Analog vs. Digital - The Emotional Impact of Film Recording Processes on the Audience

Original title / Originaltitel
Analog/Digital – Die emotionale Wirkung von Filmaufnahmeverfahren auf das Kinopublikum

Summary / Zusammenfassung
Digital formats have already largely supplanted analog formats in the arena of film production. This is the case in Switzerland, where a large majority of films, including feature films, are filmed digitally. Postproduction is done almost exclusively digitally worldwide. The transition of projection technology from analog to digital, however, has only recently begun to take place on a large scale in Swiss movie theaters.

The technological and aesthetic aspects of this transition have been discussed extensively from the outset, in particular within the field. A certain coldness and sterility is often ascribed to digital images, said to derive from the underlying difference between the dancing grain of the analog film emulsion and the rigid pattern of the digital image. No empirical investigation exists, however, that employs an interdisciplinary approach built on a rigorous psychological foundation and that investigates the question of whether and how this difference, based on the materiality of the medium, influences reception and in particular emotional processing.

A pilot experiment comparing digital and analog images has already shown surprisingly significant differences, with test subjects granting clearly more positive ratings in overall impression and visual quality to analog images over digital images. The present research project has as its aim the detailed and methodical investigation of this previously unexplored aspect. To this end, three short narrative films, each attributable to a clearly defined genre, will be produced in parallel with digital and analog cameras. In postproduction, an additional variant will be created that seeks, to the greatest extent possible, to give the digital film an analog “look.” The effect of these both narratively and technically different films will then be compared in an experimental setting. The dependent variables to be incorporated include both subjective feelings by means of self-reports and questionnaires and objective physiological indicators, including skin conductivity, pulse, and eye movement. At the center of the investigation is the question of the extent to which the difference is perceived at all, whether the specific characteristics of the analog image are expressed in a changed experience of narrative films for the spectator, and to what extent, if necessary, this effect may be altered through subsequent processing of digital film. Also to be studied is whether a significant difference can be observed between test subjects who grew up with analog cinema and are familiar with the traditional recording processes, on the one hand, and so-called “digital natives” on the other, who were born after 1980 and thus socialized predominantly with digital images.

The topics to be explored in this project are exceptionally current, not only because they capture, document and investigate, in a systematically empirically supported manner, a radical media transformation that is still in the process of being born, but also because of their great relevance. Knowledge transfer between the areas of scholarship and praxis, which operate largely in isolation from one another, is a necessary step to reflect on and to steer the medial transition. In addition, these questions are of direct economic interest. In particular, should it be shown that viewers’ emotional experience correlates significantly to medial materiality, these results could have a lasting influence on production decisions.
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Funding Source(s) / Unterstützt durch
SNF (Personen- und Projektförderung)

In Collaboration with / In Zusammenarbeit mit
Leading House: Switzerland
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Duration of Project / Projektdauer
May 2012 to Apr 2014