ADAPTING DIGITAL MARKETING TO ARTIFICIAL INTELLIGENCE

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Methods. In recent years, marketing has reached a point of evolution where adapting to digital trends is essential. In many situations, the platforms used for online promotion include algorithms to identify the best combinations. Specific research methods were used: analysis and synthesis - when identifying new trends in digital marketing, in particular, the use of keywords for sustainable business; classifications – for grouping the most common keyword research tools in digital marketing.

Results. The article provides research that highlights the current position of digital marketing. It has been demonstrated that a new sub-industry is actively growing in the modern marketing industry – automated marketing, which is characterized, among other things, by the inclusion of voice search in marketing or keyword identification methods. and the inclusion of voice search in marketing or keyword identification methods.

The most common keyword research tools in digital marketing are identified, the effectiveness of their application in the practical activities of a marketer is shown. The results of the authors in this article show a change from digital marketing to intelligent marketing using artificial intelligence.

Novelty. Modern trends in the development of digital marketing are identified, and the specifics of its new form – Intellectual marketing – are highlighted. Features of adapting the modern marketing model to artificial intelligence are demonstrated.

Practical value. The paper reviews the current state of artificial intelligence in marketing processes and provides a consistent model using an intelligent marketing solution that can improve website visibility through keywords.

Keywords: artificial intelligence; intelligent marketing; process automation, keywords.

Statement of problem. In the age of digital technology, social media marketing is an important step for companies to change their marketing strategy. At the same time, big data plays a big role when companies change their marketing strategy. Big data is the collection of large volumes of data from various channels such as digital platforms. Using statistical modeling techniques, marketers analyze big data to obtain useful information to help companies make decisions about marketing strategy (1, pp.772–779). So digital platforms and big data help companies develop new marketing strategies.

Artificial Intelligence (AI) will change how keyword research is done. Keywords along with other components are one of the most important elements of a suitable Search Engine Optimization (SEO) strategy, be it an online business or a presentation site (2, pp. 298–304).

Keywords are phrases that users use to find a site in search engines. By studying the keywords used in a particular market, it is possible not only to determine the pattern of terms and phrases that should be included in the SEO strategy, but also to determine more about the potential customers:

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wants, needs, expectations, interests, etc. Attracting interested visitors with high chances of conversion is key. We will also discuss, the best keyword research tools that match your marketing goals.

The most important thing is to attract interested visitors with great chances of conversion. The keyword study allows to anticipate changes in the marketplace, adapt to these changes, and create products, services, offers that are continually searched for by users.

The purpose of the article is to show research that highlights the current position of digital marketing and the inclusion of voice search in marketing or keyword identification methods. This is one of the foundations of voice search.

Analyses of recent papers. Researcher Carvalho explored and documented the SE classification factors after a large survey conducted by companies in the digital marketing segment.

Searches become so smarter due to the integration of chatbots, and the relationships between cars that hold AIs and merchants are debated by Dumitriu [3, pp. 630–637]. Factors as a site to be excerpted in Google Answer Box are being researched by Miklosik [4, pp.463–485].

A simulation is used to examine the occurrence weights in the final page generated by searches on Google.

Researcher Tomes talks about the role of technology and smart devices in marketing campaigns to promote products and services. The proposed product offers interactive voice applications that facilitate the acquisition process of the potential client.

Researchers Zhu, and Tan determine a keyword reversal method to expand their list with the aim to solve the issues of SEO processing. By analyzing the key factor that impacts the keywords of the competition, including data history, the research focuses on real-time and automated SEO analysis to improve its processing. framework of factor assessment, different keywords can be identified to help achieve marketing strategy to increase visibility. Automating marketing is a step towards better business results [5, pp. 1–4].

Olson presents the role of AI in personalizing marketing strategies, offering

through its use a better view of the merchants regarding the clients. Relationships between the company and users are more in-depth and become natural [6, pp. 291–297]. An automatic keyword generation method is proposed, based on the consumer search behaviour theory, and it is used an internal search log for the site to extract them. The approach is empirically tested, and the results are positive.

To study SEO, keywords, content, Spencer [7, pp. 70–75] conducted an independent analysis of it as well as Google's proprietary PageRank algorithm. It uses a linguistic and mathematical approach to highlight how they operate in an ever-changing environment. An analysis of past and current investments for each marketing channel was made by Symons [8, p.42]. Based on the results obtained, a new investment is proposed as a marketing budget using a scoreboard and storing the information in a marketing database.

Aim of the paper. The aim of the article is to reveal the features of the development of digital marketing and the role of artificial intelligence in modern marketing processes.

Materials and methods. Taking into account also the previous mentioned issues, in order to determine the keywords on which the search will be executed on search engines by using any type of device that has a valid Internet connection, the following sequential model consisting of 4 steps was proposed: determine the relevant topics in order to make the site more likely to be searched; the usage of online tools to find the truly relevant keywords for the business; search of keywords regarding those topics in the main search engines; analyzing the keywords used by the main competitor(s) in the field of activity. Initially, the semantic fields and groups in which the keywords are structured will be established. The simplest is to use the names of the product or service categories. The idea is not to make the final list of all the right keywords, but to think of possible phrases that potential customers use to find the products / services that are sold.

The purpose of the proposed model is to define keywords and integrate them into website visibility through SEO techniques, as well as to outline new trends in digital marketing, namely the use of keywords and their importance for sustainable business.

MARKETING

Finding. We will discuss, the best keyword research tools for digital marketing:

1. TopicRanker is meant for the SEO layperson, who don't require advanced SEO features but are on the hunt for keywords that they have an immediate chance of ranking for. search queries with an actual problem with the search results.

2. Jaaxy – this is a straightforward tool, it gives you LOTS of different keyword ideas. Plus, get helpful data on every keyword that it generates.

3. IMfor SMB makes the list due to it's unique method in which keywords are recommended. This tool allows the user to generate keywords based on the business type and location.

4. Google Keyword Planner. Tap into Google's massive keyword database. Keyword lists are made with the name of each category of products or services traded. By using <Google Sheets> in Google Drive, it is possible to create a new Excel spreadsheet. For each category, one tab is created at the bottom.

The advantage lies in distributing the document to any person involved in the process and can change at any time, keeping an updated version every time they work in it (Fig. 1).

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Fig. 1. Keyword list using Microsoft Excel

From the trend of incorporating voice search into digital marketing, a model for identifying relevant keywords for a company is discussed. This is one of the foundations of voice search. A consistent model is provided for defining search keywords using any type of device with an active Internet connection. Keyword lists are made from the name of each category of products or services that exist on the site. It maps an ideal customer profile – Buyer Persona – and assigns keywords that they would use to search the site.

From the displayed list, you can select the desired keywords for which the site should not be found. The list should also include keywords that contain the brand name, the name of the product / service sold, terms of the same semantic field or additional product shoe terms (9, pp. 96-106).

A good keyword research strategy is to check everyone in Google Trends to see evolution and seasonality during the year (Fig. 2).

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Fig. 2. Google Trends results regarding related searches

Keyword Planner is not the only online tool that can be used to find relevant keywords. Search Engines After the list of results from the above tools is completed, it is checked by search engines and can be identified by the identifier of long tail words that can be used in the content. The idea of Mpdel is not to compile a definitive list of all valid keywords, but to come up with possible phrases that potential customers use to search for the products/services being sold. Google Search Console can be used to discover the keywords on which the site is already searched for and found.

Even if competing firms apply certain strategies, this does not mean that they should be used and are generally valid for any company, regardless of its field of activity. This also applies to relevant keywords. Even if a keyword is important to the competition, that doesn't mean it's important to this company.

Conclusions. In today's implementation of the modern marketing industry, a sub-industry has grown up called automated marketing. Digital marketing is all about the latest technology trends. An element of originality is introduced in the SEO process by offering a consistent model for determining the right keywords to use in order to get intelligent, personalized and automated marketing. Identifying the proper keywords will help further to integrate also vocal search on Google because long or ambiguous phrases spoken with many accents can become an obstacle in finding the products / services that are desired.

References

1. Denish, S., & Murthi, B. (2021). Marketing in a data-driven digital world: Implications for the role and scope of marketing. Journal of Business Research, No 125, pp. 772-779.

2. Dimitrieska, S., Stankovska, A., & Efremov, T. (2018). Artificial Intelligence and Marketing. Entrepreneurship, No 6(2), pp. 298-304.

3. Dumitriu, D., & Popescu, M. (2019). Artificial Intelligence Solutions for Digital Marketing. 13th International Conference Interdisciplinarity in Engineering, pp. 630-637. 4. Miklosik, A. (2019). Search Engine Marketing Strategies: Google Answer Box-Related Search Visibility Factors. In Handbook of Research on Entrepreneurship and Marketing for Global Reach in the Digital Economy, IGI Global, pp. 463-485.

5. Zhu, X., & Tan, Z. (2012). SEO keyword analysis and its application in website editing system. In IEEE 8th International Conference on Wireless Communications, Networking and Mobile Computing, pp. 1-4.

6. Olson, S., & Levy, J. (2018). Transforming marketing with artificial intelligence. Applied Marketing Analytics, No 3(4), pp. 291-297.

7. Spencer, M. (2019). «Just Google It:» Keywords, Digital Marketing, and the Professional Writer, pp. 70-75;

8. Symons, M., Roytman, A., Kirkby, S., Umblijs, A., Srivastava, J., & Williams, M. (2019). U.S. Patent Application No. 10/332, p.42.

9. Scholz, M., Brenner, C., & Hinz, O. (2019). AKEGIS: automatic keyword generation for sponsored search advertising in online retailing. Decision Support Systems, No.119, pp. 96-106.

АДАПТАЦІЯ ЦИФРОВОГО МАРКЕТИНГУ ДО ШТУЧНОГО ІНТЕЛЕКТУ Т. І. Мивідобадзе, професор, Л. Осадзе, М. Сосанідзе, Горійський державний університет (Грузія)

Методи. За останні роки маркетинг досяг точки еволюції, коли адаптація до цифрових тенденцій є важливою. У багатьох ситуаціях платформи, які використовуються для онлайнпросування, містять алгоритми для визначення найкращих комбінацій. Конкретними методами дослідження послугували: аналіз і синтез — під час виявлення нових тенденцій у цифровому маркетингу, зокрема використання ключових слів для сталого бізнесу; класифікацій — для групування інструментів дослідження ключових слів у цифровому маркетингу.

Результати. У статті представлено дослідження, яке висвітлює поточну ситуацію, що склалася у цифровому маркетингу. Продемонстровано, що в сучасній індустрії маркетингу активно зростає нова підгалузь – автоматизований маркетинг, що характеризується включенням голосового пошуку в маркетинг або методи визначення ключових слів. Виявлено найбільш поширені інструменти дослідження ключових слів, показано ефективність їхнього застосування в практичній діяльності. Результати демонструють тенденцію переходу від цифрового маркетингу до інтелектуального маркетингу з використанням штучного інтелекту.

Новизна. Виявлено сучасні тенденції розвитку цифрового маркетингу, виокремлено специфіку його нової форми – інтелектуального маркетингу. Продемонстровано особливості адаптації сучасної маркетингової моделі до штучного інтелекту.

Практична значущість. Розглядається поточний стан штучного інтелекту в маркетингових процесах надається послідовна модель з використанням інтелектуального маркетингового рішення, яке може покращити видимість веб-сайту за допомогою ключових слів.

Ключові слова: штучний інтелект, інтелектуальний маркетинг, автоматизація процесів, ключові слова.

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