



**Microeconomics**

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**FORMATION OF THE ADVANCED  
MULTIMEDIA PRODUCT  
PERCEPTION MODEL BASED  
ON CONVERGENCE OF FACE-TO-FACE  
AND SCREEN-TO-SCREEN APPROACHES**

**Abstract**

The article deals with the approach to developing an advertising multimedia product for the promotion or sale of goods or services. Under the advertising product is an advertising video, an interactive commercial, 3-D advertising, virtual and augmented reality, an online store. Based on the analogy method, a diagram of the process of perceiving the advertising multimedia product by the user is presented. The use of the hybrid approach of customer development for updating the multimedia product and taking into account the virtual values of users is substantiated. Developed scenarios for the development of a multimedia product, depending on the results of achieving the planned goals. The sequence of multimedia product development is proposed based on the convergence of face-to-face and screen-to-screen approaches.

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### **Key words:**

Multimedia product, perception, virtual values, face-to-face, screen-to-screen.

**JEL:** A13, C80, C88.

### **Problem setting**

In the era of digital marketing there are new promotional tools, for the development and use of which requires appropriate and economic requirements approaches and techniques. Modern marketers should work closely together to create promotional products with the developers of multimedia electronic editions (products). And the closer this interaction and understanding, the better the end result. With the development of Internet technologies for modern society, it becomes commonplace that in the virtual environment there are communication, entertainment, agreements are concluded. The boundaries between physical and virtual reality are erased. Thus, Internet technologies are increasingly penetrating our lives, occupying a significant place in the processes of communication. We can consider a multimedia product as a means of transferring content from a developer to a user. The process of user perception of a multimedia product is subjective and based on virtual values. Virtual values mean «such values that are not simply actualized with the help of» virtual reality, «but are fundamental to the culture of» virtual reality «generated by interaction in a particular virtual environment» (Martjanov, 2015). According to it, design and development of an advertising multimedia product must be carried out taking into account virtual values.

The problem of the present stage of communication in a virtual environment is the dominance of visual perception channel. As noted by Ivanova T. (Ivanova, 2015), modern society has not developed algorithms for obtaining qualitative knowledge with the help of only one visual perception. «This is due to the fact that for 2000 years, humanity received knowledge through a living word, personal conviction, but not visually» (Ivanova, 2015). The multimedia product allows you to engage not only the visual channel, but also audio, in the process of perception, as well as activate the user through interactivity. The challenge of

developing a multimedia product is to find ways to switch user interaction with multimedia products from screen-to-screen to face-to-face through analysis of virtual values. That is, to bring the perception of the product closer to interpersonal communication.

### **Analysis of recent publications**

This problem is presented in the works of Russian scientists: Volodenkov S. V. (Volodenkov, 2015), Dushkin M. R. (Dushkina, 2016), Martjanov D. S. (Martjanov, 2015; Martjanov, 2015), Popov D. S. (Popov, 2012). Approaches face-to-face and screen-to-screen covered in papers Ivanova T. (Ivanova, 2015), Meisel S., Marks B. (Meisel, Marx, 1999), Kemp N., Grieve R. (Kemp, Grieve, 2014), Gillieron F. (Gillieron, 2007).

In the above studies, the analysis of virtual values is not used to form an advertising multimedia product. Studies are more theoretical than applied. In work on the analysis of face-to-face perception and screen-to-screen approaches, emphasis is placed on the educational sphere, and the effects of the multimedia product are broader. The mechanism of convergence of these approaches remains unresolved.

### **Purpose**

The aim of the article is to create a sequence of development of a multimedia product on the basis of the convergence of approaches face-to-face and screen-to-screen, taking into account the value of virtual users.

### **Main results of the study**

In the scientific literature distinguish two approaches to the way of interaction of communication: face-to-face and screen-to-screen (Dushkina, M. R. (2016); Martjanov, D. S. (2015); Popov, D. S. (2012); Meisel, S., Marx, S. (1999); Kemp, N., Grieve, R. (2014); Gillieron, P. (2007); Shmidt, Ya. (2013)).

- Face-to-face (interpersonal communication) occurs with the involvement of five basic sensations: sight, hearing, touch, sense of smell, taste. The more complete the five senses are involved, the more meaningful the information is perceived.

- Screen-to-screen (screen communication) basically based on visual perception.

In our opinion, the development of an advertising multimedia product should be based on the convergence of face-to-face and screen-to-screen approaches. The term «convergence» means mergers, erosion of borders (Kachkayeva, A. G. (2010). The process of perceiving a multimedia product in a screen-to-screen mode should bring the user closer to the feelings of interaction with the interlocutor in face-to-face mode.

According to the theory of marketing impressions, we consider that it is necessary to form the impressions of the user in the perception of an advertising multimedia product. Impressions create a favorable ground for the ultimate goal of the developer, for example, the sale of goods, services, dissemination of information about the company, increase of loyalty, etc.

Using the analogy method, we will trace the process of perceiving the multimedia product by the user, as if communication was not at the level of a man-machine, but at the level of man-man (Fig. 1).

Model the process of perception of advertising media products to users based on the convergence of approaches face-to-face and screen-to-screen is presented in the form of a funnel that narrows. This is based on the fact that not every multimedia product can affect the user. Formation of impression is possible in case of coincidence of the content with the virtual values of the user, with high quality multimedia product.

The model of perception of an advertising multimedia product is presented in the form of a process consisting of six phases, which cover both the stage of creating a multimedia product, and its own direct perception.

**The first phase** is the reflection by the developer of the perception of an advertising multimedia product to potential users at the stage of creating a multimedia product. By simulating the face-to-face situation, suppose that the multimedia product contains external (physical shell) and internal (informational, semantic and spiritual constituents) components.

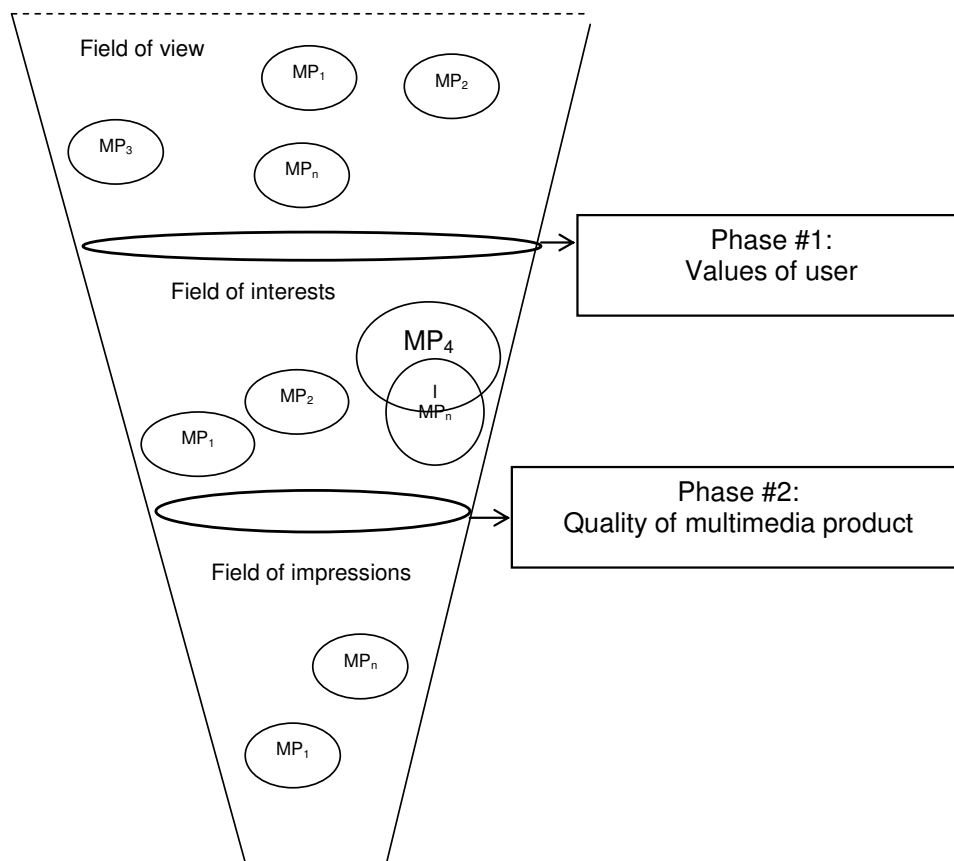
External component includes design, usability, technical constituent (for example site engine or software for content management).

Internal component includes content and idea, which it contains in itself.

**The second phase** is the penetration of an advertising multimedia product into the user's field of view. The created multimedia product should fall into the user's field of view, influenced by a group of factors.

Figure 1

**A model for the process of perceiving a multimedia product by the user based on the convergence of face-to-face and screen-to-screen approaches**



In fig. 1 the following designations are adopted: MP – multimedia product; P – user; and I – interactivity.

Internal factors include the personal interests of the user, which encourage him to independently find the content contained in the multimedia product. The interest in the content may be due to the following reasons:

- hobbies, entertainment of the user (purpose: fun, relaxation, expansion of the horizons);

- work (purpose: solving working issues);
- communication (purpose: socialization, transfer and exchange of data);
- purchase and sale of goods and services;
- studying;
- solving life problems and others.

External factors include those that do not depend on the user:

- random factors (in the process of Internet surfing the user may accidentally be interested in a multimedia product by hyperlink, receiving content in the form of spam e-mail mailing or otherwise);
- imposed interest in the content (for example, the managers of the company require the acquaintance of subordinates with information in the form of a multimedia product; a multimedia product review in the general flow of materials at a conference, exhibition);
- recommendations of friends, relatives, etc.

Further study of the factors involves additional research.

**The third phase is an action.** Suppose there is an advertising multimedia product, like a man in his physical form endowed with a soul. Getting in the field of view a multimedia product is activated in action. So by analogy, with the contact of two or more interlocutors, action occur in the form of dialogue, monologue, contemplation. The action may be explicit (in the physical world) or hidden (cognitive processes). The multimedia product must start to function as intended by the developer. The launch of the mechanism of action is carried out by the user. The operation involves the transfer to the user of the content laid by the developer in a multimedia product. The action of the multimedia product occurs in the forms presented in Table 1.

*Table 1*

**Forms of action of an advertising multimedia product**

Form	Example
static	content transfer in the shell of the landing page, an internet site without built-in video elements, electronic journals, etc.
dynamic	transmission of content in the shell of a website with a parallax effect, embedded video elements, flash banners, Power point presentations, video clips, etc.
interactive	multimedia products with added reality, NFC technologies, mobile applications, etc.

**Fourth phase – activation of filter 1: user values.** Fourth phase – activation of filter 1: user values. In order to further process, the perception of an advertising multimedia product, the user must pay attention to it. This is possible if the content of the multimedia product is valuable to the user, that is, it resonates with his personal values.

The user value system is subjective and it is not expedient to customize the multimedia product for each individual user. At the same time, it is possible to highlight the group of values of the user segment, which will allow them to be taken into account during the development process.

In connection with the penetration of the Internet in the life of modern society there is the concept of «virtual values» of the user (Popov, 2012; Shmidt, 2013). Virtual values are not just the transfer of traditional values to the Internet, but also the emergence of new, generated by the specificity of interaction in the virtual environment. They are intangible, based on network ethics, cyber culture and virtual ideologies (Meisel, Marx, 1999).

Popov D. S. (Popov, 2012; Shmidt, 2013) refers to the key virtual values the freedom to receive any information, the possibility of anonymous communication with different individuals and communities, the acquisition of knowledge from various sources for operational decision-making, trust in information and those who create it, the possibility of inclusion in various informal groups of interest.

Schwartz Sh. in his study (Schwartz, 2005) noted that the following virtual values were updated on the Internet: security (provided by anonymity); hedonism (in Greek «hedone» is a pleasure); universalism (copy of the culture of Western Europe, connected with usage in the Internet English language); achievements (increasing information can achieve a higher level of results, even in the context of increasing the commercial component; for example, education).

Systematization of the user's virtual values that perceives a multimedia product requires further research. In our opinion, as virtual values, it is expedient to take into account freedom of access to information, knowledge, anonymity, self-expression, hedonism, etc.

**The fifth phase – activation of the field of interests of the user.** Having passed the value filter, an advertising multimedia product falls into the user's field of interest. In this phase, the user focuses on an advertising multimedia product.

How to determine if a multimedia product should be developed based on the user's or the developer's goals? Which approach is more efficient to use: engineering – the creation of a product according to the manufacturer's design and sale to his client; marketing – analysis of market requests, after which the product is identified as a solution to the problems that have been identified?

In our opinion, taking into account the dynamics of user queries, the emergence of new technologies, it is expedient to use a hybrid approach to the devel-

opment of a multimedia product – customer development (Sokolova, 2015). The methodology of customer development suggests that a product must solve a client problem: first, a problem is detected, then the product is being developed, and not vice versa. The development of the product is a way of trial and error. «The mistake is a business benefit that allows you to study. Customer development is not a plan, but a search and learning that is accompanied by a large number of unsuccessful experiments» (Sokolova, 2015).

At the initial stage, a product version is created that solves user problems and at the same time reflects the interest of the developer. Then, through the iterations in time, the product is refined to take into account the user's interest. Revision may be based on the use of such tools (Table 2).

*Table 2*

**Tools for analysis of user's virtual values**

Type	Tools
on-line	processing of feedback results (reviews on a site, forum, e-mail, number of people who made a content repost, the number of people who liked or disliked content (like / dislike); conducting on-line polls; conducting A / B testing, etc.
off-line	conducting questionnaires, polls; organization of focus groups; dialogue with the user in the process of establishing a personal contact with the developer or project manager, etc.

Analysis of user values using on-line and off-line tools allows you to improve the multimedia product after it was created in order to achieve the goals of the developer. For example, an analysis of the Number of Abandoned Trash items in the Google Analytics report may tell the developer that the user liked the product and he put it in the trash, but something in the perception was wrong, so that the goal of the developer – the sale was not achieved.

The process of misconception may be due to the technical side (non-operating buttons, fields, forms) and the content side (the complexity of filling forms, ambiguity of action to make a purchase). As a result, the user's value, such as the speed of obtaining the desired product, was not achieved. The analysis carried out will allow you to complete the multimedia product, taking into account the values of the user.



Is it always necessary to upgrade and with what frequency it is expedient to update a multimedia product based on the analysis of user values? In our opinion, a scenario approach should be used to answer this question.

As a criterion for choosing a scenario, it is suggested that the plan and actual developer goals are compared. Objectives need to be formulated in the form of benchmarks. Not comparing the planned and actual state, we will not be able to make any estimates. When there is no degree of approximation to the goal, progress can not be measured (Kolupaev, 2013). We distinguish four key scenarios for the development of a multimedia product based on the assessment of achieved goals (Table 3).

Table 3

**Scenarios of advertising media product depending on the results achieve the planned objectives**

Scenarios	Match scheduled and actual goals	The iterations of product improvement over time
Scenario of reasonable goals	Coincidence or a slight gap	increase
Scenario of unreasonable goals	Gap	reduced
Scenario of sudden failure	The sharp break after positive dynamics	reduced
Scenario of fading interest	Gradual break	reduced

1. Scenario of reasonable goals involves supporting the technical characteristics of the multimedia product and periodically updating the content. It must be taken into account that the achievement of the planned goals involves a time lag.

2. Scenario of unreasonable goals. In case of failure to achieve the planned goals do not meet the goals previously set by the developer, then it is necessary to review the technical implementation of the product and the content, for the following reasons:

- The multimedia product is technically not capable of displaying the idea of content (for example, the site is too long to download, the site is not adapted to the mobile version, the video is not played, interrupted, etc.);

- The content is not clear to the user (the idea of the content requires long comprehension; the idea is not obvious);
- Inappropriate form of content (for example, for text content, language spells are not user-friendly: text is not structured, difficult to perceive, sentences are long; for video content: the video is too long or too short, actions are not intriguing, etc.).

3. Scenario of sudden failure. In a situation where the goals of the developer were previously achieved, and then there was a sharp drop in the results, you need to look for the reason that led to this. Perhaps the site has been hacked, copied by competitors, etc.

4. Scenario of fading interest. A multimedia product, like any product, is subject to the concept of the product life cycle. Therefore, the reduction of interest is inevitable. In this regard, the developer must act using a proactive approach, that is to predict users' expectations.

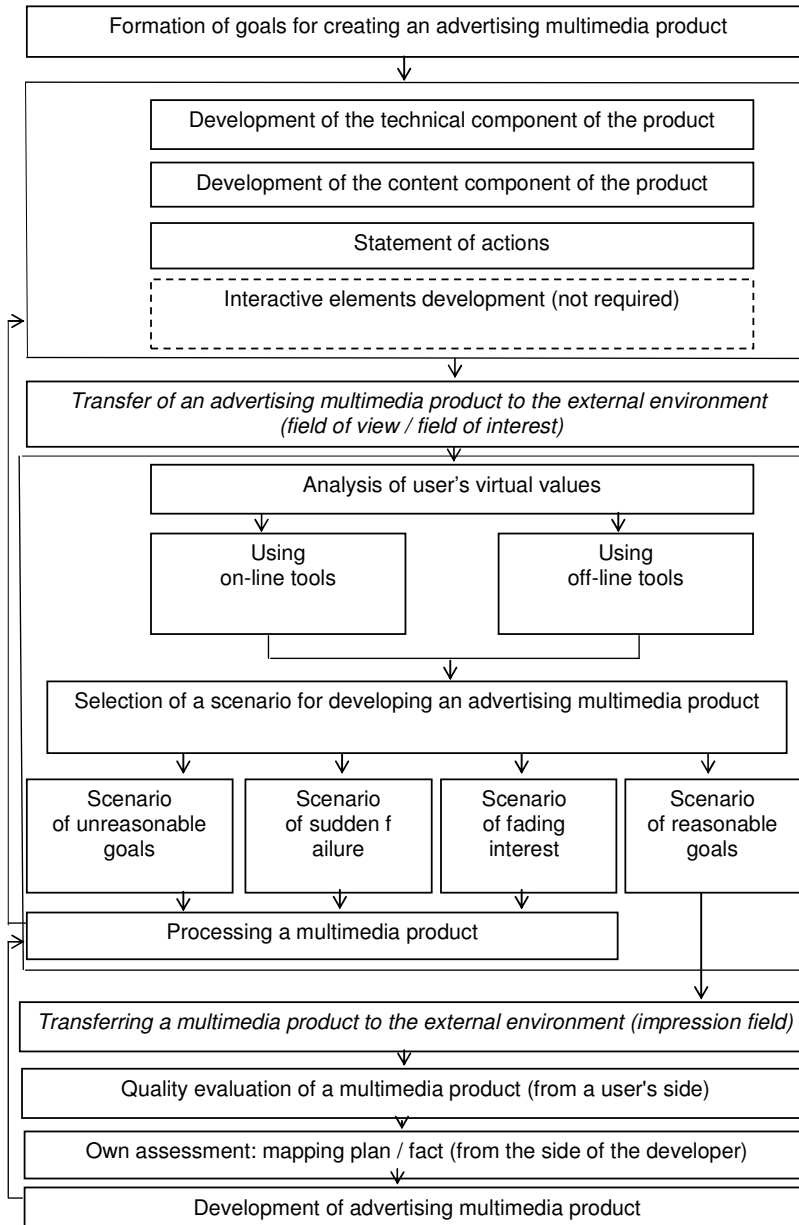
The field of interests of the user involves the establishment of a person-machine contact in 2 forms of communication: one-way contact (a person / group watching the action of the multimedia product); interactive contact (people interact with the content of the multimedia product.)

**The sixth phase** is the activation of the filter 2; rating of the quality of the advertising multimedia product. After the user has spent time on the perception of a multimedia product, he subconsciously assesses its quality. If the multimedia product is of high quality, its technical implementation has allowed to convey the content that turned out to be useful, answered the question, resolved the problem (rational side), caused positive emotions (emotional side), then this product goes into the field of impressions. Otherwise, the user drops the multimedia product out of sight. Based on the research conducted, the development of a multimedia product should be constructed in such a scheme (Fig. 3).

Developing an advertising multimedia product should erase the boundaries between face-to-face and screen-to-screen approaches, highlighting best practices in communication in approaches.

Figure 3

**Development of an advertising multimedia product based on convergence of face-to-face and screen-to-screen approaches**



## Conclusions

The process of perceiving an advertising multimedia product by the user is presented schematically in the form of a funnel that is narrowed due to filtration. Two types of filtering are distinguished: the first one when the advertising multimedia product passes from the field of view (value filtering) to the field of interest, and the second one – when moving from the field of interest to the field of impressions (quality filtering). Filtering (passage of the multimedia product by filters 1 and 2) occurs unconsciously, often instantaneously, and subjectively. The decomposition of perception and filtering processes will partially control the user's perceptions and achieve the goals of the developer.

The development of an advertising multimedia product, taking into account the virtual values of users, should be built on the principles of the hybrid approach of customer development, which will allow small changes in iterations in time to make changes, track the effectiveness of small steps. The study highlights on-line and off-line tools for analyzing user's virtual values.

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