PROSPECTS FOR THE USE OF DIGITAL TECHNOLOGIES IN ELECTRONIC COMMERCE

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ABSTRACT

In this article, a number of opportunities related to the use of big data, digital analytics and virtual reality (VR, AR) technologies in electronic commerce are shown and thoroughly analyzed. Several modern approaches to the use of various digital software tools in e-commerce are compared and contrasted. In addition, the authors of the article critically analyze the approaches implemented by several companies to increase the popularity and efficiency of e-commerce and business processes in various forms based on the use of big data and digital analytics methods, and some related issues and offer opportunities.

Key words: digitization, e-commerce, big data, digital analytics, logistics, artificial intelligence, information, VR, AR, cloud network, consulting, e-business

INTRODUCTION

According to the opinions of experts working on digital technologies, in the coming years, 50 billion devices will be connected to the internet on a global scale, with the help of which the volume of data generated will reach 44 trillion gigabytes. Giant flows of such data, or in other words, Big Data (Big Data), are widely used in various sectors of the economy [1]. Therefore, in the near future, Big Data can be considered both a product and a driver and a national property of the digital national economy.

In the current era, the rapid development and penetration of Big Data technologies into all areas requires it to provide users with data protection, and e-business to develop self-centered practical approaches to ensuring targeted development in global competitive conditions [2]. Including, $72 billion has been invested in BDA technology by the state and private banking sector, manufacturing enterprises and services sector, and the state government.

In the near future, we will be able to include the states of China and the United States in the largest markets that process Big Data and business analytics (BDA). The second place is occupied by the countries of the European Union, and the third place is occupied by the countries of the Asia-Pacific region [3]. The BSA organization predicts that the use of Big Data in the economy will give the opportunity to create an amount equal to $15 billion of world GDP by 2030. And according to McKinsey's assessment, the total amount of economic efficiency in this case reaches $5 billion [4].

LITERATURE ANALYSIS AND METHODS

One of the important components of digital technology, the use of Big Data-based technology, which is widely used by companies to increase business efficiency and reduce spending in different areas of business.

Because of the use of Big Data (Big Data) Technology, the logistics company UPS (United Parcel Service), as a result of the application of Big Data, saves millions liters of fuel per year, optimizes routes and increases the speed of commodity delivery [4]. Delivery of shipments is carried out in real time, based on the use of cartographic data, accounting for the size of goods and delivery times, referring to shipping and receiving points. An international company called Thyssen Krupp Elevator for the production of elevators provides uninterrupted operation of its elevators, taking into account the opening of elevator doors, the speed of movement of the cabin, the temperature of the engine and other parameters in real time, and minimizes the costs that go for parking and repair.

More than 200 sensors installed on the **Renault (Lotus) Formula One** sports car collect the state of its various parts during the race and optimize the movements of the racer as a result of its analysis [5]. **The Kaspersky Security Network (KSN)** cloud network has carried out a data collection process on hundreds of million cases of attacks on the worldwide comp, threats and all attempts to damage the computer. In this case, less than a minute passes before the decision is made to receive information about the suspicious object [5]. However, it should also be considered that the active development of Big Data technologies requires the production of regulatory legal acts that clearly indicate the boundaries of the distribution of information related to this area and its protection. It should also be noted that the volume of world- class data is increasing in geometric progression. If in 2011 the number of generated information was 1.8 zettabytes, in 2012 it was 2.8 zettabytes, by now this size is expected to exceed even 45 zettabytes [6].

RESULTS

Big Data is understood not only as the conditional volume of data collected, but also as a complex of services, technologies necessary for processing and storage. The results of comparison of traditional databases and **Big Data** (big data) databases that store medium-sized data are given in the table below [7]:

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Display	Traditional reference bases	Big Data (big data) databases
Data size	Gigabyte to terabyte	Petabyte to zettabyte
Storage method	Centralized	Decentralized
Data structure	Structured	Semi-structured and unstructured
Data storage and processing models	Vertical model	Horizontal model
Data correlation	Powerful	Powerless
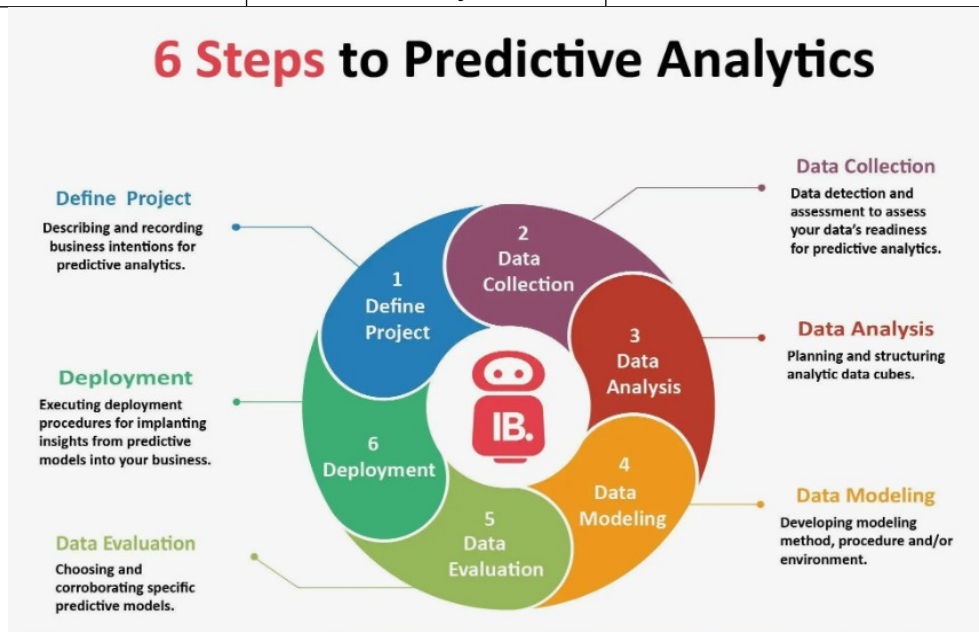
An analysis of **Gartner's Hype Cycle graph**, compiled for the newest technologies, can be considered as self-proof of the interrelationship of economic processes and **Big Data**. As a result of the review of the results, it can be said that **Big Data** Technology has moved from perspective and developing technologies to technologies that are actively being used and has begun to bring good benefits to the economy. So Big Data technologies are not some kind of fashion, but among the technologies without which modern business cannot compete in the market. The consulting firm **McKinsey& Company** claims that **Big Data Technology** has five main areas of use in the economy [8]:

1. Formation of information with the property of "Transparent " for many;
2. Mathematically based management decision making based on Big data;
3. Narrow segmentation of customers, taking into account personal aspirations for commercial activities;
4. Increasing the decision-making rate based on big data at the expense of complex analytics;

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5. Creation and development of products and services of the future generation based on the analysis of Big data;

According to the consulting firm, **Big Data Technologies** provide opportunities for competition and the development of personal enterprises. Even later, large-scale data analysis will remain the foundation for improving production efficiency. For example, it turns out that it is possible to increase the operating profit of a firm even more than 60%, which uses large volumes of data in retail. However, for organizations currently working in one area or another of the economy, the main problem is the shortage of specialists who can analyze **Big Data.** It should also be noted that in e-commerce and economics,

Big Data technologies are not some kind of abstract trend or fashion, but realistically functioning instrumentals. Most organizations use **Big Data Technology** in client-service systems or for the purpose of increasing operational efficiency. Another clear example of **Big Data**'s use in economics is process prediction. For example, **Space know** performs the processing of many images taken from space to determine the price for oil. The algorithms used in this, depending on the change in the appearance of the shadow, determine the amount of oil in the reservoir and, based on this data, find it possible to determine the filling gorge of the largest oil reservoirs in the World [9].

The possibilities of using **Big Data** are even greater when evaluating current cases of economic processes, including e-commerce. Simple statistics, on the other hand, do not allow for less accurate information in such cases, and the assessment process is often seen in cases where the positive side has changed. **Big Data Technology** has also been found to provide significant economic benefits in modern logistics with relevance to e-commerce. According **Google** expert **Eric Scmidth**, the most fundamental area of application of Big Data technology is insurance activities.

Companies offering insurance services collect information about different people and develop personal insurance plans based on this information. In addition to the above, we will never be mistaken if we say that **Big Data** technology is an equipment capable of radically changing the process of evaluating the indicators of a number of economic processes. That is why **Big Data** technology is now having a huge impact on increasing competition in e-commerce as well as increasing production volumes.

People who have a good understanding of the field of digital analytics are a necessary specialty for any type of company. Especially after in business has switched to the internet system, such a specialty becomes much more important. We will try to consider below what skills a digital analyst needs to have in order to

be an applicant in the labor market. If a company cannot run a business on-line, it uses the network as its primary communication channel with its target audience. In this, the business will need professionals who can direct marketing, analyze data and provide development advice. But at the same time, the volume of secular data is increasing at a very rapid pace. Worldwide data volumes have been recorded to increase by around 30% each year. Just like that, companies try to find professionals who can analyze large amounts of data and extract certain conclusions in the field that take advantage of it.

DISCUSSION

It can be summed up from the above that it is required that specialists involved to e-commerce and electronic business activities should have the knowledge, skills and qualifications in **Google Analytics** and **Yandex**. In addition to metrics, should also be able to work in **Tag Manager,** should be able to use **A/B** testing equipment, it is necessary to understand the data visualization equipment – **Data Studio, Tableau, Power BI, i**t is necessary to know how to use competitive analysis equipment **Similar Web, SEMrush,** - should be able to apply social media monitoring systems brand **Analytics, IQ Buzz, i**t is also required to be able work in **JavaScript** programming languages, to be able to work with **Big Query,** you will need to be able to understand **SQL.**

However, at the moment it is also not enough to know these products. It is also of great importance to know which methods to use in which case and to implement it effectively. It is necessary to know how to build a system of knowledgeable digital-analytical metrics, evaluate pointers, understand the aspirations of users, be able to combine and interpret the data obtained, look at the product from the point of view of users, create hypotheses, carry out scientific research and testing, and prove its work on the basis of the data obtained. The use of **Digital analytics** methods should be known by both the internet marketer and the management.

It is necessary to create an interactive **dashboard** for the leader, allowing him to check Daily reports. It will be of great importance for the management to understand why such information is needed. It is for this reason that large, medium and small business officials come to digital analytics courses and learn to be able to analyze the processes in their companies and independently put issues in the internet marketer. Try to think about what issues should be solved based on the data targeted through analytics. If questions arise about technical issues, you can contact the Google Analytics forums or Yandex Metrical clubs. It is more complicated for you to succeed the first time, but later, as your experience

increases, your success also goes up. In this regard, we can cite several tips in below:

- *Find a mentor who can teach this work* – it is also possible that it is an expert in the field or a group on **Facebook** where it will be possible to ask questions and verify hypotheses.
- *In digital analytics, regularly check the novelty of your knowledge*-because this area is developing rapidly, new trends are emerging, the equipment of systems is changing. It is also useless to study last year's webinars from books, because they are already outdated. If teachers become working professionals, it will be possible to get new information from them.
- *Choose for yourself some kind of stimulus* – it can be, for example, an internship abroad, a promotion of your career or work on a new project. Knowing why knowledge is needed by you also allows you to master it well.
- *Strive to receive education in groups* – the ability to find like-minded people in a field can help to get a full-fledged knowledge. Working in the team will be very interesting and fruitful. The group will always have one leading person - (driver), who is very interested in work and motivates others. Group participants exchange information not only with the teachers, but also with the other participants.

Offer a concrete plan on the floor, which arises from the main issues of the company's business. For example, try to understand the reasons why users leave the company site and come up with hypotheses about it and check them out. If you can find reasons for this, bring it to life quickly. Bring to the management that all this work can be done with minimal involvement of those who have developed the system. If you can explain that real benefits can be obtained from your plan, any leader will be forced to take into account your proposals. You can find one such course on the following site: tceh.com/edu/digital-analytics**.**

Modern digital analytics requires knowledge of programming languages, machine learning algorithms, and data science**.** Currently, business is in demand professionals who are able to understand the demand for analytics, systematically understand the process and express it on a digital basis and have strategic skills. That is why the transition from simple quantitative pointers (number of participants, number of clicks, and number of saccades) to more extensive computational pointers (user satisfaction, or their experience) is being observed. Business requires not only analysis, it also needs a forecast. For business, assistive

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analytics (prescriptive analytics), which shows the user the optimal execution path of the issue on the basis of data, has also become relevant.

CONCLUSION

The competence of market participants, including those who perform services, is growing more and more. But **Yandex**, which compares data from **CRMs** and data from web analytics to large advertisers. **Metrics** and **Google Analytics** systems lack standard reporting. There is also a great demand for systems that collect and reproduce information about the initial actions of users of the site. Another equipment that can solve such a task is the integration of **OWOX BI** Smart Data with **Big Query** in **Google Analytics**. As a result of these solutions, it became possible to take into account all visits of the user from his first visit to his intended action, as well as to collect the full information about him through the means of his unique identifier.

Another trend in this area is the increase in mobile traffic and the development of mobile analytics. **Google** introduced **Firebase Analytics** in 2016, while Yandex has developed **AppMetrica**, with **AppsFlayer** and similar systems also evolving. Working with mobile traffic is much more complicated than with the web, in which the necessary applications are installed from **Google Play** or **AppStore** stores. Other trends in **Digital analytics** include the ever-increasing automation of data collection and the fact that digital analytics is becoming the analytics systems architect.

Therefore, in digital analytics, a self-vaguely contradictory arises: the work of digital analytics continues to automate as it goes, but the issue or problems that need to be addressed to it are still imposed by a person. Because this work cannot be done at the moment. In this regard, it is possible to recall an incident that occurred at the American communications operator **Sprint**. This company ceases to contract with customers whose cooperation seems unprofitable. One of their clients complained about the frequent interruption of feedback in the service group. Due to the lower level of communication quality, there were more interruptions on the line.

When the company analyzed the number of calls to the call-centre for this client, they were able to calculate the value of their processing and income and terminate the contract with the unprofitable client. But the employees of **Sprint** did not analyze the reason why the client addressed them, and therefore did not solve the problem of the quality of communication. After a period of time, the company, analyzing its forum, found that the business leader of this client, transferred all his corporate names to another communications operator. So it turns out that the

Sprint company was deprived of a number of customers who were making a profit, relying on the data provided.

Being the designer and architect of the digital-analytical system in the current era, this technology must be complemented by human thinking, which fills it with other aspects of real life. As a result of these considerations, we can also highlight the following trends in the development of digital analytics:

➢ Transition from descriptive analytics to predictive and instructional analytics.

➢ When evaluating, it is necessary to take into account not only sales, but also the behavior and profile of the user.

➢ The most highly valued skills in this area can include systematic and strategic thinking elements.

The use of Virtual and augmented reality (**VR, AR**) technologies in electronic trading can be an excellent tool for dramatically increasing its effectiveness. Let's list below some of our tips on how to effectively use **VR** and **ARs** in e-commerce:

1. *Display products in 3D*: use VR and ARs to give customers a 360 degree view of your products. This will help them see the product from different angles and to some extent be satisfied with it before making the appropriate decision to purchase the product.

2. *Product testing implementation*: for products such as clothing, jewelry or cosmetics, allow customers to test them virtually using AR. This will help them understand the appearance of the product in a remote way, without leaving their home.

3. *Achieve improved product information*: use VR and ARs to display additional information about your products, such as product features, specifications, and customer reviews. This helps customers make informed decisions about their purchases.

4. *Perform interactive experiences:* try using VR and ARs to create interesting and interactive experiences that customers will remember. For example, you can use VR and ARs to create virtual tours of your products or display them in a unique way.

By using convincing methods and tools to promote the benefits of the virtual environment in electronic trading, you can increase the activity of your customers and significantly increase the volume of sales of your business.

REFERENCES

1. Gulomov S.S. etc. Blockchain technologies in the digital economy. Toshkent: Publishing House "Economics-Finance", 2019. 366 pp.

2. Ayupov R.H., Tursunov S.Q. Digital technology. Tutorial. Tashkent:" Lesson Press", 2023. 464 pp.

3. Sabirjanov R.A. etc. Prospects for the development of modern digital technologies – monograph. Tashkent: Publishing House" Hilol Media", 2022. 202 pp

4. John E. Roberts. E-Commerce and the Digital Economy, (2022)

5. Libby Colman. "The Future of E-Commerce: Exploring Emerging Trends,", Forbes (2022)

6. Jenna Brown. "Changing Trends in E-Commerce and How it Impacts Businesses," Jenna Brown, Inc. (2022)

7. Avinash Kaushik. "Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity". published in 2009 by Sybex.

8. Neil Patel. "How to Use Google Analytics: A Complete Guide". published on the Neil Patel blog on August 3, 2020.

9. Sam Akbari. "The Top 5 Benefits of Digital Analytics". Published on the website "Business 2 Community" on March 12, 2020.