

MOHOLY-NAGY UNIVERSITY OF ART AND DESIGN  
DOCTORAL SCHOOL  
DESIGN THEORETICS

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OPPORTUNITIES IN VIRTUAL REALITY  
AS IN MEDIUM

VIRTUAL REALITY FROM THE  
ASPECT OF A DESIGNER

DLA DISSERTATION

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Budapest

2012

Activities presented in the virtual reality and/or performed in a virtual environment can facilitate designer's work. Dissertation prospects for those areas where it is worth to improve our digital skills, and how this knowledge can be effectively maintained. The theoretical approach focuses on claims established by the virtual environment, criteria requested from users and the importance of the documentation of the knowledge. The practicable interpretation presents the promising techniques from the aspect of a designer such as photogrammetry and videogrammetry, the areas of application of digital globes, benefits of 3D print in case of the direct production, and the use of morphogenesis. Mentioning the author's educational activities on Moholy-Nagy University of Art and Design refers to the predictable opportunities in the education through a research dealing with three-dimensional contents. At the end through the author's works virtual solutions will be discussed that can be used in museology, architecture and product visualisation.

## 1.6. Theses

### 1. [Virtual reality: conglomeration and interpretation]

Virtual reality is the melting-pot of the conventional media, and thanks for its summing effect it can achieve its independency.

By means of virtual reality, the graphic, the film, the photo, the literary text and many other media can be presented at the same time. The duration, context and the way of their appearance is determined by the virtual system, so their interpretation depends on what role they play in the system itself. Consequently, the experience of virtual reality is derived from the dynamic interaction between its components and with the viewer.

### 2. [Quality has an impact on interpretation]

Communicational advantages and disadvantages coming from the quality of the virtual environment and issues may distort the conclusions of the viewer.

The benefit of the interactive contents is that the gained information reaches the receiver through a systematized learning process, although this requires the user's intention and capacity to explore the information. However the inconveniences of this exploration and the blind-spots can alter the information, in some cases the primarily designed positive experience could turn out negative.

### 3. [Culture and platform]

The character of the virtual culture depends on the digital platform we use.

Consumption of the virtual contents depends on the character of our electronic devices, hence it is adjusted to the guidelines of these tools as well. Since these are purpose-tools their usage can be differentiated by space, time and situation. That is why people who are living a certain kind of lifestyle mostly own just the typical segment of these devices. These tools determine the accessibility and the entitlement for generating and also receiving the digital content, so it can be stated, that they have an effect on our digital culture. Therefore the exploration of special abilities of these tools is an important condition in understanding certain cultural characters also.

#### 4. [Opportunity and responsibility]

Digital proficiency requires authorization and responsibility.

The user's capability to intervene grows by the level of skill. During the step-by-step developing the user is becoming more and more responsible. Problem may raise its head while using the new digital software and hardware when this progress is advancing by bigger steps than it is beneficial, therefore skipping some very important stages of the development. This problem can be increased if the field of use - like show business - lacks the necessary moral control or provides anonymity that can be used for rights abuse. However the stylistic and moral expectancy of the academic and educational sphere is valid in case of the use of the digital applications too. The only way to efficiently depict the higher quality content is to take responsibility for the issue itself.

#### 5. [Digital economics]

Creating virtual content is a time-consuming task. In order to be productive it is practical to examine the attributes of existing methods and examples. The responsible creator ensures its possibility by a proper way of documentation and working method.

The virtual content can be extremely manifold. In the interest of productivity it is worth to grasp all the arising opportunities. From the aspect of the designer it means it is essential to document everything regarding to the existing virtual objects and applications, and to make them available and suitable for a subsequent analysis and usage. The units which were made this way can be handled as sample applications. Through these applications we can present how a virtual model or system can be created effectively in the fields of academic research and art, additionally they can play an important role in the next development project as a donor. This way the idea of sustainable development can be applied in the digital field too, since the data will be available for multipurpose reuse.

#### 6. [Stable bases]

The comprehensive general knowledge can help to stay oriented in the mass of digital information, and through the interconnections ensures a stable base of knowledge.

It is difficult to retain our knowledge up-to-date, therefore many user tend to give up the freshness of his or her ideas. The history of art, the sociological knowledge and the practice of creative arts together can compose a solid base to build up the digital knowledge.

## 7. [Learning technique]

Digital training requires extensive knowledge. To effectively maintain the knowledge it is advised to use special learning and archiving techniques, because the feedback may be needed many years later.

In accordance with the previous thesis the maintenance of the virtual environment-related knowledge happens with the use of many media application. Organizing all the motion pictures, photos or texts is inevitable to facilitate their fast and easy recall. The structure need to be constructed to make it possible to answer any theoretic or practical question within hours even the knowledge was picked up over several months.