

Digital marketing as a type: concept, tools and effects

Sokolova N.G.

M.T. Kalashnikov Izhevsk State Technical University
Izhevsk, Russia
sokolova-ng@mail.ru

Titova O.V.

M.T. Kalashnikov Izhevsk State Technical University
Izhevsk, Russia
tov69@yandex.ru

Abstract — In the article, the authors supplement the scientific and theoretical content of marketing by interpreting the concept of “digital marketing”. It is interpreted as a set of activities and practice of using all aspects of the organization’s traditional marketing, with the aim of managing relationships with target audiences through digital information and communication technologies and electronic devices. The authors reject the hypothesis of the allocation of digital marketing as a type in a strict scientific meaning. Channels of digital interaction are interpreted, forming means are allocated: user devices, software means and communication networks. The concept of digital marketing content is introduced, a list of digital marketing tools and products is indicated. Opinions on the applied utility of digital marketing are integrated and the effects of its implementation are allocated: differentiation, formation of new sources of income, cost optimization and increase in the value of the organization. The research was conducted within the grant support of priority research of scientists of the M.T. Kalashnikov IZSTU, project number 38.04.04/18SNG.

Keywords — *digital technologies, digital marketing, digital interaction channels, means of digital interaction channels, digital marketing content, digital marketing tools, digital marketing effects.*

I. INTRODUCTION

In marketing, like in no other economic and managerial scientific knowledge, new concepts are often introduced. Undoubtedly, changing the conditions and opportunities for doing business, its target orientation and rapidly changing environment implies the development of new approaches, methods, tools, re-evaluation used earlier. This also applies to marketing, but this does not necessarily involve the “discovery” of its new type. Often, new types of marketing, rather, characterize the use of only certain methods of promotion, the search for novelty is carried out at the level of terminology. Often, the “new” type of marketing is, in fact, classic marketing, in which refined accents are made in the directions of research and the content of its individual methods. Moreover, the principles of marketing, its toolset as a whole, the content of individual stages of marketing management do not undergo any changes. In some cases, the types of marketing can be called pseudo-types, and their name is not scientific in nature, but only popularizes the phenomenon. This is the situation with vertical and lateral marketing, guerrilla and viral marketing, entertainment and permission marketing, database marketing and CRM marketing. It is obvious the difference in the types of marketing should not be determined only by the features of using one of its single tools, but be deeper and more complex. In this regard, the authors of this article attempt to supplement the scientific and theoretical content of marketing, formalize

such a phenomenon or type of marketing as digital marketing, answer the question whether it can pretend to a strict interpretation as a type of marketing and whether it complements marketing terminology.

II. RESEARCH METHODOLOGY

Separate names of types of marketing can be interpreted in a fairly strict scientific plan, and used in a non-strict sense. In the first case, marketing is considered from a scientific point of view, according to which, the attribution of any direction of marketing activity to certain types of marketing must meet certain requirements. From the point of view of Golubkova E.P. [3, p.36] the type of marketing must meet three requirements:

1. Completeness, i.e. use all elements of the marketing complex;
2. Management integrity, i.e. to provide in a fairly complete way the use of the entire marketing management algorithm;
3. Complexity, i.e. the type of marketing must satisfy the requirement of including both analytical and practical types of marketing activities that end in an exchange.

Taking into account stated task and specific requirements, based on the methods of scientific perception, consider the prerequisites for the birth and development of digital marketing; fix its concept and specific means, tools for its implementation and effects of the application; conclude on the possibility of strict interpretation of digital marketing as its type.

III. RESEARCH RESULTS AND DISCUSSION OF RESULTS

The development and improvement of any management concepts, including marketing, is a natural trend in the development of science and practice. The end of the 20th and the beginning of the 21st century is characterized by the entry into the information age, also known as the “computer age” or “digital age”, and someone like the “information age”. This is the period of transition from the industrial era to the informational one, the basis of which, undoubtedly, are information technologies.

The concept of “information technology” is quite diverse. In one of the interpretations, information technologies (IT) are understood as “a set of methods, production processes and software and hardware means, combined in a technological chain, ensuring the collection, storage, processing, output and dissemination of information to reduce the laboriousness of information resource use processes and increase their reliability and efficiency” [9, p.49]. In another it is noted that IT is “a set of software and hardware means and systems that provide effective complex solution of heterogeneous tasks

related, primarily, to the collection, storage, transmission and processing of information" [18, p.23]. In general, the authors [14, 18] characterize IT as methods and ways, using computer software and hardware means, separate or cumulative information processes and operations to achieve their objects. It can be noticed the unity of opinion of the authors that IT is software and hardware means, for which information is not only a product, but also a raw material.

It is IT that form the modern era of mankind and it is useful to mention here that they are divided into analog and digital. With the help of analog technologies, information is presented in the form of any analog continuous physical quantity, the meaning of which is the carrier of information. The application of digital technologies is based on the representation of signals not in the form of a continuous spectrum, but in the representation of a signal by discrete bands of analog levels. All levels within a band represent the same signal state. In comparison with analog signals, the simplicity of digital signals provides them with greater immunity from interference, including transmission over communication channels.

So, if we want to capture the essence of digital marketing as a type, then we should start with an understanding of the nature of digital technologies. Analysis of a number of sources allows us to state that "... digital technologies: technologies that use electronic computer equipment for recording code impulses in a certain sequence and with a certain frequency..." [5]. Also, digital technologies should be understood as "technologies associated with the creation, collection, processing, storage and transmission of information based on digital systems" [1, p.1131]. It is useful to point out that digital technology is a discrete system based on the methods of encoding and transferring information, which allows you to perform many diverse tasks in the shortest possible time intervals [15]. Digital technologies drastically changed the way information is presented, which increased its quality, the degree of preservation during storage and transmission in a much smaller volume.

It should be noted that the concept of "digital technology" evolves following the changes and complications of technology, user devices and methods of their interaction. At the same time, the spheres of human activity, that are being penetrated by digital technologies, are modified: business, labor, management, etc. The behavior in consumer markets (and business) is transformed, the border between offline- and online purchases are erased: according to data published in 2017, 44% of consumers choose and buy online; 51% choose a product online, buy offline; 17% visit the store first, then buy online; 32% choose online, visit the store and then buy via the Internet [16].

Today, digital technology is the surrounding reality of the life of the whole society, the decisive factor for success and advancement in each field of activity, which gives indisputable competitive advantages. With the development of digital technology and the digital sphere, derivative concepts appear, such as: digital ecosystem, digital economy and digital marketing. Connection scheme of these concepts [12, p.230] is brought in Figure 1.

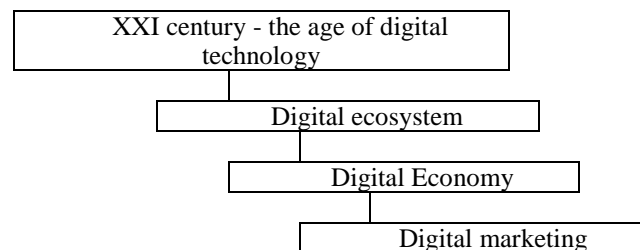
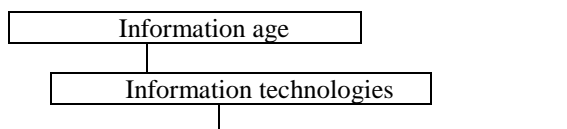


Fig. 1 Connection of concepts of the digital sphere

The father of digital marketing is considered to be SoftAd Group [8], in 1985, it advertised in many publications calling for the reader to cut out an ad, put it in an envelope, and in return receive a multimedia disc with automotive content and the opportunity to sign up for exclusive test drives. This method became a pioneer, about five years later, the term of digital marketing was fixed, its methods began to actively develop and spread.

An analysis of the forms of interpretation of the term digital marketing allowed to reveal a certain hierarchy of understanding of this phenomenon from simple to complex, from narrow meaning to broad. Digital marketing in the narrow sense is interpreted as follows [7, 8, 15, 16]:

- A general term for marketing products and services that uses digital channels to attract and retain customers;
- a totality of digital communication channels for brand promotion, ways and measures to influence consumer, using digital technologies and channels;
- an integrated approach to the promotion of the company, its products in the digital environment, also covering offline consumers, providing for the integration of a large number of different technologies (social, mobile, web, CRM systems, etc.) with sales and customer service.

Such variants of interpretation of digital marketing limit its field of activity, connect it only with informing about the product and increasing brand awareness, attracting and retaining customers.

In a broad sense [6, p.261], according to the authors, digital marketing is marketing that provides for interaction with customers and business partners using digital information and communication technologies and electronic devices in order to create interaction networks.

The authors of the article consider, that in the future, the field of digital marketing will only expand up to including not only consumers, but also business partners as a whole in the range of its action. It is digital marketing that allows for a permanent bilateral personalized online dialogue with each consumer or counterparty, stakeholder. Such a dialogue, built on the use of data obtained from past interactions to service the following contacts, works like a neural network. Digital marketing promotes consistency between the needs (desires) of the user and the organization's strategic business objects, increases the conversion rate and, at the same time, the level of involvement and loyalty of the lead - "the customer who showed interest".

It is necessary to agree with a number of authors [1, 10] that digital marketing is formed and will be developed on the basis of a number of digital technologies presented in Figure 2.



Fig. 2. Technologies, underlying digital marketing

If there is some certainty with the concept of digital marketing and the technologies that underlie its development, then there is no such certainty with the presentation of its means and channels, we will try to clarify it too.

Marketers carry out interaction with customers (partners) through ways called *channels*. In digital marketing for this there are many channels, the number of which constantly increase: from interaction on the site to personal communication with employees; from print advertising to TV advertising; from emails, newsletters, blogs, social media to brochure letters that are mailed. Under the channels of digital marketing in the literature it is implied such a different phenomenon that requires certainty.

Analysis of the forms of terminology and presentation of digital marketing channels [4, 11, 13] allows, firstly, to state, that, in this case, it is appropriate to speak of *digital interaction channels* as a combination of the means by which digital information is transmitted. Secondly, there are *three groups of means*, the combination of which generates the whole variety of channels of digital interaction:

1. *User devices* (hardware) physically providing communication with the "receiver": self-service terminals; POS terminals; interactive screens; digital gadgets; game consoles; computers and tablets; smartphones, etc.;
2. *Software means* to encode and decode information, to "enliven" technical devices and to ensure interaction: software; mobile applications; digital art; websites, etc. ("enlivening" local networks, creating social networks, creating online stores);
3. *Type of communication network* providing interaction as a technical system including communication means and lines, designed for electrical and other communications. Here we face the types of telecommunications, in which the transmission of information of any kind (voice, symbolic, visual, digital) is carried out by electrical signals circulating through wires or radio signals. Types of communication lines - a set of technical devices and the physical environment, providing the transmission and distribution of signals from the transmitter to the receiver. Here, data networks, telephone and telegraph, radio and television networks come into play. We can allocate the so-called digital networks (digital TV and GSM). Separately mark wired (FOCL, cable connection), wireless (radio wave and satellite) and combined networks. Highlight local, corporate, zonal and global networks and mention here that the Internet is a collection of various networks on a global scale. In the end, about access networks, aggregation and backbone networks.

The presented variety of channels should be filled with content, its content. Content (eng. content - "content") is the inner essence of something (filling), "any informationally significant content of an information resource: texts, graphics, multimedia..." [13, p.210]. Electronic content - information, as well as products and related services provided to subscribers of data transmission networks and mobile communication

networks in digital form, and consumed using digital devices [17] or digital content is a set of information materials distributed in digital form through communication channels intended for use on digital devices, "not just useful information..., but one of the main marketing tools to ensure the effective development of the digital economy" [12, p.231].

We conclude that *digital marketing content* is information (a message about the configuration of the marketing complex variables) provided to consumers and business partners in digital form via communication channels using digital devices, thanks to which, the potential counterparty pays attention to the organization's offer and enters with it in interaction, becomes her partner.

So, digital marketing is realized through the formalization of *digital marketing content* and a *digital interaction channel*. It is their combination that generates specific *digital marketing tools*, sites or environments that allow to realize a marketing impact on target audiences, such as:

- Social media (SMM) and blogs;
- E-mail;
- Search engine optimization (SEO);
- Content creation;
- Landing page;
- Virtual Reality (VR);
- Augmented Reality (AR);
- Press releases in online media;
- Co-creation.

The same combination of content and channel allows to create *digital marketing products*, offered for sale during marketing consulting:

- standard services (website development and promotion, media and contextual advertising, design, production);
- development of a comprehensive company development strategy in the digital environment (expertise and promotion);
- work with social media (promotion in social networks, blogs, forums, specialized platforms);
- organization of events, competitions (strategy, creativity, execution, performance analysis) in combinations of online / offline promotion;
- additional services: QR codes, geolocation services, RFD, Wow calls, virtual reality, etc.
- Integrating the views of a number of scientists and practitioners [2, 12, 13], it can be concluded, that digital marketing allows for:
 - a complex approach to the promotion of the organization, its products and services in a digital environment, also covering offline consumers, using mobile phones and other digital means of communication;
 - integration of a large number of different technologies (social, mobile, web, etc.) with sales and customer service;
 - constant high-quality two-way communication between the advertiser and the ultimate consumer;
 - a combination of technology and human resources, observing the right balance, based on the needs of the target audience and the properties of the proposed product or service;
 - the opportunity to be relevant to the market, to evaluate and analyze the results of the promotion, to respond flexibly to the needs and adjust your product or service.

IV. DISCUSSION OF RESULTS

We conclude that the introduction of digital technologies in marketing has the following effects of:

1. *Differentiation*, through marketing research, personalized targeted online advertising, the use of virtual advertising, pricing based on the principles of revenue-management and big data analysis;

2. *Formation of new sources of income* through the increase in online sales, the creation and monetization of virtual copies of customers, cross-sales based on customer preferences;

3. *Cost optimization*, through the increase in the number of virtual retail outlets, inventory management based on big data analysis, demand prediction, using revenue management, automation of supply chain elements;

4. *The increase in the value of the organization* due to marketing sources, enhanced by the introduction of digital technologies: by strengthening the marketing information system, increasing the strength of the brand and increasing loyalty, enhancing strategic relationships.

Digital marketing, like any marketing technology, requires a responsible and systematic approach to the application. When using digital marketing, it is necessary to "look at consumers or another counterparty as active participants in marketing activities... [2, p.25]" and take into account a number of principles [2, pp.25-30; 10, p.2454; 12, p.230]:

1. Consumers and customers should be actively involved as participants - creators, distributors and commentators. Consumers will increasingly initiate and direct marketing campaigns, a significant portion of the content will be created by consumers themselves;

2. Marketers should exceed the limits of the traditional indicators of coverage and frequency, identify a set of channels that satisfy their customers;

3. In digital marketing, content will increasingly be independent from the special dissemination methods and restrictions, associated with the types of supported devices;

4. Correspondence with participants should be conducted only with their permission and on the basis of the stated preferences of each;

5. Marketers will need to comprehend the purport of a large set of options for new media, many of which involve a system of indicators based on the principle of payment for the result;

6. In the digital world, where consumers act faster than companies, it's impossible to manage news. Marketers will have to change their approach and become a key component of the participants communication, using all possible digital technologies and tools, available to them, not to impose their will, but to protect their point of view;

7. To connect digital and physical points of contact, marketers will need more advanced approaches: the focus will shift from integrating marketing communications to consolidating the practice of working with each consumer;

8. Data is the basis of the effective use of digital channels. A central element of digital marketing will be a data management plan. Marketers will use them for a more detailed description of consumers in terms of psychography and behavior;

9. Use real-time data analysis to make quick and based on facts changes to their digital marketing activities;

10. Through target channels in the marketing mix, everything will be measured and optimized to ensure continuous improvement in customer interaction.

V. CONCLUSIONS

As a result of the research, the authors came to the following conclusions:

Digital marketing is a set of activities, the practice of using all aspects of the traditional marketing organization, that provides interaction and management of relationships with the target audience through digital information and communication technologies and electronic devices. It includes the practice of e-marketing, online and e-mail marketing, social media marketing and mobile marketing. Characterizes the modern stage of the evolution of marketing. It provides opportunities for the development and strengthening of other types and practices of marketing: targeted and customized, holistic or partner, interactive marketing of goods and services, finally, viral and hidden marketing;

In strict scientific terms, digital marketing cannot be treated as a separate species. At the present stage, it does meet the requirements of completeness (since it is mainly busy with elements of promotion), managerial integrity (as it concentrates on the implementation of the marketing plan) and complexity (as it mainly implements practical types of marketing activities);

At the border of the XX and XXI centuries, due to digital technologies, the importance of marketing was re-evaluated, and, above all, from its practical efficiency. There is no place for the "death of marketing" judgments; its theory and methodology are supplemented. The scientific and theoretical content of marketing is expanded, supplemented and enriched through the practice of digital marketing. It is the digitalization of marketing organizations that will become the basis for increasing competitiveness in highly competitive markets.

References

- [1] Boyko I.P., Yevnech M.A., Kolyshkin A.V. Enterprise economy in the digital era// Russian Entrepreneurship. - 2017. - Volume 18. - No.7. - p.1127-1136. - doi: 10.18334/rp.18.7.37769.
- [2] Wertheim K., Fenwick J. Digital marketing. How to increase sales using social networks, blogs, wiki-resources, mobile phones and other modern technologies. - "Alpina Publisher". - 2010. - 384 p.
- [3] Golubkov, E.P. Theory and methodology of marketing: present and future / EP Golubkov. - M.: Business and service, 2008. - 208 p.
- [4] Goldstein B.S., Sokolov N.A., Yanovsky G.G. Communication networks. - SPb.: BHV-Petersburg, 2010. - 400 p.
- [5] GOST R 33.505-2003. (approved by The Resolution of the State Standard of the Russian Federation of July 29, 2003 No.255-art).
- [6] Danko T. P., Kitova O. V. Issues of development of digital marketing Problems of the modern economy, No.3 (47), 2013. - P. 261-265.
- [7] DIGITAL-MARKETING FOR BUSINESS / <https://rocky.by/stati/digital-marketing-dlya-biznesa> (access date 18.03.2019)
- [8] Zhestkov N. Digital marketing: what is this? Or examples from the Russian Federation / <https://in-scale.ru/blog/digital-marketing> (access date 20.03.2019).
- [9] Karminsky A.M., Nesterov P.V. Informatization of business. - M.: Finance and Statistics, 1997. - 416 p.
- [10] Kostin K.B. The role of digital technologies in promoting goods and services in global markets // Russian Journal of Entrepreneurship. Creative Economy. - 2013. - Volume 18. - No.17. - p.2451- 2460.
- [11] Nikolaev A. Classification of communication networks / <http://1234g.ru/files/1.pdf> (access date 24.03.2019).
- [12] Ovcharenko N. P., Kostenko K. I., Pavlenko I. G. Digital technologies and digital marketing // Problems of the modern economy. - No.2 (66), 2018. - P. 229-233.

- [13] Aucklander, M.A. Channels and tools of digital marketing // Materials of the international scientific-practical conference. - Sumi: SumDU, 2014. - T.1. - p.209–210.
- [14] Potkina E. S., Kholopova L. A. Information technology development // Concept. - 2014. - Special issue No.09. - ART 14612. - 0.6 p.l. - URL: <http://e-koncept.ru/2014/14612.htm>. - State. reg. El No.FS 77-49965. - ISSN 2304-120X
- [15] Romanova T. Digital technology is the future of mankind / <http://fb.ru/article/335698/tsifrovyye-tehnologii---eto-budushee-chelovechestva> (access date 18.03.2019).
- [16] Ulanov K. Digital marketing in business: 13 channels of promotion and review of their advantages / <http://kirulanov.com/13-kanalov-prodvijeniya-digital-marketing-v-biznese> (access date 18.03.2019).
- [17] Digital content. Dictionaries and encyclopedias on Akademik / <https://dic.academic.ru/dic.nsf/ruwiki/1188766> (access date 24.03.2019).
- [18] Chukaev A.A. Marketing in the information technology market in the context of globalization. Dis... PhD in Economic sciences: 08.00.05. Moscow, 2004. - 182 p.