication of avatars in video game context is heavily influenced by the level of life satisfactory gamers have, thus indicating that avatars might mimic or differ from their creators. Aseeri and Interrante (2018) claim that the social immersion of avatars in their virtual life holds a significant concern on articulating and shaping their communication. Moreover, with linguistics in video game context, Mondada (2011) proposes interactional linguistics to investigate and explore the way avatars communicate in the game world. Interactions in the game as she claims mostly revolve around action and command, articulated through imperative and directive speech acts. In the perspectives of gamer and avatar relationship, imperative and directive speech acts are realized through 'speech acts' in the form of button pressings through the provided interface.

Meanwhile, in the perspectives of avatar and avatar relationship, imperative and directive speech acts are articulated through dialogues. The way dialogues are articulated, the content of the dialogues, and the graphical representations of the dialogues depend on the types of avatars. This condition generates what is called as knowledge asymmetries (Piirainen-Marsh and Tainio, 2014). In the case of avatars, it results from biased interactions between gamers, avatars and the game world. These biased interactions occur due to the function of language in the games which serves both mimetic and diegetic purposes. Languages used in games are the representation of real life languages, which are natural, but they are artificial at the same time. This overlapping function generates this knowledge asymmetry. The novelty of this study lies in its rigid and systemic concept of action. Mondada situates the action in a leaning to linguistics more than to the technical aspects of the game. Meanwhile, this study addresses both games as mechanical narratives as implied by Rinman, Kujanpää and Manninen, Trepte and Rein, and Aseeri and Interrante and games as linguistics products as implied by Mondada and Piirainen-Marsh and Tainio. The addressing is vividly articulated through signifying action into Avatar types, Communication, Transmission, Instrument, Orientation, and Navigation.

Research Question

1. What types of avatars are classifiable based on their life cycle and textonomy?
2. What communication framework of avatars is constructible from the perspectives of prosthetic culture and textonomy?

Literature Review

The Communication Framework of Video Game Avatars

The communication framework of a video game avatar is exercised by the fact that gamers are crossing over from their world to the gaming world involving other gamers, their representations, the games and their machines as the means of crossing over and signifiers for a shift of place, world, and culture. This structural relationship shown by gamers and avatars is prosthetic, a relationship resulting from the process of learning and habituation, which projects the avatars as the extension of the gamers (Klevjer, 2006). This structural relationship signifies the presence of a structural communication framework, from which immersion becomes the axis of construction. Immersion means that the communication framework has to concur to the fact that avatars live in a virtual world, which draws gamers to merge themselves with their virtual entity. Lee, Kim, Ahn, Lim, and Kim (2005) call this telecommunication which is prosthetic in nature and evokes a self-construal and parasocial interaction (Kusumastuti, 2019; Jin and Park, 2009). This interaction, which relies on non-lingual aspects, is called prosthetic culture, a culture with a belief that a thing, an object or a part has the ability to be taken out of context (Lury, 1998). In terms of game avatars, the prosthetic culture attempts to elucidate that avatars own their own cultures, from which they live and communicate with their textual structures to allow the emergence of gamers' learning and habituation. This mediation requires an engagement act provided by the games and accessed by the gamers. This engagement is called textonomy, the study of how texts are accessed (Aarseth, 1997; Eskelinen, 2012); it signifies and differentiates how the games feature their avatars. In terms of game avatar creations by the gamers, some avatars are only accessible by the gamers in terms of personalizing the names of the avatars, some allowing a total creation of the avatars including physical and psychological attributes.

These different types of avatars require the gamers to perform different types of engagement toward the games, though generally, gamers engage the game avatars through button inputs conforming to the user interface (Waggoner, 2009). In relation to the textuality of video games,

avatars function as accessing tools for the texts and textual structures of video games, comprising of visual, kinetic, motion, and interaction, thereby implying that gaming experience takes place through this framework of communication.

Engaging the communication framework of avatars signifies the role they have as the gamers' bodily extension and a tool to access game structures. This role implies that avatars generate social influences in digital domain and these social influences are exercised through a communication framework, which becomes the identity of how avatars communicate. Thereby, the 'linguistics' of an avatar is different from the 'linguistics' of humans, since the elements to identify how avatars communicate are different. The existence of these social influences denotes that social presence in the form of avatars plays crucial roles in the emergence of the influences, constructing the dimensional thresholds of identity, power and representation (Vander Valk, 2008). This avatar centric communication, as implied by Vander Valk, indicates that different types of avatars generate different influence. Rehak (2003) signifies the importance of addressing an avatar's life cycle comprising of birth, life, death, and rebirth to point out how this cycle might be used as a basis to identify particular traits, which differentiate each avatar. Through this identification, a different degree, level and type influence in communication framework might be noticeable. This condition indicates that a communication framework in a video game context relies on the presence of avatar.

Interactional Linguistics in Video Games

Linguistics interactions in digital world are dependent on the interaction not only between addressers and addresses but also medialities and modalities. The combination between these triangular elements between users, media, and modals serves as a necessary repetition for gamers to interact. Marsh and Tainio (2009) imply that this repetition is what defines the interaction in games. Mondada (2011) further indicates the importance of this interaction under the study of interactional linguistics, in which speech acts are designed as such to signifiy action and coordination by gamers through game characters. This statement implies that action and coordination are two major elements in the linguistic aspects of interaction and further signifying the presence of particular framework of communication.

In regard to this framework of communication, the interactions in digital world context like video games are fundamentally computer-mediated and thereby any lingual interactions are bound to

computer-mediated communication (CMC), which emphasizes that linguistics properties in CMC are different from communication not mediated by computer (Herring, Stein, Virtanen, 2013). This difference leads to an understanding that the languages used in gaming interactions have similar functions to that of real life languages but different in a sense that the languages are artifically designed. Thereby, directive and imperative speech acts, as implied by Mondada, might have similar functions but differet forms. Directive and imperative speech acts in games are related to action and command functions yet their realization is different. Gamers express their directive and imperative acts through button pressings not verbal utterances, implying that button pressings through menu interface have similar traits to utterances.

Actions performed by avatars through gamers influence and affect the spatial and temporal unity of the game world (Kirkland, 2009) and thereby speech acts mechanically performed through button pressings share similarities to what is called as illocutionary act. In fact, Searle (1976) locates directives as an illocutionary act, implying that avatars are treated as gamers' agents in influencing the game world the avatars live. It further suggests that the interactions avatars perform are actually similar to that of interactions in real life with real languages. Thus, games have their own language properties which define the linguistics of the games.

Method

Research Approach

This study is a game study; therefore, a game research approach was applied. The approaches applied in this qualitative study were ludonarrative by Aarseth (2012) and proceduralism by Bogost (2008). Ludonarrative perceives a video game as a system of mechanics, from which narrative is elicited. To put it simply, mechanical elements like visuals, texts, and kinetics function to identify the narrative of the games, from which communication between games and gamers occurs in an interpretive plane. In this research, ludonarrative was implemented to reveal how avatars display their own narrative in the form of communication framework through the utilization of gaming mechanical elements. Treating communication framework for avatars as a narrative indicates that avatars live in a prosthetic environment, in which avatars and gamers are connected to generate a meaning making process.

On the other hand, proceduralism was applied to ensure that the theories used to formulate a classification of avatars and their communication framework is integrible to generate a holistic

meaning of the formulation. Thus, it was expected that the classification has taxa. which are vertically and horizontally connected each other. The vertical connection might indicate how the life cycle of avatars influences their types, while horizontal connection might point out how avatar types determine the emergence of particular communication framework elements.

To avoid any bias, the research scope is limited on the framework of communication encompassing the communication of avatars to avatars, avatars to gamers, and avatars to games. As stated in the introduction, the communication analyzed is not conventional communication, relying on linguistics aspects as utilized by humans, but gaming functioning elements to transfer information. The consequences foreseen and grasped from this scope were that the proposed framework of communication would only be operative in the gaming domain, but not other domains like social media avatars, digital profile avatars, and platforms with avatar making or controlling features.

This study, besides concerning on technical aspects of avatars, also highlights a concern on the linguistics aspects in terms of their user's functions, how users determine game narratives (Aarseth, 1997). Four types of user's functions are existent namely interpretive, explorative, configurative, and textonic. Each user's function is differentiated through their different degree of usability freedom particular games offer to the gamers. Interpretive has the most limited freedom of usabilily, meaning that avatars under this type linguistically have limited expressions. Explorative functions have a higher degree of usability freedom than interpretive functions in terms of instructions. Configurative functions, allowing gamers to decide how avatars react and respond linguistically, have higher freedom than the previous two functions. The last, textonic has the highest freedom since it allows gamers not only to decide how avatars react and respond but modifying the entire game narrative. Departing from these user's functions, it was expected that the result of this study would indicate that the level of freedom usability that the games have influences avatar categorization and how they express themselves in a framework of communication.

Research Procedures

Fifty-five games were purposively selected and analyzed to classify the avatar types and their framework of communication. Three criteria were used to select those fifty-five titles. The first criterion used was the availability of avatar customization features. The second criterion was the game machines the games were played on: PC, console and online games. The third criterion was

that the titles were categorized as game franchises. These criteria were employed to display linearity with the structural, proceduralist and textonomic natures of video games. The analysis to classify the avatar types and the framework of communication surrounding them was based on Aarseth's theory on textonomy, Rehak's theory on avatar's life cycle, Lury's prosthetic culture and Klevjer's avatar theory. The analysis result was employed as a point of departure to reveal the communications the avatars have involving the games, the gamers and, other avatars

The communication framework this study attempts to establish circumnavigates around ACTION standing for Avatars, Communications, Transmissions, Instruments, Orientations, and Navigations. Avatars in ACTION refer to types of avatars, categorized based on the theory of the avatar life cycle by Rehak and the user's function by Aarseth. The combination of this research would show that avatars are classifiable based on their birth, life, death, and rebirth in the games, as well as the freedom gamers have to create and control the avatars. Communications refer to the 'whom' and 'what' the avatars interact to. Transmissions deal with how communications are expressed by the avatars. Instruments move around the graphical representations of the articulated communication. Orientations refer to the geo spatiality games have in serving the presence of communication by the avatars. Finally, navigations deal with how the avatars' communication is linked in a relationship with game genres.

Data and Source of Data

The sources of data were the avatars taken from fifty five game titles, selected under the guidelines of formal approach to analyze video games as theorized and formulated by Lankoski and Björk (2015). The data, namely visual, kinetic, motion, and interaction elements, extracted from avatars, were classified based on the second paradigm of communication framework as stated in the introduction. These four elements were analyzed to reveal the 'linguistics' of the avatar. Visual elements refer to the graphics of the avatars, kinetic to how gamers control the avatars via joysticks or keyboards, motion to how the avatars move in the game, and interaction to what features avatars have to interact with other avatars, gamers, and game environments. These four elements are the 'linguistics elements' of game avatars. The following table explains the game titles, criteria of selection, and reasons of selection:

Table 1

Game Titles and Their Criteria and Reasons of Selection

No	Title	Developer/Publisher	Criteria	Reasons
1.	Assassin's Creed	Ubisoft	Action RPG	Limited modification on controlled avatar
2.	Assassin's Creed II	Ubisoft	Action RPG	Limited modification on controlled avatar
3.	Assassin's Creed III	Ubisoft	Action RPG	Limited modification on controlled avatar
4.	Assassin's Creed IV: Black Flag	Ubisoft	Action RPG	Limited modification on controlled avatar
5.	Dig 4 Destruction	COLOPL	Multiplayer	Self-avatar
6.	Disgaea	Nippon Ichi Software	Strategy RPG	a massive roster of controlled avatars
7.	Disgaea 2: Cursed Memories	Nippon Ichi Software	Strategy RPG	a massive roster of controlled avatars
8.	Dragon Age II	Bioware	Action RPG	Limited modification on controlled avatar
9.	Dragon Age: Inquisition	Bioware	Action RPG	Limited modification on controlled avatar
10.	Dragon Age: Origins	Bioware	Action RPG	Limited modification on controlled avatar
11.	Dragon Nest	Eyedentity Games	Massively Multiplayer Online RPG	Avatar making
12.	Elder Scrolls V: Skyrim	Bethesda	Open World RPG	Extensive and vast features of avatar making
13.	EVE: Valkyrie	CCP Games	Shooter	Self-avatar
14.	Final Fantasy II	Square Enix	Traditional RPG	Limited modification on controlled avatar
15.	Final Fantasy VIII	Square Enix	Traditional RPG	Limited modification on controlled avatar
16.	Final Fantasy IX	Square Enix	Traditional RPG	Limited modification on controlled avatar
17.	Final Fantasy X	Square Enix	Traditional RPG	Limited modification on controlled avatar
18.	Final Fantasy XII	Square Enix	Traditional RPG	Limited modification on controlled avatar
19.	Final Fantasy XIII	Square Enix	Traditional RPG	Limited modification on controlled avatar
20.	Final Fantasy Tactics	Square Enix	Strategy RPG	a massive roster of controlled avatars
21.	Legend of Mana	Square Enix	Action RPG	Limited modification on controlled avatar
22.	Metal Gear Solid	Konami	Stealth Action RPG	Limited modification on controlled avatar
23.	Metal Gear Solid 2: Sons of Liberty	Konami	Stealth Action RPG	Limited modification on controlled avatar
24.	Metal Gear Solid 3: Snake Eater	Konami	Stealth Action RPG	Limited modification on controlled avatar
25.	Metal Gear Solid 4: Guns of the Patriot	Konami	Stealth Action RPG	Limited modification on controlled avatar
26.	Metal Gear Solid 5: The Phantom Pain	Konami	Stealth Action RPG	Limited modification on controlled avatar
27.	Mighty Final Fight	Capcom	Beat 'Em Up with RPG elements	Limited modification on controlled avatar
28.	Naruto Shippuden Ultimate Ninja Storm 4	Bandai Namco	Fighting with RPG elements	Limited modification on controlled avatar

29.	Ragnarok Online	Gravity	Massively Multiplayer Online RPG	Avatar making
30.	Ragnarok Odyssey	Gravity	Massively Multiplayer Online RPG	Avatar making
31.	Red Dead Redemption	Rockstar	Open World RPG	Limited modification on controlled avatar
32.	Rhapsody: a Musical Adventure	Nippon Ichi Software	Strategy RPG	Limited modification on controlled avatar
33.	Seal Online	Grigon Entertainment	Massively Multiplayer Online RPG	Avatar making
34.	Suikoden I	Konami	Traditional RPG	a massive roster of controlled avatars
35.	Suikoden II	Konami	Traditional RPG	a massive roster of controlled avatars
36.	Suikoden III	Konami	Traditional RPG	a massive roster of controlled avatars
37.	Suikoden IV	Konami	Traditional RPG	a massive roster of controlled avatars
38.	Suikoden V	Konami	Traditional RPG	a massive roster of controlled avatars
39.	Tactics Ogre	Square Enix	Strategy RPG	a massive roster of controlled avatars
40.	Tales of Destiny	Bandai Namco	Traditional RPG	Limited modification on controlled avatar
41.	Tales of Eternia	Bandai Namco	Traditional RPG	Limited modification on controlled avatar
42.	Tales of the Abyss	Bandai Namco	Traditional RPG	Limited modification on controlled avatar
43.	Tales of Vesperia	Bandai Namco	Traditional RPG	Limited modification on controlled avatar
44.	Tales of Xillia	Bandai Namco	Traditional RPG	Limited modification on controlled avatar
45.	Valkyria Chronicles	Sega	Strategy RPG	a massive roster of controlled avatars
46.	Vagrant Story	Square Enix	Action RPG	Limited modification on controlled avatar
47.	Wild Arm	Media Vision	Traditional RPG	Limited modification on controlled avatar
48.	Wild Arms 2nd Ignition	Media Vision	Traditional RPG	Limited modification on controlled avatar
49.	Wild Arms 3rd Advanced	Media Vision	Traditional RPG	Limited modification on controlled avatar
50.	Wild Arms 4th Detonator	Media Vision	Traditional RPG	Limited modification on controlled avatar
51.	Wild Arms 5th Vanguard	Media Vision	Traditional RPG	Limited modification on controlled avatar
52.	Xenogears	Square Enix	Traditional RPG	Limited modification on controlled avatar
53.	Xenosaga: Der Wille Zur Macht	Monolith	Traditional RPG	Limited modification on controlled avatar
54.	Xenosaga Episode II: Jenseit von Gud und Bose	Monolith	Traditional RPG	Limited modification on controlled avatar
55.	Xenosaga Episode III: Also Sprach Zarathustra	Monolith	Traditional RPG	Limited modification on controlled avatar

Techniques of Collecting Data

In collecting the data, first, the researchers played the games. Second, the researchers created or modified avatars for games instructing the gamers to do so. Third, the researchers controlled the avatars to incite the emergence of visual, kinetic, motion, and interaction elements attached them, and collected the elements deemed to concur to the data by Lankoski and Björk. The fifty-five selected games were played through their respective gaming systems, covering both consoles and PCs. Fourth, in collecting the data, while playing the games, the researcher video-captured the avatar making process or the avatar introduction section and their engagement with other characters to create a log consisting of cut-scenes. Fifth, after the data were collected, they were coded by referring to the data number, game title, avatar type and their ACTION.

1/SII/Exp/B-RV-DB-D-E

1: first datum

SII: *Suikoden II*

Exp: the avatar type is Explorative

B: the avatar communication type is Bipolar

RV: the avatar transmission type is Restrictive Verbal

DB: the avatar instrument type is Dialogue Box

D: the avatar orientation type is Dictative

E: the avatar navigation type is Experimental

Techniques of Data Analysis

Collecting the data, Spradley's theory (2016) on data analysis technique was applied. This theory was selected since it procedurally enables researchers to indicate how theories used to analyze the data are interplayable and interchangeable. This data analysis technique comprises of four stages, namely domain, taxonomy, componential, and cultural theme. Domain analysis deals with the inclusion and exclusion of data and non-data. The data of this study is the controlled avatar. Avatars which are not controlled by gamers or called as non-playable characters (NPC) are not data. Taxonomy circumnavigates around data classification based on the employed theories. Componential analysis works on connecting the data, analyzed by Aarseth's textonomy theory, Rehak's avatar life cycle, and Lury's prosthetic culture, to generate a link that connects them as a

single component. A cultural theme is exercised to extract the meaning of the link, generated from componential analysis. The detail of each step is discussed below.

Domain analysis was exercised by classifying avatars and non-avatars based on the theory of Klevjer (2006). Applying this theory, the researchers were able to spot which characters were categorized into avatars and which ones were not, implying that the separation between data and non-data was clearly cut. After exercising domain analysis, taxonomy analysis was next.

In taxonomy analysis, avatars were analyzed by applying the three primary theories that have been discussed in the literature review, namely Rehak's avatar's life cycle theory (2003), Aarseth's user function theory (1997), and prosthetic culture (Lury, 1998). Rehak's avatar's life cycle theory (2003) was applied to spot how they were classifiable by types in regard to their life cycle. After being classified by types, analyses were done regarding how the avatars interact by applying Aarseth's user function theory (1997). Componential analysis requires the taxa, which were avatar types and interactions, to be linked to indicate the presence of a particular formula. In this research, the formula was a framework of communication, specifically designed for video game avatars. In a cultural theme analysis, this formula is further examined to spot how it is implementable to analyze how avatars communicate in various game genres with prosthetic culture (Lury, 1998) as the guiding theory.

Findings

Video Game Avatar Types

The findings show that 483 game avatars, found from fifty-five games, are classifiable in their usability cycle, adapted from Rehak's theory of avatar's life cycle with birth system being the difference, comprising their birth, life, death, and rebirth system**.** The cycle is termed usability due to the fact that the communicative nature of video games is trans-diegetic. As a result, the addressers and recipients of this communication, gamers and their avatars, require a system of usability to enable them to interact in communication. Due to the necessity of the system to be accessible by the users, namely the gamers and their avatars, textonomy is mandatory to be implemented in the system.

Each system under the usability cycle is classifiable into sub classifications. Borrowing Aarseth's terms of user functions (1997), each sub classification is based on interpretive, explorative,

configurative, and textonic user functions. In terms of avatar birth system, the avatars are classifiable into requisitive, projective, duplicative, and emulative.

Table 2

Avatar Types

Avatar Life Cycle System				
User's Functions	**Birth**	**Life**	**Death**	**Rebirth**
Interpretive	Requisitive	Restrictive	Continuative	Selective
Explorative	Projective	Distributive	Calculative	Transmissive
Configurative	Duplicative	Remunerative	Appreciative	Expenditive
Textonic	Emulative	Operative	Reactive	Modificative

Aarseth's user's functions are primarily classified based on the degree of usability freedom. Interpretive functions have the most limited freedom for users or gamers in this study; thus, linguistically, avatars categorized into this user function communicate their expressions in a different degree of freedom. This different degree of freedom, in interactional linguistics perspectives, is intertwined with the illocutionary act avatars perform. Avatars with textonic user functions disclose a wider range of illocutionary act since it has the highest freedom of usability.

Requisitive avatars are avatars that disallow gamers to make any modifications at the start of the game but allowing the gamers to add equipments, accesories, and other peripherals obtained after meeting certain requirements to interpretively define the gamers through the avatars as the games progress. This type of avatar is graphically categorized into avatars of which the peripherals are visually altering, non-visually altering, and visually altering some parts of the physics of the avatars. Examples of requisitive avatar types with non-visual alteration are basically perceived from any RPG titles and their subgenres and other genres with RPG elements. Projective avatars permit the gamers to do a limited modification on the avatars like their names and color palletes with some games retaining the accessory customization as featured in interpretive avatars. Duplicative avatars open access to the gamers to create the avatars with a wide spectrum of designing tools. Emulative avatars open a greater access for the gamers to create their own avatars from their own design and install the avatars on the games, a process termed modding in gaming terms, or with certain design tools to record the gamers' faces.

In term of life system, the focus is on the growth of the avatars commonly mechanized through leveling methods. Some games employ experience points (EXP) to level up the avatars and some employ non-experience points like the points for the avatars' weapons or equipment. Based on

these classifications, avatars, categorized under life system, are classifiable into restrictive, distributive, remunerative and operative avatars.

First avatar type, restrictive avatars, refers to levelling-based grown avatars with non-distributive EXPs. The points acquired automatically grow the levels of the avatars and thereby the players have no control on the distribution of EXPs for their avatars. Once the avatars acquire EXP points, their levels will grow. Most RPG titles with avatar customization as aforementioned employ this type of avatar. Distributive avatars, the second type in this life system, are avatars with distributive EXP points to grow their levels. Games with this avatar type provide opportunities for the gamers to grow their avatars based on their preferences. *Final Fantasy X'*s Sphere Grid System, *Elder Scrolls V: Skyrim'*s Perk System, and *Yakuza 4*'s Soul System are some of the examples. Third, remunerative avatars require the avatars not only to defeat some monsters to gain EXP points but also to complete quests, to finish minigames, to buy DLC (*downloadable contents*), or to buy certain items to grow the level. RPGs with online systems commonly have all of these features.

The last type, operative avatars, refers to avatars who grow without EXP points. Their growth is either determined by the equipment, weapons, or accessories they wear or by the skills and abilities they possess. In Square Enix's *Final Fantasy II*, for example, the avatars grow based on their proficiency on their weapons and the skills they intend for their mastery; the more frequent the avatars use certain weapons or skills, the more proficient they are with them. In Square Enix's *Legend of Mana*, a unique combination of EXP points and other statistic elements allow the avatars to grow in a complex manner. In the game, the growth of the avatars is influenced by the drops of experience crystals and the weapons they carry. A more complex system on operative avatars is perceivable from Square Enix's *Vagrant Story* with weapons and armors holding significant growth to the avatars. They require not only upgrading but attribute affinity adjustments to hone the avatar's battle skills.

Death in video games are not immersion and empathy triggering narratives; it asks for strategies to win and control the actions (of the avatars) (Wenz, 2014) and thereby it implies that the death in video games is not on how the avatars die but how the gamers respond to the death. This response is mechanically embodied through 'game over' screen. Departing from this mechanical response, in terms of the death system of avatars, the avatars are classifiable into continuative, calculative, appreciative, and reactive avatars. Continuative avatars require the gamers to respond their death by clicking numerical counting-continue menu to decide whether the gamers will

continue using the avatars to engage in the games or not. These avatars are the most common types found in any game genres; they are found in most fighting games, in most all of RPG titles, in most casual games and its derivative spin-off titles. Calculative avatars combine the features of continuative avatars with reward based points like EXP or in-game currency being calculated and rewarded to the gamers to enhance their avatars. This reward system combination implies that the games mechanically ease the gamers to engage and immerse in the game world.

In regard to the death system, the mechanics to ease the gamers in playing the games after the avatars are dead is also of difference in easing the gamers. Appreciative avatars, in terms of their death mechanics, are of diversity in providing methods for the gamers to select the helps the games provide for the avatars. In *Naruto Shippuden Ultimate Ninja Storm 4*, for instance, when the avatars lose a fight in a story mode, they are presented options to boost the defence or the offense of the avatars so the rematch would be won through this structure of expectation. These options, though being aimed at easing the avatars in engaging the battle, are still constructed to keep the game balanced in the difficulties in order to preserve the gaming replay value and experience. This balance is, to some extent, disrupted by the emergence of the next avatar type under death system namely reactive avatars. This avatar type, as the name implies, is the result of reaction by the gamers for being unable to accomplish the game. Games for the seventh and eighth console generations mostly provide Downloadable Content (DLC), a patch gamer can purchase to ease the game and to deliver a new additional experience to the games.

The last, in terms of rebirth system, emphasizes the methods the gamers take influencing the physical and statistical attributes of the avatars after the gamers decide to abandon the previously played avatars. The avatars, in this rebirth system, are classifiable into selective, transmissive, expenditive, and modificative. Selective avatars are reborn from the re-selection and the re-creation by the gamers via character selection, creation, or customization interface provided by the game. This re-creation shifts into an avatar with a different type when the avatar requires purchasing to modify and re-create the avatar. That avatar is classified into transmissive avatar. These transimissive avatars are avatars whose rebirth system is structured, mechanized, and operated from DLC to which the gamers have to purchase certain items to re-create the avatars. Besides DLC, options to re-create avatars occur from the possibilities for the gamers to commercially disseminate the avatars to other gamers. If this type of rebirth system occurs, the avatars are classified into expenditive avatars. In expenditive avatars, due to a different shift of

ownership, reflect the violation of mimesis paradigm of avatar creation, that avatars tend to mimic their players (Rehak, 2003), because the avatars experience a shift of ownership. Departing from this functional position, avatars re-created independently by the gamers for both gaming and commercial purposes occur. These avatars are classified into modificative avatars. These avatars are accessible on games with self-development kits (SDK) allowing the gamers not only to create or re-create avatars but the whole game environment and install them into the games.

Communication Framework of Video Game Avatars

Avatars and the Communicators of Communication

Departing from the 'linguistics' of video games as implied from Aarseth's and Rehak's theories, comprising of visual, kinetic, motion, and interaction, we propose ACTION (Avatars, Communicators, Transmissions, Instruments, Orientations, and Navigation) as the communication framework for video game avatars. These six elements are the embodiment of the 'linguistics' of video games.

Avatar types, primarily classified into interpretive, explorative, configurative, and textonic, articulate their communication based on participants communicating with the avatars (communicators), the ways the communication is transmitted (transmission), the graphic embodiments of the communication (instruments), the game spatiality methods to direct the avatars in delivering their communication (orientations), and the communication relationship the avatars have with the game genres (navigation).

Those involved in a communication with avatars, as aforementioned, range from the gamers, the games and other avatars. This involvement in communication generates communicators. Examining the communicators, one might comprehend the communicative behaviors the avatars have when they engage in a communication with other gaming-related parties. Communicators are classified into five types in terms of the relationship between the communicators, namely unipolar, bipolar, tripolar, quadripolar, and pentapolar.

The use of the word 'polar' signifies the importance of avatars as the polar in the communication among other communicators. This label conforms to the idea of polarized communication, where one party was able to assume a position of conviction while remaining open to 'new' information (Arnett, 1986). This polarized communication, in the gaming context, occurs due to competitive-

natured video games. In unipolar communicator, the communication happens on the characters which function as the avatars in virtual reality This seemingly quaint communicator occurs in games with virtual reality (VR) features like *EVE: Valkyrie* and *Dig 4 Destruction*. In these games, the gamers are directly transforming themselves into avatars once they wear VR kits like Oculus Rift or Google Dashboard. The communication occurs as the gamers situate themselves with their physical bodies to adjust in a world of virtual reality. When the communication engagement has shifted into the communication between the avatars and the game worlds, the communicator has become bipolar. In this the second communicator, the gamers who simultaneously become avatars and communicate with a physical turned virtual world where the gamers engage.

This bipolar communicator also occurs in game genres with cutscenes, a plot emphasizer presented in a cinematic design, such RPGs. In this bipolar communicator, the gamers have no control of the communication between the avatars and the games, but the fusion between the avatars and the games in the cutscenes projects a bipolar communication between the games-avatars with the gamers that assist them in diving deeper into the games and engage in the gameplay. This absence suggests that avatars have the abilities to segregate themselves to establish their own prosthetic cultures with their own speech community to engage. This speech community experiences an enlargement in the terms of member numbers in tripolar, quadripolar, and pentapolar. In tripolar communicators, the speech community involves the avatars, the gamers, and the games. In quadripolar, the avatars, the gamers, the games, and other avatars are involved in the communication. In pentapolar, the communicators involve the avatars, the gamers, the games, other avatars, and other gamers.

Avatars and Their Transmission of Communication

The third part of ACTION, transmission, is classified into restrictive verbal and restrictive non-verbal. This classification is based on the restrictive nature of video games, consisting of restrictions on the technology, memory, processors, machine code, languages, software and audiences (Gazzard, 2013). In restrictive verbal transmission, the avatars execute the communication verbally and in a restricted mechanics. This transmission type is mostly found in explorative, configurative and textonic avatars functioning as silent protagonists. Games with these avatars like *Breath of Fire I-IV*, *Suikoden I-V, Dragon Quest I-VIII*, *Elder Scrolls V: Skyrim* and

Dragon Age: Inquisition are commonly designed with avatars transmitting the communication through restricted oral based and subtitle based verbal expressions.

Restricted oral based verbal expressions are mostly displayed in emotives and referentials for battle engagements and talk responses. Emotives refer to feelings-related expressions like shouting, sighing and laughing. Emotives appear in any game sections where the avatars express their feelings and emotions. Meanwhile, referentials refer to expressing the name of battle techniques or expressions synonymous with those used by the avatars. These referentials are found from narrative blended fighting games with configurative and textonic avatars like *Dragon Ball Xenoverse* and RPGs with explorative avatars like *Breath of Fire* series, *Dragon Quest* series, and *Suikoden* series. The functions of these referentials are of mechanics and narratives. Mechanic functions indicate that the referentials display the mechanics of the avatars when they exercise their battle techniques, while narrative functions denote the relationship between the referentials and the story related to the avatars.

The second communication transmission is restrictive non-verbal. This transmission is substantiated through physical movements, emoticons, and the combination of both. Fundamentally, any physical movements are restricted by the game mechanics. The freedom of movement is within the line creating the circle, but the circle line itself is a restriction for the freedom. This concept of a sacred circle finds its linearity with the concept of localized communication theory in ethnography. In the video game context, as aforementioned, the polarization in communication between game avatars, gamers, games, other avatars, and other gamers is an indication for connection thematization, constitution, and management.

Avatars and Their Instruments of Communication

The instruments game avatars employ to transmit their communication are inseparable from the screen space of the video games. Screen space is a constructed and represented on screen with navigation, interaction, and individual's game worldview as the determinants (Wolf, 2001). The generated communication procedures are visually embodied to indicate the communications of the avatars via window based dialogue boxes, non-window based dialogue boxes and logs for verbal communications and movements, expressions, and emoticons for non-verbal ones.

In dialogue boxes, the verbal messages of the avatars are presented on a window with a click-based system, non-click based system, and logs to complete the non-verbal messages delivered through

graphics based movements, expressions, and emoticons. Static information in the games allows the gamers to have a control of the information flow and thereby, in regard to avatars, the status of being static situates a tripolar communicator relationship between the avatars, the games, and the gamers with the avatar suffering from interpretive and explorative user functions. These functions are especially visible from the transient nature of dialogue boxes. Transient indicates that the passing of a user's time causes the scriptons (text) to appear (Aarseth, 1997). In the context of dialogue boxes, the control the gamers have determines whether information appears in the boxes or not. This control suggests that the degree of importance the information has contributes to the decisions by the gamers whether to read the information presented on the boxes or not.

Avatars and Their Orientations of Communication

Communication from game avatars' perspectives requires not only transmissions to articulate the information and instruments to facilitate the information transmission, but also orientations to acquire the information. In orientations, the focus is to understand how the game spatiality offers spaces for the avatars to obtain information. In side-scrolling games like *Megaman X* series, the orientation of the games is to dictate the gamers to move the avatars in a side scrolling manner. The spatiality requires the avatars to leap, attack or run; the geospatiality design actually dictates them to move on to a single direction through a single method, side-scrolling. This dictative act geo-spatiality incurs influences the way mechanical and narrative information is acquired and thereby, prompts the avatars to traverse the games in certain orientations in their attempts to acquire information. Due to the necessity to explore the game world to acquire information, spatiality comes into concern. Spatiality, with its derivative categories, contributes significantly to how the avatars acquire the information since spatiality is a relevant factor of interactivity (Gunzel, 2008).

In relation to the communications of the avatars, game spatiality constitutes a characteristic of prosthetic culture in which two types of orientations are emergent namely ditactive and non-ditactive orientations. In ditactive orientations, the game space dictates the avatars to explore the game world in a procedural manner, while in non-dictative orientations, the avatars dictate the game space. In the first type, the avatars have to explore and accomplish certain requirements per area or stage procedurally to unlock the next stage for the avatars to walk through, but in the second type, the game world is already present for the avatars to explore without any restrictions. Dictative

orientations control the type and flow of information, as well as the time to acquire the information. Thus, it positions game avatars as a passive communicator with the game world to actively and procedurally feed the avatars with information. Meanwhile in non-dictative orientations, the game world acts passively, but the game avatars actively act to acquire information. Thus, games with dictative orientations are world-centered games while games with non-dictative orientations are avatar centered games. This dichotomy, resulting from the presence of avatars and their communication features, indicates that the communication of the avatars displays navigation to the game genres.

Avatars and Their Navigations of Communication

Navigations of communication refer to the strategies the avatars might undertake in response to the information saving system of the games. The saving system records gaming progress by the gamers, allowing the gamers to resume the games from the last saved point. Generally, the saving system is classifiable into a save point, check point and the combination of both from which different strategies in acquiring new information are taken by the avatars depending on the saving systems the games offer. As proposed by Crawford in Newman (2012), saving systems in games generally mechanize the gamers to perform save-die-retry mechanism. Crawford, in this response to saving mechanism, does not specifically treat the 'save-die-retry' as a strategy, but as a mechanism due to the non-avatar focus he has in eliciting the discussion about the saving system. Treating the 'save-die-retry' mechanism as a strategy by avatars suggests that the focus lies on the communicative behaviors of the saving system and of the avatars. Both the save point and checkpoint systems mechanically and narratively suggest that the information the avatars might experience in the following game sections are of importance; it further suggests that due to the degree of importance, challenges to acquire the information might be of certain difficulty level. Thus, certain strategies to accomplish the challenges by the avatars are of necessity to execute. Departing from this logical mechanism, the strategies taken by the avatars are assumed to be embodied into certain communicative behaviors by the avatars. In action RPGs, *Mighty Final Fight* for example, employs a non-save system in the 8-bit NES (Nintendo Entertainment System), but utilizes a continue system, allowing the gamers to select the avatars to retry engaging the challenges in the game without any enhancement on the avatars to ease the game. The only visible strategies to overcome the challenges are either to carefully examine the gameplays or to refer to

any external assistance like game guides or cheats. The first strategy is termed experimental and the second is non-experimental. In regard to the avatar types, the employment of the continue system to replace the non-save system indicates that in the death system, the avatars are categorized into continuative avatars. Meanwhile, in the rebirth system, due to the presence of avatar selection to fit the game challenges, the avatars are classified into selective avatars. Both avatars, categorized under interpretive umbrella, suggest that avatar types have a link to the save system of the games from which communication navigation in the forms of strategies are executed.

Discussion, Conclusion, and Implication

That video game avatars are different from other digital avatars, since they are designed based on ludification, a process to evoke a playful identity through a set of ludic apparatus (Raessens, 2006; Frissen, Lammes, de Lange, de Mul, and Raessens, 2015), from which a ludic communication, a communication that addresses players as players (Domsch, 2017), signifies the strength of ACTION. The framework of communication specifically designed for video game avatars might explain (a) how a playful identity is established by avatars and their relations with other elements of communication in video games and (b) how ludic communication is expressed not only between players, but also from avatars to avatars, avatars to players, avatars to other players, and players to players. Moreover, ACTION is theoretically linkable to (1) Genette's theory of transtextual transcendence to reveal how video game avatars and their players exercise transtextuality, (2) diegesis theory to indicate the presence of ludic engagement in the interaction woven by game avatars and players, (3) Bateson's metacommunication to signify how video game avatars, though a limited means of communication, interact with other avatars in massively multiplayer online games (MMOG).

Game designers might also benefit from ACTION to determine the immersion level they plan to evoke from the interaction between the avatars and the players in regard to the game genres. Applying ACTION signifies video games as ludic spaces, from which video game avatars and players as ludic communication agents interact in a speech community through a means of specific communication laden with ludic values. The presence of ludic spaces, ludic communication and ludic values that contribute to the emergence of ludification, a playful identity, is user function dependent, from which avatars are classified.

On the other hand, ACTION exposes weaknesses on its primary focus on RPG. Other game genres like fighting, racing, sports games and other genres, which provide an avatar making feature are not considered. Thus, ACTION requires a revisit or modification when applied to analyze the mentioned genres. The problems those genres with avatar making features are the fact that employing these features indicates that the genres attempt to incorporate RPG elements. This kind of RPG element embedding triggers an impact on the game categorization as a hybrid product, from which the game focus becomes biased.

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