

## VIDEO GAME CULTURE AND INTERACTIVITY

An exploration of digital interactive media through  
a metaphorical approach to video game culture



### ■ Abstract

This research is focused on defining interaction within the context of digital media and creating a multi cultural definition of interactivity. The concept of multi digital culture and a definition of interaction in digital media have often been overlooked by other researchers and this has caused the emergence of many different notions on this issue. As a result of these varied notions of the concept, public confusion has arisen regarding interactivity. The main purpose of this research is to find a suitable multi definition of interaction through examining local digital culture. In order to analogise multi digital culture, the video game culture is employed as a metaphor to interpret local digital culture. The reason for this is that a specific national culture can be easily identified within the video game culture.

Four countries, South Korea, Japan, the U.S. and the UK have been chosen for comparison purposes. Case study, questionnaire and publicly accessible video game related data, such as, video game charts, are used for formalising and analysing unique local digital culture.

The Heyri POP UP IMAGE Festival, S. Korea, was also used as a pilot study, with some of the above research methods being employed to analyse South Korean digital culture. In relation to western cases, interview and questionnaire were primarily used. The data from the case countries was carefully compared and analysed and then it became the basis of a theory of multi definition of interaction in digital media.

The case study employed the cultural metaphor for this research and in addition video game culture related questionnaires and interviews with experts of interactive art genre, regarding new notions of digital interaction were utilised. The survey was conducted simultaneously in the four different cultural case nations of this research. Twenty respondents from each case nation participated in the survey, in order to investigate firstly, the existence of 'local digital culture' and secondly, the trends and phenomena of 'digital culture' in these four different 'local digital cultural areas'. In terms of interviews with experts of the interactive art genre, these were focused on

obtaining their understanding of contemporary digital culture in their research.

Using gathered data from the observation of local digital culture, the basic theory of interaction and the terminology of interaction are reformed. Localised definitions of interaction on digital media, control based interaction and communication based interaction are presented, in order to identify a 'locality' in terms of various contemporary digital cultures. As a result of analysing digital culture, new definitions of 'multi definition of digital interaction' were formulated. As mentioned above, 'control' and 'communication' based interaction were initiated, based on 'user to media' relationships. Based on the degree of physical interaction, 'liminal' and 'transitive' interactions were initiated. Less physical digital interaction is named 'liminal' interaction and more physical digital interaction is named 'transitive' interaction. These new definitions of interaction were applied to the real world examples of uses of digital interaction, such as, digital interactive installation artworks and video games.

The newly defined meaning of digital interaction can be applied to analysing digital interactive installation artworks and possibly indicate their future development and the prospects of future electronic games. Three leading digital interactive artists were selected for this analysis and their works were studied in terms of the implementation of 'multi definition of digital interaction'. Throughout these processes, the meaning of 'communication' in digital interactive media was emphasised. Many of the selected artists' digital installations were focused on 'communication' or 'interaction between each user through digital media', rather than the concept of 'control' in digital interaction, otherwise termed, 'communication with digital media'. In their artworks, interaction between each audience was digitally engaged within the physical interactive environment which was created by the digital media. Both the audience's action and all the reaction throughout the interaction between the audiences, triggered the digital media's reaction. This audience-audience-media interaction is the key to understanding the concept of 'communication' in physical digital media and it is the main interactive concept upon which the selected digital interactive installation artists for this research and many other artists from similar fields, are concentrating their efforts.

In the case of the video game, a similar trend was noticed to that of digital interactive installations. Based on this research's 'multi definition of digital interaction', the video game has evolved from the early stage of being conventional game, which was focused on control based interaction, to the on-line game which was focused on communication based interaction, to physical interactive games, such as, Nintendo Wii, which are focused on more physical interaction and finally, the ubiquitous interactive game, which is mainly concentrated on the concept of 'communication' in physical digital interaction. It is possible that this evolution of the video game concept of interaction is comparable to the progress

of digital interactive artworks. This view is based on the fact that both genres show evidence that they are developing in the direction of the concept of 'communication', in terms of physical digital interaction.

The important emphasis of this research's results is 'locality' and 'communication' in physical digital interaction. The existence of different digital culture trends, which were assessed by the 'multi definition of digital interaction', can explain the concept of 'locality' in digital interaction. This meaning of 'locality' may assist in understanding contemporary digital culture and can reduce possible misunderstanding as regards 'local' digital culture. In the application of the concept of digital interaction to the field of either artworks or video games, it is possible to form the opinion that an innovative concept of physical digital interaction is 'communication' within this context. This concept and its applications can improve the potential of both digital interactive culture and technology.

#### 우 탁



- 2007년 University of Dundee, Ph.D in Electronic Imaging
- 2005년~2007년 University of Dundee, School of Television and imaging Dundee, UK, Teaching Fellow
- 2007년~현재 KI 엔터테인먼트공학연구소 선임연구원