

The Hypermedia Elements that Improve the Users' Constructive Interactions

The new concept of hypermedia was born to integrate the idea of interactivity and multimedia, qualities that appear together in the communicational products of the digital era. Multimedia can include as many ways of expressing stories digitally as human senses are. The phenomenon of interactivity presents several types of participation both the psychological and the physiological levels. Each hypermedia creation includes a lot of multimedia expressions and types of interactivity that serve to generate different experiences. Thus, this paper describes what hypermedia elements are involved in the creative process of building an interactive multimedia project and how to improve the constructive interactions of the user through certain combinations of these expressive elements.

A model of analysis is proposed to study the different expressive elements involved in hypermedia projects and the most interacted by the users. This hypermedia analytical model differentiates the following categories: interface design, interactive narrative and game rules, emotional immersions (through the physical and the psychological aspects), ethical values and types of interactions. The understanding of each element serves to design the production of an effective hypermedia system. It serves to improve the constructive interaction, which allows the user to become a creator, between the system and the user through the combination of the user's preferred hypermedia aspect of the below categories.

First, a description of each category will be developed and then its most interacted elements will be described. These expressions are the hypermedia elements that engaged the majority of the adult children, who participated in a research based on continuous and attractive interactions with two hypermedia games. This research consisted in an observational and anthropological experiment where 20 children, between 12 and 15 years old, interacted with two videogames, *Antigrav*, a Playstation2 game, and *Sims2*, a PC game. They participated in this research during their after

school activities in the 5th Dimension project, an educational project in new technologies between U.S. and the European Union (Mora, 2005, p. 506-520).

The interface design is built by the software, hardware and expressive elements, icons, symbols and other forms of representation. The interface design works for improving the flow of communication between a human and a computer and, sometimes, between several users and their computers, in the case of a multiuser experience. The interface elements that resulted more interacted during the research project were the following:

- . • Some of the most interacted expressions in the *Antigrav* and *Sims2* games were the interfaces that reacted with original and creative sounds, while the teenagers were interacting with them. The players pointed out the special sound effects and the music as their favorite sounds specially when they indicated a significant change in the level or space, in the development of the actions or goals, in the time or in the characteristics of the avatar.
- . • The symbols that appeared in the interface also invited the users to interact with because they liked to discover what actions were behind the unknown object.
- . • The expressions that activated any clear function at the level of the software were very attractive to the users.
- . • The interface elements that required the combination of several corporeal actions to be activated were used very frequently.
- . • The player physical interactions that had an immediate correlation with the actions of the avatar were the most repeated. Moreover, the interfaces that allowed as many type of body movements to the player as possible were the most successful elements because it transformed them in some mimetic and coherent characters' movements. These mimetic movements were virtual movements directed by real movements and represented in the virtual world by certain preprogrammed physical laws or/and special powers.

- . • The interfaces of hardware that recognized as many body expressions and senses as possible and transfer them to the avatar, the player's virtual character, in the game world were very interacted. The children loved the Eye Toy because that reason, they loved to manage their character through their own real actions.
- . • The implication of several senses, the view, the ear and the touch in this case, helped the players to experience a more realistic experience because they increased the suspension of disbelief through the high immersion of their senses.
- . • If the interface is easy to learn through natural behaviors, in other words if the software and hardware serve to translate and satisfy the desires, necessities, expressions and expectations of the users, they will be loyal to that interface, the PS2 controller or the Eye Toy, the movement recognition device, in this research case.
- . • The items and virtual props with form of dynamic symbols and icons that activated immediately new secondary actions or special abilities of the avatar were very engaged by the teenagers. For example, the flying board or the icons for increasing the velocity or doing loops. Also the symbols and icons that served for the direct or indirect resolutions of the main plot or action were interacted a lot.
 - The objects and props with realistic forms were very attractive and interacted, specially those items that included unique loud and distinctive sounds. The interface elements that presented certain novelty in the combination of aesthetics also were very participatory; in other words, the graphics that presented a new technique or a special feature and appearance invites to interact with.
- . • The funny and humoristic expressions and tasks help to attract the attention and interest of the users.
- . • The futuristic backgrounds and architectures were chosen as some of the favorite type of graphics.
- . • The teenagers loved the natural-mimetic and the mimetic-infographic interfaces, which they interact through a natural movement and they can see their interactions represented in a natural way, in the form of a picture or a video of themselves, or in a infographic way, where a graphical representation of the character or the objects in the game follows their physical movements. This synchronization

between the player and the main agent, object or/and real or virtual character, builds a strong sense of agency, specially if it involves the combination of several human senses; then, the agency becomes immersive in a multisensorial and physical way. All that will help a lot to increase the psychological immersion in an adequate combination with the interactive narrative until build a complex sense of physical and psychological agencies. The interface in that case works as a funny mirror of the movements, decisions and actions of the players.

On the other hand, during the experiment were detected some interfacial elements that are very important not to use in a project since they disoriented and defocus the user from interacting with the game.

- The lack of recognition of the movement of the users by the interface and the lack of synchronization, between the biological instruments of communication of the user and the technologies of informational recognition in the interface, were two of them. The users did not like a rigid interface where they had to adapt to the technological possibilities, instead they liked when the technologies adapted to their natural communicative expressions. For example, they did not like to keep very straight their head and just move it a little each time so the Eye Toy interface could recognize the movements and move the avatar route while flying during the *Antigrav* game experience.

- . •They did not enjoy the excessive repetition of the same objects and the exact same actions to develop the main goal of the game.

- . •The users hated the elements that postponed or delayed the experience of playing the main game and that experimented the actions of the game. The reason why they did not like the tutorial was because it was separated from the game. Neither the liked cars as obstacles because they were too much and they delayed the development of new features and actions in the game.

- . •The use of push buttons and icons in the menu of selections, which do not clearly show or represent what function they activate, were chosen as the least interesting.

The interactive narrative aspects of the interactions with the game were analyzed based in the different narrative forms: characters, actions, spaces and times. The characters more interacted presented new physical, psychological and sociological characteristics. The adult children liked the avatar whom surprised them because their special forms, name, abilities and colors of their dress or skin. They like the humoristic and funny characters that make the avatar a kind of antihero or a hero with defects and difficulties so they looked realistic but entertainment at the same time. They liked characters that could offer as much action as possible based in his free will and who expressed clear and strong convictions. The beauty and the strength in the female avatars were very appreciated by the girls. They liked very realistic or very fantastic avatars.

The preferred physical aspects of the characters were the athletic and they chose the avatars who had a similar ethnic characteristic. The physical movements of the character were the most interacted avatar aspects, specially the ones that generate extraordinary actions, for example loops while flying in the air. The sociological preferred aspects were the verbal expressions of courage, recognition and pride, but over everything the adult children liked the practice of freedom and breaking the game constriction and any limits. The verbal or non-verbal expression of the avatar that expressed any dramatic situation served to built empathy with the player since he thinks the character is experimenting the same emotions that he is going through. They liked the obstacles or secondary actions were the avatar has to show his concentration, coordination and competence. In general terms, the intense emotions like frustration, joy and courage in the avatar were very enjoyed. The adult children loved the avatar who was able of expressing in the virtual world their own gestures, movements, emotions, ideas so they looked for constructive interactions as much as was possible. When these types of interactions were possible the identification, projection and immersion in the game through the character was achieved. All these reasons explain why the adult children love to build their own avatars through simple interfaces. These allow them to construct easily their avatar through choosing his physical, psychological and sociological characteristics.

The adult children loved dresses that do not look very different or extravagant with the clothes they are familiar with; however, the females liked the original dressed that made the

virtual bodies looked sexy. The fat and small avatars or with special physical characteristics

were no selected by the first time of playing the game; nevertheless, they were very remembered.

They enjoyed the avatars that had to develop a lot of easy and continuous actions to achieve the main goal of the game, so they can be very focus in the principal action while they are achieving small parts of it. This schema of avatar action achievement is very similar to the presented by the videogames *Mario Bros* or *Castlevania*, where you have to develop a bunch of small and immediate actions to develop the main one.

The following epigraphs describe the hypermedia narrative actions that were more interacted:

- . •The movement of hands and body and the combined movements like pirouettes and jumps were some of them.
- . •The objects that activate a secondary action and that serve for the faster development of the main goal, plot or action of the game were very interacted; especially the ones that allowed to create a magical or an extraordinary action.
- . •In addition, the actions that developed and immediate reaction and served to accelerate the development of the main plot or goal, or to generate more immediate secondary actions, were very interacted.
- . •The users loved to develop actions that were simple and easy to learn and with quick consequences while, at the same time, generated more complex system of tasks that increased the level of difficulty.
- . •The teenagers underlined that their favorite games included violent, sport and exploratory actions. The common denominator in all these type of games is the development of constant secondary actions with direct consequences in achieving a clear main goal: to survive, to win, to get an award, to save a world or a kingdom or to

free a princess. All these games build a strong agency through letting the player to have a clear sense of purpose and some clear motivations for taking their decisions and express them through creative interactions. In fact, their constant interactions constitute the main beats and motivations for the narrative development and evolution.

. •Other favorite actions are constituted by the actions that activate extraordinary and fantastic features. To experiment a very expressive multimedia output, after someone develops an interaction, is a great motivation to keep interest in playing and in generating more inputs.

. •Players like to get important awards to their difficult interactions and to get some prizes to their basic interactions. However, as a result of a good performance they like to go to another level or

to discover new aspects of the narrative. They preferred awards in forms of having access to new narrative elements that just getting some points. More than anything they love always to have new actions available once they have learned how to perform the actual ones.

. •The adult children liked to travel between different spaces where they could keep developing the game actions.

. •When the relationships between secondary actions and the main plot are no limited by a time period of time and there is a speed action available to activate; then, the players are more encourage to interact more frequently and to experiment new secondary actions.

. •However, the time constriction improves the concentration although does not encourage the experimentation of new actions neither the explorations of new parts of the spaces or special features of the characters. In certain way, the time constriction limits the constructive interactions of the players.

. •The special tricks, flying through circular rings, and the acrobatics were the actions more repeated during the adolescent experiences. These actions were activated or related with different special items, or props. The repetitive offer of this type of actions and objects helped the players to educate their intuitions and skills, so they developed

more complex and free interactions when facing the same tasks.

- . •The actions related with the avatar abilities, were highly evaluated by the teenagers, were the big jumps in combination with the fly. They activated a lot of the characters skills related with increasing his speed, the turbo, through ducking, through getting speed objects while extending their arms, through jumping in high heights and the freedom in the combination of movements.

The following epigraphs describe the hypermedia narrative spaces that were more interacted:

- . •The external and open spaces without architectonic limits for the player's movements and with realistic and spectacular aspects were very interacted by the users.

- . •The natural mimetic and the mimetic infographic images, that respond similar to the natural or fantastic physical laws but with some physical or/and logical properties, were very interacted by the teens. They loved to experiment all the physical possibilities of the virtual space while they tried to reproduce how good were the realistic laws and tried to discover and activate new unexpected unreal laws from the virtual environment.

- . •The objects, props that activated a sound during the interaction were the most taken by the players.

- . •The senses that were available and more used for driving the interactions with the game were the tactile, to get objects, avoid obstacles and go to different ways. That was followed by the visual sense, to recognize the ways, the objects and the responses of the avatar, and the ear, so they could understand how to play and what were the avatar's comments when they were interacting. As it was said before, the multisensorial combination in the design of the interface and in the interactive narrative forms, in this case the spatial objects, were the hypermedia elements that were more engaging to interact with.

- . •The objects that changed from being in focus to being out of focus were interacted a lot and also the spatial elements that were with a special illumination or reflections.

- . •During the menus of the games the interface buttons designed in 2D were more interacted than the 3D buttons or the devices of hardware in the 4D space. The main

reason was that the 2D buttons had a clear description of the narrative function that they will change or activate with a word inside their circular design.

.•The children loved to develop their interactions in the 4D, the real space, alone and in the presence of others, to synchronize the real physical movements with the virtual interactions and to use their different sense to play the game. That is why during the

.development of meaningful items or any other spatial aspect of the game a sound, an attractive visual design, a physical movement, a smell, or a taste should be associated to each aspect for a more complete multisensorial and deeper immersion. That would help to develop a better understanding, concentration and memory of the narrative experienced in the virtual world.

.•The change in the spatial perspective and constant movement kept the participants focus in the game actions.

.•There was more intense immersion when the space was maintained in focus.

.•The saturated and brightness colors were very attractive to the players. The warm colors were the more interacted and then the cold colors were interacted primarily following this sequence: red, yellow, green and blue. However, the blue and the purple were selected as the preferred colors during the interviews.

.•The objects that activated clear, specific or new functions were the most interacted. They worked as props for the development of the interactive actions. Because they serve to develop new secondary actions or plots this spatial elements become very meaningful and semiotic elements for the characters.

.•The absence of limits in the space invite to the exploration, however they engaged more the players if the spaces through suggesting new possibilities for developing new actions or for achieving new levels and special features for helping the character in the achievement of his main goal or plot. The players loved to find new places and new functions to improve their abilities and the abilities and goals of their avatar, in essence, they loved to practice their creativity and freedom into the virtual space.

.•The spaces that in the reality were very rare or difficult to transit in, for example rails, air and water were the favorites to explore while playing. The extraordinary spaces and the especial ways that could be transited in games are one of the most attractive

elements for children. On the other hand, they did not like so much the habitual spaces like regular buildings or freeways.

- . •The integration of the space of selection with the space of representation helps the player to understand and to configure the different feature of the game while they are inside the game mechanic and experimenting the pleasure of playing instead of going through menus that are unrelated to the game experience.

- . •The repetition of some spatial elements served the player not to feel lost and to recognize some new areas or smaller hidden spaces inside the virtual world of the game. However, the variety of places and objects and the increment of possibilities for constructing new combinations of objects and places, become the primary engaging spatial element.

.The following epigraphs describe the hypermedia narrative times that were more interacted during the experiment:

- . •The adolescents did not show a special preference for a special time although there was a preference to the present and the combination of times looks attractive to them, like a time machine backing to the past and forwarding to the future where the different times relates to each other.

- . •They liked to experience one thing each time, so they liked the linear and logical progression although they preferred to go through a moment just once. In other words, the adult children liked not to feel that they were going through the same situation twice. Consequently, they needed to have the ability of returning or changing any features of the menu in any moment, so they could modify the elements they liked to make the experience funnier or more intense.

- . •They liked to have option to flash-forward to their meaningful moments of the game or to skip the boring parts or the moments they already knew. Also the players liked to have the possibility of developing the actions and the avatar abilities as fast as possible. That is why it is important to make available to the players enough secondary actions in short periods of

.time; therefore, it helps the player immersion through the identification with the avatar's actions and the empathy with the main game's goal or plot.

. •They liked the repetition and loops of sound and musical moments that served to characterize a space, or changed it from one appearance to another. They also liked the repetition of the avatar's special or extraordinary abilities and actions.

. •They underlined the variety of music as soundtrack as one very attractive element in the played videogames. While playing Antigrav in the style mode, the majority of the players felt the time offered was too short to get the enough score and to keep interest in the game. The limitation of time was no attractive to the majority of the teenagers because there were players more skillful than others in different aspects of the game, so certain standards could generate too much frustration. The teenagers preferred the adequate time in the achievement of each goal or plot than the repetition of the exact limited time during each play.

The players' emotions were analyzed through the observance of their most repeated corporeal and verbal expressions during the interaction with the game and contrasted with what they commented after the game experience. The most repeated emotions were

. •The concentration, the passion, the empathy, the frustration, the fear, the embarrassment, the satisfaction, the enjoyment, the curiosity, the apathy and the confusion during the experience of the first menu interface. The two more attractive and repeated emotions were the concentration in 47 occasions, and the confusion, in 45. Normally, the embarrassment happened more often when the player did a mistake or did not pass an obstacle while playing in front of others.

. •The frustration, the happiness and enjoyment, the embarrassment, the satisfaction, the anger the enjoyment, the surprise, the concentration, the apathy, the confusion and the tiredness were the most repeated emotions during the experience of the game's interface. The concentration, which happen 129 times, the frustration in 103 occasions, and

the enjoyment, with 75 cases, were the most experienced emotions during the player's

experience.

. •In relationship with the interactions, the most frequent emotions were the constructive interactions and the selective or transformative interactions where the consequences were positive for the players. Moreover, the negative consequences in service to experiment an after all more intense positive emotion were also appreciated.

. •The more attractive emotions described by the adult children during the game were the happiness and the anger. Anger, in this context, was the energy and power for developing an action. The more attractive emotions they underlined, based on a list with the different human emotions, were the happiness, the freedom, the enjoyment, and the curiosity.

. •The least attractive emotions of the game were the frustration and the confusion, especially when they made mistakes and the goals or the reasons of the mistakes were no clear. The least attractive emotions, from the given list, were the confusion, the anger, the frustration, the embarrassment, and the sadness.

The ethic and the unscrupulous values that were more interacted by the teenagers, as they were expressed by their real and virtual actions with the interfaces, were:

. •The faith, or the physical and mental positive actions, the desperation and the impatience during the interactions with the menu's interface.

. •The faith and the perseverance were practiced in 61 occasions during the interactions with the interface of the main game. The anger and the incoherence were the most interacted unscrupulous values during the game's interface.

. •The ethic values, described during the interviews with the teenagers as the most favorite to practice during the game, were the enjoyment, the humor, the perseverance and the relaxation. The least pointed ethical values were the patience, the fraternal love, the justice and the integrity.

. •The most attractive unscrupulous while playing the game was the pride; on the other hand, the least interesting for the teenagers were the dishonesty, the envy, the egoism, the dishonesty and the critique.

As we have described before, the hypermedia language involves interface design, types of interactivity, narrative forms and emotions and ethical values. All these elements are integrated in certain ways and rules for creating hypermedia systems. Each system serves for different purposes: entertainment, if they are videogames, education, if they include some learning skills process, information, as different commercial web sites are, etc. All hypermedia systems are based in different values that serve, not only for their purposes, but for the expressions through the different hypermedia elements, specially for the rules that runs and configure the system. The hypermedia authors, writers, designers and programmers create the system of rules, which allows certain interactions or others. They develop an interactive narrative media context where the user can be able of experimenting interactivity in its different forms: selective, transformative and constructive (Moreno, 2002, p.96). The selective interactions basically allow the user to choose from different given options. The transformative interactions offered the user the possibility of changed some part inside the system without changing neither improving the system of interactions available or new rules that could drive the hypermedia system. All these types of interactions serve for the user to have choices, and the more creative the choices are possible the more constructive the interaction is. When the users do constructive interactions then they became the coauthors of the hypermedia system creating their own paths of the experience, objects, actions, character characteristics and even the duration of the experience. Basically, the users create their own narrative experience interacting with the different elements that the hypermedia designers make available through the programmed system. In this sense they express their own values and likes with the creative hypermedia tools the hypermedia designers offer; in fact, they become designers of new possibilities of interactivity if the system is an open source for changing the certain rules of the system. These relationships between users and authors, players and designers or readers and authors dilute the limits of the creation allowing to exchange the communicational functions between them. The more constructive interactions the system allows the more open source the hypermedia

system is and the more the roles of reader/writer, player/game designer and user/programmer are exchange through a creative interactive multimedia communication. Because the complexity of the relationships and the overlapping layers of the communicational and creative functions that converge in the hypermedia system, an analysis of the connections between the types of interactions, the different interactive narrative forms, the emotions and the ethical and unscrupulous values is necessary.

Consequently, returning to the analysis of the experimental research data, the most attractive type of interactions in relationship with the narrative characters were the ability of the characters of developing as much movements as possible and the possibility of free combination of movements. In addition emergent actions and new generation of movements were created through the transformative interactions; indeed, when the transformative interactions are enough complex and allows the development of unexpected outputs they became in certain way constructive interactions.

The most attractive type of interactions in relationship with the narrative actions, during the introductory menus, were the selective interactions because they were faster and easier for the players to develop; therefore, they could play the game as soon as possible. The first menu should give basic information, through a clear interface, about the narrative possibilities and experiences of the game, the different constrictions and rules, the access and the activation of the different available functions. Once the player choose the type of game and the arc of narrative actions, that the game designers made available and possible, then, the adolescent demonstrated to enjoy more the transformative interactions. During the game, the transformative interactions allowed him to develop some skills, abilities and to experiment new actions, in combination with the ones he already have learned.

The most attractive type of interactions in relationship with the narrative spaces, during the configuration of the game mechanics in the starting menus, were selective interaction more than any other type. On the other hand, the transformative interactions with the spatial game were the most repeated during the game experience and the space of representation.

The most attractive type of interactions in relationship with the narrative times was the constructive interaction because the players could extend or reduce the time of the game based on their desires and play necessities.

The most attractive type of interactions in relationships with the emotions was the constructive interaction, or any other type, selective or transformative, always it served to satisfy their expectations and likes. In other words, the game should present the interactive narrative aspects the audience normally points out as the most interesting, through their interactions and through their opinions. The teenagers liked to have several ways to overcome the same obstacle so they could base the constructive interactions on their own system of values as well as to get the emotions they feel more appropriate in each situation. The concentration, the enjoyment and the surprise emotions were born from the immediate ability of the system of adapting to the player spontaneous decisions, and interactions to resolve a conflict or obstacle in the game. They felt especially concentrated and enjoyed when they overcome a main action. If there were too many constrictions and the difficulty to overcome an obstacle, or resolve a secondary action, was too high in the game; then, the players had the tendency to feel negative emotions so frequent that they lost the interest to keep playing. Normally, that happens when the players are not able of resolving a secondary actions after trying their best in different ways, they always feel the emotions of frustration and desperation that breaks the sensation of flow.

The most attractive type of interactions in relationship with the ethical or unscrupulous values integrated in the rules were the repetition of constructive interactions. They were produced through offering as much type of possibilities as possible to participate in the activation of positive or negative actions during the game experience. The adult children are able of learning some positive consequences of interacting with spiritual values when the constrictions offer new possibilities: new actions, character characteristics, new access to different spaces and times. On the other hand, they learn about the negative consequences of interacting with the unscrupulous values when the game constrictions allow freely these kinds of interactions in the form of some realistic consequences without repressing them, but

also without offering extra narrative features or points. The ideal is to encourage the children to interact with the hypermedia elements that bring positive and negative consequences based on believable rules, so they can learn the laws of the virtual world and the cause and effect consequences of their actions in it. In fact, they should be able to negotiate with other players to change part of the rules, so they can experience the consequences of their own decisions in a more ethical and philosophical levels. In brief, the contextual rules of the game should allow as much as different types of interactions as possible while they are clear, in the sense of each interaction has a positive or negative consequence in the development of the game. Basically, positive interactions should activate more attractive hypermedia elements, like the cited interface and narrative elements cited below, while negative interactions should be repetitive and boring. Consequently, the most important part is that the players should be able of creating their own rules so they can experiment higher level decisions and practice their own criteria about what is positive and negative in the social and narrative virtual world, always keeping some basic contextual rules that will define a clear and an original context to start from.

The ideal next generation of entertainment directors would be those who will be able of creating constructive and participatory creative virtual contexts, taking all the engaging and attractive hypermedia elements described by the users/players/co-creators into account. That hypermedia context will be then the creative interactive hyperspace where the classic "spectator" will become also the coauthor of the entertainment experience through his constructive interactions.

In addition, the educational and entertainment videogames should motivate the constant evolution of the actions, always offering new and several tasks to develop and resolve the same problem through different ways. The secondary actions should improve in their complexity accordingly with the different skills of the players; then, they would reinforce the learning process of the adult children, and the rewards should be more a more related with the main goal of the game. Furthermore, the secondary actions should invite the player to feel a great variety of emotions, like in the real world, so the players can experience an emotional immersion during the game's experience. If

the hypermedia game would include positive or desired emotions and negative, through the consequences of the constructive interactions with the different narrative elements of the game, it would build an emotional realistic immersion based in the player's free will. On the other hand, if the system would include more positive emotions and consequences than negative the system would be more fantastic, unrealistic, and more constrained in the type of constructive interactions available to experiment by the player; however, the players would keep the interest since the positive emotions would be a resource of pleasure. Nevertheless, the hypermedia system that would include more negative emotions than positive would constrain the game context to feel a punishment or experimental experience, where the players would be able of developing new skills, tolerate some negative emotions and even they would become more familiar with negative than the positive emotions. Moreover, the different combinations and balances that could be built following these basic consequences would be the sources for producing games that would look for different purposes: just ethical education, educational entertainment, violent entertainment, therapeutic entertainment, mixed, etc. It would be always necessary to keep some tension between the spiritual principles or ethical values and the unscrupulous values since the consequences of the unscrupulous values serve as the energetic motivations to encourage the players to improve their skills for overcoming the main and secondary actions and obstacles of the game. These negative principles, and their negative emotional consequences, would generate mistakes that would bring energy to the players; so they could use it to learn and to apply in the right and coherent positive/s values that would be the key to pass the obstacle or secondary action. All these reasons are the why each game producer will play with these combinations in order to achieve his objectives: selling, educate, entertain, moralize, criticize, ...

All these cited hypermedia elements serve for creating context for building interactions that attract players interested in these different types of contents. In synthesis, the spiritual or ethical values and unscrupulous values in videogames will be communicated and generated by the producers or creators of the game narrative context and by the co-authors/players if the different types and narrative forms

available for the player's interactions are constructive and the system are open sources. In other words the game's rules or constrains and the interactive narrative architectures available in the hypermedia system will help to constitute the final messages and experiences that can be communicated and lived by the players. They will constitute the virtual interpersonal and social laws, the context for building different interactive narratives in the sense of player experiences. Nowadays, this described situation is very clear in the case of the Massive Multiplayer On-line Games (MMOG) like *Second-Life* or *World of Warcraft*. In conclusion, the improvement, the realization, the tension, the coordination and the final equilibrium between player's intellectual, physical, emotional and the spiritual or the unscrupulous experiences are based on the right combination of attractive hypermedia elements. Those are the basic elements that in together in different possible combinations will generate the interest for keep interacting in a game; in fact, they are the clues to become an expert game designer/player or co-author. These levels of expertise will be improved and developed in different and new genres of games, with different contents, like sport competitions, fights, explorations, collaborations, etc, and in different relationships, between human and computer or between humans through an hypermedia system displayed by computers.

All these guidelines are means to serve the improvement of the sense of agency and the immersion of the players in the different human physical, psychological, emotional and spiritual levels and ways of expressions. Following these patterns, the players will be keeping the sensation of flow during all the game and interactive narrative experience while they will continue to learn new abilities. The increment of complexity in the actions, through the evolution of the game goals or subplots, is always good to improve the concentration and the immersion of the players into the actions and other narrative contents within the game. The best approach for building interesting and engaging hypermedia creations, interactive multimedia products, seems to be building clear game rules with constant interactive and constructive actions that will be growing in complexity and in expressivity through the player positive interactions.

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(for more info see Jorge Mora's whole dissertation or email the researcher)

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