FUTURE OF NEW MEDIA, TOWARDS THE ULTIMATE MEDIUM: PRESENCE, IMMERSION and MMORPGs

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Abstract
Revolutionary developments in communication and information technologies, coupled with the transition from traditional media into new media, create new mediums of the information age which are capable of offering interactive user participation in communication processes. Frontiers of these new mediums are virtual reality technologies which can be considered as the ultimate form of interaction between humans and machines, and sometimes even considered as the first step towards the ultimate communication medium. The most important characteristics that differentiate virtual environments from other types of media are presence and immersion.

This study focuses on the dimensions of presence, the determinants of immersion and the degree of presence experienced in different media types. Special emphasis is given to Massive Multiplayer Online Role Playing Games which are a new phenomenon in electronic game industry that have recently drawn the attention of media studies since they are actually virtual communities capable of creating a stronger sense of presence. This study also aims to emphasize the importance of MMORPGs as a communication medium, claiming that they are strong candidates for being the ultimate medium of information age.

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1. NEW MEDIA: CHARACTERISTICS

The concept of new media emerged as a result of the technological developments in traditional media such as video, CD, DVD, mobile networks, Internet, wireless systems, teletext and online databases. These concepts appeared around 1980's and changed the meaning of the word: communication. Among these developments, Internet is the one that affects the revolution of the media most. The arrival of Internet changed the way people communicate with each other

and altered the methods people use to access data, enabling everyone around the world to communicate with each other (Whittaker, 2004). Although the invention of computers changed the way people work with data and the way they process knowledge, the problem of sharing resources and data transfer to remote places is solved with worldwide usage of Internet. The invention of the transistor coupled with the developments in communication and information technologies created a new notion: Information Age. This new order emphasizes the importance of knowledge industry, qualified workers, continuity of education and knowledge production. New media is the medium of this new order, which brings the society to a new level, changing our culture, economy, social life and politics.

The concept of new media is explained by Rogers (1998) with three characteristics. These are interactivity, demassification and asynchronousity. Interactivity emphasizes the importance of being interactive. New media does not transfer homogenous messages to large groups of people; demassification is the transfer of unique and personalized messages to every user in a heterogeneous mass. Asynchronousity states that sending and receiving messages in new media do not need to be synchronous processes. Anyone can transfer any knowledge anytime; and the response will likely be transferred when the receiver desires it to be. According to Manovich (2002), new media investigates the cultural objects that appear with developments of communication and information technologies. Manovich's new media is composed of digital data that are controlled by different software programs which mixes traditional and new digital methods for data representation, usage and access. Older algorithms, which were executed by humans, are now processed more quickly with the help of computers. So, according to Manovich, new media is a post-media or meta-media.

One of the most comprehensive works regarding the characteristics of new media is Lister's classification. According to Lister (2003), new media has five characteristic attributes. These are digitality, interactivity, hypertextuality, dispersion and virtuality. Lister's new media is sometimes referred as 'digital media' or 'new digital media'. Analog media defines data as physical objects; digital media defines data with binary numbers, consisting of 1's and 0's. The second important attribute of new media is interactivity. Being interactive signifies the users' ability to directly intervene in and change the content of the new media and to use media according to their own goals. Another important characteristic of new media is hypertextuality. Hypertext, with its flexible structure and infinite possibilities of information gathering, sharing and linking, is the beginning of a transition from classic text to digital virtual text (Zhang, 1998). Another important term that appeared with hypertext is hypermedia. Hypermedia gathers different types of media such as picture, sound, video and text together, joining these different types with relations to each other (Manovich, 2001). The fourth characteristic of new media in Lister's definition is dispersal. Traditional media is characterized by standardization of content, distribution and production processes. Dispersal is the decentralization that created a non-uniform media that sends non-limited number of messages to a heterogeneous mass. Lister's final characteristic of new media is virtuality, the ability of new media to technologically simulate aspects of everyday experience. This brings a new concept known as virtual reality, which is an interactive world simulation created by 3D computer technologies. The reality of virtual reality is often related with immersion and presence, which can be considered as the new characteristics for the future media.

2. TOWARDS THE FUTURE: PRESENCE AND IMMERSION

According to some researchers, reading a book or watching a movie can also considered a virtual reality activity, since the user finds himself in a virtual world that he considers real. According to Heim (1993), new media technologies remove the hierarchical structure of the real world from our minds, offering unrestricted freedom and enabling people around the world to get connected with each other. With highly interactive technologies like virtual reality, the restriction of time, space and social status in human communication disappear.

It is often discussed whether virtual reality is the ultimate medium or not. Krueger (1991) defined virtual reality as the ultimate form of the interaction between humans and machines and Rheingold (1991) described virtual reality as the first medium that does not narrow the human spirit. According to Biocca (1995), the vision of ultimate medium continues to race ahead of VR technology and the prophetic search for the ultimate medium is more than just "hype", it is a desire. But the dominant paradigm for virtual reality now is not hardware but software. Since software based approaches seem to have more success by mentally and emotionally engaging people (Castranova, 2005), these virtual environments can be considered as the first step towards an ultimate medium.

Virtual reality, which is a communication medium like telephone or television, is typically defined in terms of a particular collection of technological hardware. According to Steuer (1992), these definitions fail to provide any insight into the processes or effects of using these systems and the term VR must be defined in terms of presence. By this way, VR can be defined in terms of human experience rather than technological hardware. Presence, which is the sense of being in an environment, is an important characteristic that differentiates VR from other types of media. The sense of being there, which can also be experienced when reading a book or watching a movie, is amplified in virtual environments by using 3D graphics, 3D sound, touch and force feedback, etc (Ryan, 2001). Communication, which is usually described in terms of a sender and receiver, can also be better described in terms of presence since it focuses on the relationship between individuals and the way people interact with the mediated environment (Steuer, 1992).

According to Heeter (1992), presence has three dimensions. These are personal presence, social presence and environmental presence. Personal presence aims to create artificial sensory information similar to the stimuli human senses detect and interpret in the real world. This is achieved by using special hardware such as head-mounted displays and position trackers. Social presence represents the user's ability to communicate interactively with other characters within the virtual world. Environmental presence represents the user's ability to change the virtual world by his actions. If objects of the virtual world do not react to user's actions, than the virtual environment does not constitute a realistic simulation.

According to Steuer (1992), presence has two dimensions. The first is vividness, which is the representational richness of a mediated environment. According to McLuhan (1989), media can be classified into two categories: hot media and cold media. Hot media transfers great amount of data to the users, which decreases their participation in communication processes but cold media transfers little amounts of knowledge which increases their participation. A highly vivid media can be considered as a hot medium according to McLuhan's classification but new media can be considered as a combination of both hot and cold media since great amounts of data are transferred to users, supported by interactive user participation in communication processes.

The second dimension of presence is interactivity, which defines the user's ability to modify the form and content of a mediated environment.

Immersion is a VR system's ability to deliver a surrounding environment, capable of shutting down the sensations from the real world (Slater & Wilbur, 1997). Although people can also get immersed when reading a book or watching a movie, immersion in virtual reality plunges into a different dimension in computer games. For some computer game players, immersion means integrating the virtual play fully into their online and offline lives (McGonigal, 2003). According to Ermi & Mäyrä (2005), immersion in computer games has three dimensions. Sensory immersion is related with audiovisual properties of the virtual world, challenge-based immersion is related with mental skills such as strategic thinking or logical problem solving, and imaginative immersion is related with the storyline and virtual characters.

3. MASSIVE MULTIPLAYER ONLINE ROLE PLAYING GAMES

Massively multiplayer online role-playing games, which are a new phenomenon in electronic game industry, are three-dimensional virtual worlds with integrated multiplayer capabilities. These virtual worlds, which are actually virtual communities, offer a mentally immersing virtual environment that is built upon social interaction. The artificial worlds have their own structure, culture, ethos, economy and politics.

Although we heard of MMORPG's frequently in the recent years, multiplayer games are not really a new phenomenon. There were multiplayer worlds since 1970's, but it took a long time before games and multiplayer environments attracted academic professional's attention (Ducheneaut, 2004). The ancestors of MMORPG's are MUD's. MUD's are text based fantasy worlds that were very popular before the introduction of World Wide Web. Over time, MUDs evolved into standalone RPGs and later multiplayer versions of these games appeared. Internet based videogames have been available on PCs for several years and recently multiplayer capabilities have also been added to game consoles, such as Sony Playstation and Microsoft XBox.

In order to understand MMORPG's, we must first understand the importance of RPG's in the computer game industry. A computer game is a contest with rules to determine a winner and computer games are classified according to their genres. Role Playing Games provide interesting interactivity and openness opportunities that are non-existent in other genres. The frequency of player's interactions with the virtual world is higher and the range of different interactions offered by the game is broader than other genres (Bostan, 2005).

The most interesting feature of RPG's is the character creation process, which offers the player the chance to play a customized character in the RPG world. Players choose their own background, race, physical appearance, gender, age and skills to create a unique personality in the virtual community. Most players see their RPG characters as extensions or representatives of their real selves (Kelly, 2004). This definition reminds of McLuhan's famous book 'Global Village'. According to McLuhan (2002), media are the extensions of man. From this point of view, a book is an extension of human eye and electronic circuits are extensions of human nervous system. Thus, a computer game is an extension of human senses that becomes an extension of the self as a MMORPG. The process of creating a character is like creating a second self and this view is quite different from how players of other genres see their characters. The created character continues to develop and progress throughout the game and this is the main

reason why people play MMORPG's for months and years to the point of addiction. The most severe example of addiction is the death of Kim Kyung-Jae. This 24-year-old South Korean man died in an Internet cafe after playing virtually non-stop a MMORPG named Lineage for 86 hours.

MMORPGs consist of thousands of people interacting within the same virtual environment and they provide a high level of social presence that increases the user's sense of being there. In order to increase social interactions, game designers are trying to build social environments, even forcing the players to interact with each other (Wadley,2003). This is achieved by tying some of game's activities to particular locations or by designing quests too difficult for a single player to achieve. Other media, like TV or radio, do not provide a social environment where users share their experiences. Thousands of people may be watching the same TV program but since they can not communicate or interact with each other, they do not form a social community. MMORPGs provide a gaming experience analogous to real life, where players share, learn and live together with other people. Guilds, which are a necessary part of the MMORPG social system, consist of a group of players that share their resources and buildings. The social system is built on a rank system, where higher ranked players manage the guild and support novice players.

MMORPGs provide thousands of objects within the game that user can interact with and users can change the virtual world by their decisions and actions, providing a higher level of environmental presence which enhances user's virtual experience. By focusing on environmental and social presence, MMORPGs aim to provide a mentally immersing virtual environment. Traditional media such as radio or television can not provide any type of presence mentioned above. New media technologies such as interactive TV, blogs, web messengers, etc. also fail to provide any physical, social and environmental presence.

4. CONCLUSION

New media, which we try to describe by some concepts and characteristics, has a revolutionary effect on our everyday life. New media had been described my researchers with different classifications having similar characteristics but presence and immersion are two characteristics that shape the future of communication. Information age has become the gaming age (Boellstorf, 2006) and MMORPG players are already building global villages all around the world. As McLuhan (2002) said, the visible world is no longer a reality and the unseen world is no longer a dream.

When we consider presence and immersion as key features of media, it seems that massively multiplayer online role-playing games are an interesting research area for communication studies. MMORPGs are the newest and hottest media that supports interactive user participation in communication processes by creating a stronger sense of presence. They enable thousands of people from all around the world to interact with each other in a virtual simulation. These virtual communities even have an economy of their own. MMORPG players often claim to own the items they found in the virtual world and they trade their items in auction sites like e-bay (MacInnes, 2004). This creates exchange rates for the currency in the virtual worlds and the currencies of the real world. The value of the currency of Everquest, a MMORPG that has the 77th largest economy in the real world, even exceeds the value of Japanese Yen and Italian Lira (Castranova,2005). All these economical data prove that

MMORPGs are not virtual communities anymore and are evolving into real communities, if they are not already real communities at all.

From this point of view, MMORPGs are the frontiers of interactivity and if immersive hardware can be used in MMORPGs, then the ultimate medium will be created. This prefect medium, if achieved, will be similar to the Cyberspace of Gibson (1994) and will probably change our lives completely. Director Mamoru Oshii's science fiction movie Avalon perfectly describes what the world will be if immersive and massively multiplayer games are introduced to our lives. Future communication research on immersive virtual environments shall also provide an opportunity to identify the characteristics of the ultimate medium and shall give better insights on the nature of presence and immersion in new media.

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