

REVIEW

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or the dissertation.

Impact of 3D Technology on the Viewer's Perception of Audiovisual Forms

by Despot Sebishki

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Significance of the Research Subject for the Academic and Applied Science Fields

The topic *Impact of 3D Technology on the Viewer's Perception of Audiovisual Forms* definitely is significant in this day and age and is of interest to everyone involved with cinema. The dissertation amounts to 148 pages. It encompasses an introduction, five chapters, a conclusion, contributions, and a reference list. The introduction draws attention to the significance of the research topic, which "is important for academic researchers, as well as for practitioners, that is, for the producers of 3D products, for the cinemas managers, for the distributors of 3D production, and in general, for the artists. And most importantly, it is useful consumers – we, as viewers, need to be aware of both the merits and the essential shortcomings (and even dangers) of 3D technology." (p. 4)

Precisely formulated goals and objectives of the dissertation:

The introduction includes three sections: the purpose of the study; the subject and object of the study, as well as the tasks and methodology of the doctoral thesis.

The main purpose of the study is to clarify and show "how 3D films, virtual reality and 3D holograms affect the viewer". (p. 5)

The tasks through which the goal will be achieved are condensed to analysis of the following:

“1. Historical Overview - Introducing 3D computer graphics in movies.

2. Tracing the theory of the 3D film and the holographic film

3 The impact of the 3D film on the human psyche

4. Distinctions between 3D, 4D, 5D, 7D and 9D cinema; the impact of 3D, 4D, 5D, 7D and 9D cinema over the years worldwide

5. Review of challenges and opportunities the future of 3D film is facing.”

The author has also set himself the ambitious task of making large-scale research of holograms in cinema in order to achieve maximum audience satisfaction.

The subject and object of the study are not precisely formulated, and the reader might get lost in the excessive explanations.

Correspondence between the research methodology chosen and the research methods and set purpose and tasks of the dissertation.

According to the author, the main methods he uses in the doctoral paper are: "comparative analysis, content analysis, in-depth analysis of the impact of 3D technology in the perception of audiovisual forms by the viewer." (p. 11)

All this means that the methodology of the doctoral student is reduced to the use of analysis and research as methods for developing the dissertation, which, without relevant conclusions, would turn his paper into merely a different interpretation of available research papers. And here comes the logical question: How exactly does the author imagine that he will achieve maximum audience satisfaction only by analyzing certain processes. It is obvious that he needs to enrich his methodology in order to find a solution to his main research issue, namely achieving audience satisfaction.

The introduction is followed by the main chapters of the doctoral thesis.

In the first chapter, the dissertation takes us back to the history of 3D film. It begins with a historical overview that traces the development of the hologram over time. Currently, it is present in the feature film only as a visual effect. This chapter consists of three subsections. Some of these are duplicated which makes the text confusing for the reader. On page 12 we have a breakdown of subsection: I.1. THE HOLOGRAM. HISTORICAL OVERVIEW. On page 28, I.1, which appears again. THE HOLOGRAM. HISTORICAL OVERVIEW. On page 32, the new subsection follows:

I.2. Hologram Operation Principle, and suddenly I.2 appears on page 48. INTRODUCING 3D COMPUTER GRAPHICS IN MOVIES. HISTORICAL OVERVIEW. A brand-new title with the same digits. Obviously, when we go back to the content, we see that the author has written the wrong number. It is advisable to review the work in advance and correct the misspellings and mistakes before officially submitting the paper. In addition to the historical overview, this chapter describes the ways of phasing out the two-dimensional image and transforming it into a 3D image. Additionally, there is no explanation of the reason for creating the volumetric cinema.

The second chapter, titled: *Theory of the 3D Film and Holographic Film*, is composed of six sections. Here the author clarifies the definition of "cinema", which he uses in his dissertation: "cinema includes works with a moving image that have a narrative structure (regardless of whether this narrative is made up of factually existing rather than fictional material)". This is a common definition, which means that "cinema"

can be understood as 3D documentaries, short 3D films, as well as animations. (p. 52)

This chapter includes topics such as: virtual reality, computer-generated images, and three-dimensional stereoscopic film.

The main point here is that the focus is on the technical side of the problem, not on the viewers' perceptions, which is the initial idea is and part of the topic of the dissertation.

With the title of Chapter Three, we get as close as possible to the essence of the dissertation. It is reads: *How 3D Film Affects the Viewer* and the research in this area is not encouraging.

"Several Japanese companies warn that watching 3D movies can be harmful to the health of viewers. The companies Toshiba, Sharp and Hitachi together with the Government of Japan have implemented a prepared guide for 3D content viewers explaining the negative consequences. It is about the dizziness, the elation, the heaviness in the eyelids, each of which can be a consequence of watching 3D movies" (p. 96)

With these and other facts presented in the dissertation, it is clear that watching 3D movies can cause serious problems for people's health. The only plus is that there is an increased brain activity derived from the impact of these films, but it is good to always be warned of possible health problems.

All the studies, results and recommendations used in the text are from the work of other researchers, used by the author.

Chapter Four, *The Future of 3D Film* consists of eight sections. Here, the main focus of the dissertation is shifted again, and the emphasis is laid on technical descriptions. The author proposes the idea of the hologram image as the new future of 3D perception. All the statements in this chapter are not based on certain studies. Sebishki again turns his back on the audience, and the technical part of the problem comes to the fore.

In Chapter Five, the doctoral student describes Trends and Authorial Development and summarizes with the following: "My conclusion from the doctoral study is that whether we like it or not, the future of film and television is virtual cinema, supplemented by AR, MR and XR technologies or METAVERSE (the meta universe); that all people in the metaverse will be their own directors of the avatar in film or life. Classical directing will lose its meaning. The director will have to find a way to redirect the interest of the participant" (p.139)

Contributions

The PhD student has listed four contributions, namely:

1. This dissertation provides a comprehensive overview of the most significant effects of 3D technology on the viewer's perception of an audiovisual forms. This detailed overview can be used as a handbook by theorists and practitioners (film students with an interest in 3D technologies and professionals in the field).
2. In this dissertation, I explain why 3D cinema can have a positive effect on the viewer. This detailed

explanation can be of use to both theorists of 3D technology and practitioners – cinema managers, producers of 3D products, and artists.

3. In this dissertation I dwell in detail on why and how 3D technology and specifically virtual film can have a negative impact on the viewer. Understanding this negative impact and then finding ways to counteract it – these are the most significant contributions to the current theoretical development. They could serve both theorists (scientists, researchers, film, and technology teachers) and practitioners (people who invest money and time in the creation and distribution of 3D cinema); they could mostly benefit consumers, i.e., viewers.

4. In this dissertation I give an answer to the question about what the future holds for 3D cinema. This analysis could benefit theorists and practitioners related to 3D technologies. "

These are the contributions that the author has formulated. For me, the only contribution is the large-scale review he has made.

Regarding item 4, the answer about the future of 3D cinema, I reckon that he is quite presumptuous. Every future is made up of many components, and if one is out of place, it is bound to undergo certain changes. So, I do not take what is written in item 4 as a statement, but as an assumption.

Opinions, recommendations, and notes.

I believe that this extensive retelling of foreign studies, experiments and claims would have gained more legitimacy, veracity, and merit if the author had relied on his own research. The work thus presented shows the doctoral student's aspirations for authenticity, originality, and veracity without having the expected results in reality. However, had the doctoral student discussed his own research and described his encounters with the problem, which would show us more merit than the retold thoughts of others. In his work as a practitioner, Despot Sebishki will probably not only rely on the analysis, but will also draw the appropriate conclusions. In this way, the achievements in his films will be even better. So, I will vote Yes! I expect to see more of the author's own experiments that will help him fill the lack of in-depth theoretical knowledge.

Date

18.09.2023

Reviewer:

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