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DIGITAL SOCIOLOGY: A MODEL FOR FORECASTING SOCIAL TRENDS BASED ON BIG DATA AND ARTIFICIAL INTELLIGENCE

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The study presents a methodological approach to forecasting social trends through the integration of big data and artificial intelligence within the contemporary stage of digital sociology. The core argument is that rapidly changing social processes cannot be sufficiently explained by traditional statistical methods alone, which creates a need for new models that combine big data analytics with the capabilities of artificial intelligence algorithms. The research proposes a three-pillar model consisting of data construction, processing and analysis, and interpretation and forecasting stages. The data construction phase focuses on structuring and ensuring the reliability of information collected from diverse sources, including social networks, media platforms, official statistics, and surveys. During the processing and analysis stage, natural language processing, machine learning, and deep learning techniques are employed to identify latent social patterns and behavioral models. The final stage involves linking the findings to theoretical frameworks and forecasting future social processes. The article also addresses key challenges such as the bias of artificial intelligence detectors and issues related to data quality.

Keywords: digital sociology, big data, artificial intelligence, forecasting, social trends.

INTRODUCTION

In the modern era, the orientation of digital sociology toward the prediction of social trends on the basis of big data and artificial intelligence derives its relevance from several factors. Social media, online platforms, and digital technologies have become an inseparable part of daily life, directly influencing the behavior of society, political participation, information consumption, and the formation of public opinion. In this environment, the flow of information is massive, rapid, and complex; tracking it through traditional methods becomes difficult. Artificial intelligence algorithms, by processing big data, make it possible both to monitor social changes in real time and to predict the direction of future processes probabilistically. For this reason, such an approach carries strategic significance both for the enrichment of sociological theories and from the standpoint of state policy, security, information management, and social stability.

Serious scholarly research has been conducted in this field. For instance, the study by Leitgöb et al. (2023) provides a theoretical and methodological foundation for the use of big data and machine learning in sociology [11]. Garip and Macy (2025) systematically analyze the current applications and future prospects of machine learning in sociology [7]. Molina and Garip (2019) demonstrate how machine learning methods can be applied in sociological research and how they open up new empirical possibilities [13]. Verhagen (2024) examines the integration of machine learning into sociological model construction, combining theoretical modeling with technological approaches [19]. Heiberger (2022) demonstrates the possibilities of predicting gender and uncovering research



tendencies through machine learning [9]. Borch and Min (2022) analyze the explainability of machine learning algorithms from a sociological perspective, explaining new forms of human-machine interaction [5]. The overall significance of these studies lies in the fact that they expand the possibilities of traditional theoretical and empirical approaches in sociology, creating conditions for the study of deeper, more complex, and multidimensional social processes through big data and machine learning. At the same time, this work makes an important contribution to the future methodological transformation of the field through the integration of artificial intelligence tools into sociological model construction, questions of explainability, and the reliability of empirical research.

The aim of our study, in turn, is to construct a methodological model for the real-time tracking of social trends and the prediction of future directions of development by integrating big data and artificial intelligence algorithms in digital sociology.

MAIN PART

Digital Sociology As a Current Field of Modern Sociology

Digital sociology is a new direction of contemporary sociological thought, having taken shape against the backdrop of the rapid development of digital technologies and artificial intelligence (hereinafter AI). Alongside the application of sociological theory and methods to the study of the digital environment, this concept also encompasses the transformation of digital technologies themselves into objects of sociological analysis. In other words, digital sociology is concerned both with the study of new social spaces such as the internet, social media, and digital platforms, and with the investigation of the impact of these spaces on the values, relationships, and social structures of society. This concept entered sociological discourse as a result of the global spread of the internet at the end of the twentieth century and the transformation of social media platforms into an inseparable part of life at the beginning of the twenty-first century, and at a later stage it was further strengthened by the capabilities of big data and artificial intelligence [1]. The intellectual roots of digital sociology trace back to the 1980s and 1990s. During this period, along with the widespread expansion of the internet, sociologists began to work with concepts such as "virtual community," "online communities," and "digital culture." The first studies were conducted mainly on internet forums, electronic mail groups, and early online networks. At this stage, digital sociology was characterized more by the adaptation of classical social theories (for example, Habermas's theory of the public sphere or Giddens's theory of structuration) to the digital plane. As digital technologies created new forms of social interaction, sociologists sought to expand the methodological base in order to track and classify these changes [2].

From the 2000s onward, the rapid rise of social media platforms (Facebook, Twitter, YouTube, and at a later stage Instagram and TikTok) launched a new stage of digital sociology. During this period, the concept of "big data" came to occupy a central position in sociological research, since the behavior, comments, and connections of millions of users provided unprecedented empirical material on a scale never seen before [4]. In the 2010s, digital sociology began to be recognized as a distinct field in its own right. At this stage, not only the study of the online environment but also issues such as the impact of artificial intelligence algorithms on society, digital inequality, information security, cyberculture, and online political participation came to the fore [3]. To summarize, digital sociology became a broad direction that requires not only the application of new methods but also the reinterpretation of sociological theories.

Today, many leading universities around the world are developing digital sociology as an independent field of specialization. For example, the London School of Economics offers programs in digital social research, focusing on social network analysis and digital economic relations. In the United States, Stanford and Harvard universities study issues of online political mobilization, disinformation, and digital democracy within the framework of digital sociology. At the University of Sydney in Australia, specialized centers for digital ethnography and internet cultures are in operati-



on. Digital sociology also exists as a separate doctoral field at Stockholm University and Umeå University in Sweden. These developments, in turn, demonstrate that digital sociology is already a global academic field, developed along different empirical directions in various regions. Digital sociology employs classical sociological methods in combination with new technologies. The most widely applied methods here are social network analysis, the statistical processing of big data, natural language processing (NLP), digital ethnography, web scraping, and text mining. These approaches encompass both quantitative and qualitative methods and make possible the multidimensional analysis of behaviors observed in the digital environment. By means of these methods, a broad range of topics is investigated, including the formation of public opinion, the dynamics of disinformation and propaganda, as well as digital identities and the online mobilization of social movements, along with changes in patterns of cultural consumption and the digital behavioral models of young people. In addition, digital inequality, the relationship between gender and technology, and the impact of artificial intelligence on the labor market and on changes in social structure are also at the center of digital sociology's attention.

The Capability of Digital Sociology: On the Example of Artificial Intelligence and Big Data

Artificial intelligence and big data, as two inseparable concepts, occupy an important place in contemporary social research. Big data refers to the large-scale and highly varied information gathered from diverse sources – social networks, electronic archives, the digital databases of state and non-state institutions, as well as the everyday online activities of users. However, owing to the volume and complexity of this data, processing it through traditional statistical methods is virtually impossible. It is precisely at this point that artificial intelligence "enters the stage": AI algorithms, by processing big data, make it possible to extract meaning from it, to uncover relationships among various variables, and to construct predictive models. In other words, AI is the principal technological instrument that reveals the potential of big data, and for this reason their connection is built upon a direct and mutual interdependence. In digital sociology, AI and big data open new possibilities in the measurement and explanation of social phenomena. For example, in the analysis of social network dynamics, big data consisting of the posts and comments of millions of users is collected, while artificial intelligence is used to determine the trajectory of the formation of public opinion from this data. This, by combining both quantitative and qualitative analysis, makes it possible to process information on a scale that classical sociological methods could not encompass.

At present, in sociological research artificial intelligence plays an important role in the detection of disinformation, since by processing big data it makes it possible to track the dynamics of the spread of fake news. By analyzing the semantic and structural features of content on social networks, AI algorithms are able to identify manipulative posts in real time. This, in turn, creates new research possibilities for sociology from the standpoint of protecting public opinion, information security, and the transparency of democratic processes. The vast majority of research conducted worldwide in this analogous field demonstrates how artificial intelligence and big data play an interactive role in social media and disinformation networks. For example, Shao et al. created the "Hoaxy" platform and analyzed the structure and spread dynamics of disinformation circulating on Twitter; as a result, it was revealed that fake news began to spread 10–20 hours ahead of fact-checking and that the core of disinformation consisted only of active users [16]. Another study, conducted by Joshi et al., demonstrates the role of social bots and intra-group connections in the spread of disinformation; fact-checking methods lag further behind, and the central nodes of fake news prove to be more active [10]. In addition, Drolsbach and Pröllochs, in their study, analyzed 91,452 disinformation messages on the X platform (formerly Twitter) by separating them into "AI-sourced" and "human-sourced." There it was determined that disinformation generated by AI has a higher probability of going viral, is distributed more from small accounts, and is more oriented toward entertainment in terms of content. This study shows that the characteristics of disinformation created by AI

are different, and that these differences open new possibilities for social network analysis [6]. Additionally, in another article by Joshi et al., explanatory methods such as the Domain Adversarial Neural Network (DANN) and LIME were used for the analysis of disinformation across various platforms. This approach is aimed at enhancing artificial intelligence's capacity to detect disinformation in different social media environments [10]. The results of this type of research show that artificial intelligence is not content merely with detecting existing disinformation, but also becomes an important instrument for predicting the trajectory of its spread in the future. In digital sociology, prediction means determining the direction of social processes in advance, and here the power of AI algorithms manifests itself in processing big data to determine the line of development of trends. This is invaluable both in the defense of public opinion against manipulation and in the preservation of the stability of democratic institutions, because foreseeing among which groups and at what speed disinformation will spread creates a strategic advantage from the standpoint of social policy and information security. The significance of this method lies in the fact that social policy, state governance, and public organization can be built upon predictions. In other words, prediction grants sociology not only a retrospective but also a prospective outlook. With the application of artificial intelligence, prediction in digital sociology becomes more precise and reliable. This is because AI algorithms, by using big data, are able to uncover invisible relationships among different social variables. For example, the probability that rising messages of discontent on social networks in a given country will turn into political protests can be predicted. This creates conditions for obtaining advance information about social stability, public security, and even electoral behavior. In a broader sense, predictions carried out with AI support are able to display a general map of social trends. Long-term social trends such as demographic changes, urbanization processes, the transformation of young people's value and identity orientations, and changes in patterns of cultural consumption are modeled by means of AI.

A Model for the Prediction of Social Trends: The Integration of Big Data and Artificial Intelligence in Digital Sociology

In the contemporary era, one of the most important challenges of sociological research is the timely tracking of rapidly changing social processes and the prediction of the direction in which they will develop in the future. In an environment where the abundance of information and digital traces is increasing rapidly, traditional methods are not sufficient on their own. In this respect, the potential of big data and the processing power of artificial intelligence algorithms bring to the fore an integrative prediction model, which represents a new approach in sociology. By means of such a model, the dynamics of public opinion on social networks, the direction of media discourses, and changes in statistical indicators are analyzed within a single analytical framework and, by being connected to theoretical foundations, a map of future social trends is formed. This can be seen visually in Figure 1:

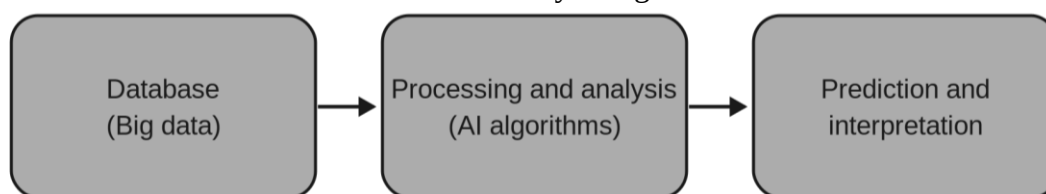


Fig. 1. The Prediction of Social Trends

As can be seen from the figure, the first column of the model designed for the prediction of social trends is the database. Here, the collection of big data from various sources plays the principal role: content shared on social networks, online media resources, the statistical indicators of state institutions, and survey results. At this stage, the main issue is not merely the quantity of data, but its quality, reliability, and representativeness. This is because data coming from social networks may sometimes be of a manipulative character, official statistics may have certain limitations, and



surveys may face methodological errors. For this reason, the collection of data must be carried out not only in terms of quantity but also in terms of the diversity and quality of sources.

The construction of the database can be carried out through a combination of various methods. First of all, large volumes of data are collected from social networks and media platforms by means of web scraping and API integrations. Subsequently, methods of data cleaning and normalization are applied to identify and separate out duplicate, incomplete, and manipulative information. Statistical weighting and sampling methods are used to increase the representativeness of official statistical data and surveys. For the assessment of quality, reliability checks, comparison of sources, and triangulation are applied. Thus, as a result of the integration of various technical and methodological approaches, a database that is both broad and reliable is formed (Table).

Table

Stages of Constructing the Database

Stage	Explanation
Web scraping and API integration	Web scraping extracts data from the open pages of websites, while an API makes it possible to obtain structured data through the official interface provided by the platforms.
Data cleaning and normalization	This is the process of eliminating errors, duplicates, and gaps in the collected data and converting it into a standard format. This ensures that data coming from various sources is unified within the same units of measurement and structure.
Statistical weighting and sampling	Weighting adjusts the distribution of data to conform to real demographic indicators, while sampling means the selection of representative groups from a broad population.
Comparison of sources and triangulation	This is a method of verifying reliability by comparing data obtained from different sources on the same topic. In particular, triangulation, by combining results coming from different methods and sources, makes it possible to obtain a more precise and reliable result.

The second column is the stage of processing and analysis, in which artificial intelligence algorithms come into play. For example, by means of natural language processing (NLP), the semantic analysis of texts circulating on social media is carried out, and emotional tone, thematic orientations, and discourse structure are determined. Machine learning models, in turn, are able to uncover hidden patterns among millions of observations, identify behavioral models, and group them. At this stage, both quantitative analysis (the statistical analysis of digital trends) and qualitative analysis (the semantic interpretation of public discourse) are carried out in parallel. Thus, rather than being content merely with data collection, the internal logic of social processes is revealed through the analytical capabilities of artificial intelligence, and the stage of preparation for prediction is completed (Figure 2).

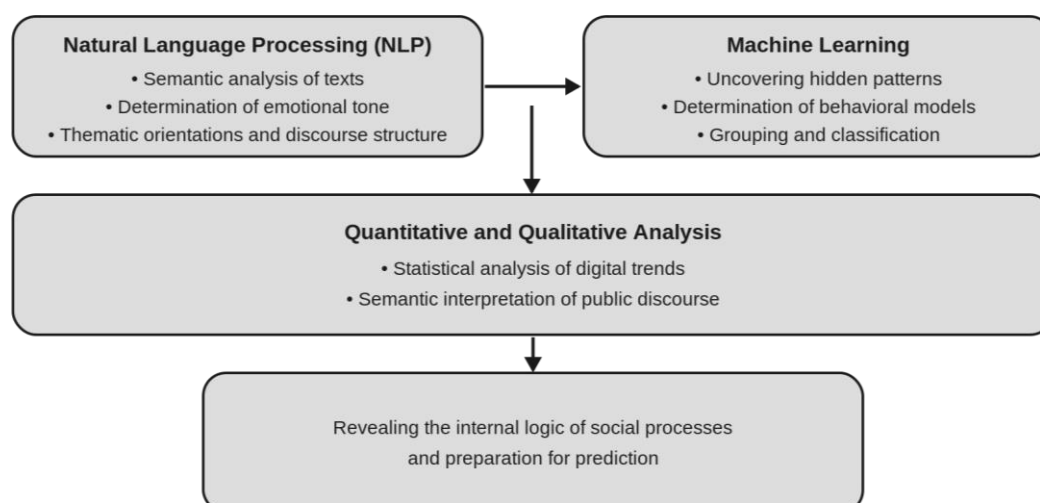


Fig. 2. The Processing and Analysis Stage: Artificial Intelligence Algorithms

In the processing and analysis stage, the significance of artificial intelligence is even greater. Traditional statistical programs (SPSS, PSPP, JASP, etc.) are very useful for the analysis of structured and relatively small-volume data, but they face limitations in managing the complexity and volume of big data. The millions of observations collected from social networks, media platforms, and various digital sources carry non-linear relationships, multidimensional patterns, and layers of semantic meaning that are difficult, and sometimes impossible, to detect through traditional statistical methods. Artificial intelligence algorithms, by contrast, processing both quantitative and qualitative big data simultaneously, are able to uncover hidden patterns, learn behavioral models, and, with their predictive capability, indicate the direction of future social trends more precisely. At the same time, although the R program offers powerful tools for processing big data, it has limitations in processing very large-volume, real-time streaming data and in constructing complex deep learning models. Artificial intelligence algorithms, by contrast, make it possible to uncover non-linear relationships in this type of data and to produce predictions with higher precision.

Among the tools that can be most widely used for artificial intelligence in digital sociological research are libraries such as *TensorFlow*, *PyTorch*, *scikit-learn*, *NLTK*, and *spaCy*. These tools create broad possibilities for processing big data, analyzing natural language, and constructing predictive models.

The final column is the prediction and interpretation stage, in which the results generated by artificial intelligence are linked to sociological theories. The prediction stage does not merely yield technical results; it also requires their scientific interpretation. For example, predictions related to electoral behavior are compared with the theory of political participation, while new behavioral models of young people on social networks are compared with theories of socialization. At this stage, predictions do not only indicate the probability of future events, but also reveal the social causes behind these events.

From a mathematical standpoint, the prediction model serves to determine the direction in which social trends may develop in the future. The basic logic here is as follows: features extracted from big data (X) collected from various sources are transmitted to artificial intelligence algorithms, and as a result the probability or intensity (y) of the occurrence of a certain event is calculated. For example, electoral behavior, the probability of protest actions, or the speed at which disinformation spreads can be described by such models. For this purpose, time-series models (ARIMAX, VAR), non-linear diffusion models (the Hawkes process, SIR-type network models), and machine learning approaches (logistic regression, gradient boosting, neural networks) are used. Mathematically, the



model can be expressed in the form $y_{\{t + \Delta\}} = f(X_{\{t - k:t\}}) + \varepsilon$ where f denotes the functional relationship constructed by artificial intelligence and ε denotes the random error.

In addition, it is not sufficient for the prediction merely to yield technical results; its interpretation through sociological theories is essential. For example, when the probability of protests is calculated by means of logistic regression or survival models, these results are compared with resource mobilization theory or the theory of political participation. When information cascades on a social network are tracked with the Hawkes process, the results are interpreted in the context of diffusion theory. Thus, the prediction model does not merely describe future events probabilistically, but also reveals the social causes behind them and provides their interpretation from a theoretical standpoint.

The indicators used in the mathematical model are expressed by means of a time index, and this clarifies the basic mechanism of prediction. y_t denotes the outcome observed at time t , for example, voter activity on a particular day or the intensity of public protests. $X_{\{t - k:t\}}$, in turn, is

the set of data collected during the period from $t-k$ to t ; this includes indicators such as social media posts, official statistics, and survey results, that is, the model takes as its basis the data coming from a past window. $y_{\{t + \Delta\}}$, in turn, expresses the outcome to be predicted at a time Δ in the future,

for example, it indicates the direction in which social trends will develop one week or one month later. This approach is generalized in the form $y_{\{t + \Delta\}} = f(X_{\{t - k:t\}}) + \varepsilon$.

Challenges and Problems

The main problem or challenge in the model is that social processes are not stable and simple, but complex, multidimensional, and dynamic. That is, the function f in the formula $y_{\{t + \Delta\}} = f(X_{\{t - k:t\}}) + \varepsilon$ is in real life very often not linear; on the contrary, it consists of interconnected and rapidly changing factors such as social network effects, political events, economic changes, and cultural factors. As a result, two major difficulties arise. The first is the quality and diversity of data, in that social media, official statistics, and survey data may be contradictory both in terms of reliability and in terms of differences of measurement. The second is the complexity of the prediction function, in that traditional statistical tools have difficulty in fully reflecting these multidimensional and non-linear relationships, and for this reason the use of artificial intelligence becomes necessary. In other words, the main problem is both the construction of a reliable database and the conversion of this data into a prediction model that corresponds to real social mechanisms.

The second challenge is related to artificial intelligence detectors. The use of artificial intelligence detectors has become widespread in recent years, and the aim is to safeguard academic integrity. However, empirical evidence shows that these tools frequently produce erroneous results. For example, in some cases texts written by humans are mistakenly assessed as the product of AI. Errors of this type have gone so far that even the United States Constitution has been flagged as a text written by artificial intelligence [15]. A more serious problem is that the texts of authors who use English as a second language, and especially the writings of scholars from the countries referred to as the Global South, are systematically perceived as AI writing. Such misidentifications are not merely a technical defect; they can also cast a shadow over the scholarly credibility of certain groups.

The research that has been conducted also confirms this. A study led by Stanford University showed that more than half of the essay samples of students whose native language is not English were assessed by detectors as AI writing [17, 18]. Whereas more than 90 percent of the writings of students whose native language is English were accepted as "human writing" [12]. These results clearly show that the algorithmic approach of the detectors automatically likens a simple or less idiomatic style of expression to machine language.

Recent research shows that artificial intelligence text detectors exhibit a systematic bias in mistakenly assessing text written by humans as AI writing. For example, in 2023 the dissertation of a Nigerian doctoral student was erroneously flagged by detectors as a text produced by artificial intelligence [14]. One of the most well-known examples of such incidents occurred at the University of Minnesota, where a Chinese doctoral student, Haishan Yang, was expelled from his program on suspicion that his examination answers had been written with AI. The professors, running his writings through a detector, accepted the indicator of "high AI probability" as proof and, despite the student's objections and even the tool's showing contradictory results on his own writings, did not change the decision [8]. As a result, Yang lost both his doctoral program and his visa to remain in the United States.

One of the main reasons for this "bias" lies in the operating mechanism of the detectors. They mainly use a measure called "perplexity": they assess the degree to which the words and expressions of a text can be predicted. In a text with a simple and repetitive language structure, perplexity is low, and such writings are automatically flagged as AI writing. This, in turn, puts at risk the writings of authors who write in a language other than their native one, because of the simpler grammar and limited lexical repertoire they use. The paradox is that advanced AI systems such as ChatGPT, because they are able to produce multilayered, idiomatic, and fluent English-language content, are accepted by detectors as human writing.

The model for the prediction of social trends shows that big data and artificial intelligence algorithms are a powerful instrument for tracking social processes, but the one-sidedness of AI detectors poses a serious challenge to the reliability of these systems. If the predictions produced by this model are mistakenly labeled as "AI writing," this, in turn, will deal a blow both to the correct interpretation of the data and to the preservation of trust in the academic environment. Thus, the application of the model must not be limited to prediction alone, but must also take into account the algorithmic injustice created by artificial intelligence.

CONCLUSION

Thus, as a result of our study, we can state that digital sociology, having taken shape as an inseparable direction of modern sociology, requires both the reinterpretation of theoretical frameworks and the application of new methodological approaches. Its development shows that the tracking of public opinion, disinformation, and patterns of digital behavior by means of big data and artificial intelligence makes sociological analysis more multifaceted and dynamic. This field, developing on a global scale, carries strategic significance not only on the academic plane but also for social policy, information security, and public governance.

In this respect, the integration of artificial intelligence and big data makes it possible in sociology not only to explain existing social phenomena but also to foresee their future trajectory. This, in turn, opens new scholarly and practical possibilities both for the prevention of disinformation and for the prediction of long-term social processes such as political participation, cultural transformation, and social stability.

Within this framework, the significance of the three-column model proposed in the article lies in the fact that the construction of the database serves the reliable structuring of big data collected from various sources, the processing and analysis stage serves the uncovering of hidden social patterns through artificial intelligence algorithms, and the interpretation and prediction stage serves the formation of foundations for explaining the future development of social trends by linking these results to theoretical frameworks.

Big data and artificial intelligence open important possibilities in the tracking and prediction of social processes, but their application is limited by the quality of data and the complexity of non-linear social mechanisms. In addition, the one-sidedness of artificial intelligence detectors creates an additional risk for academic credibility and public trust, and without taking this problem into account, the application of the model cannot be considered sufficient.



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RƏQƏMSAL SOSIOLOGİYA: BÖYÜK VERİLƏNLƏR VƏ SÜNİ İNTELLEKT ƏSASINDA İCTİMAİ TENDENSİYALARIN PROQNOZLAŞDIRILMASI MODELİ

C.Q. Cabarov

Tədqiqat rəqəmsal sosiologiyanın müasir mərhələsində böyük verilənlər və süni intellektin inteqrasiyası əsasında ictimai tendensiya­ların proqnozlaşdırılmasına yönəlmiş metodoloji bir yanaşmanı təqdim edir. Əsas ideya ondan ibarətdir ki, sürətlə dəyişən sosial proseslər ənənəvi statistik metodlarla kifayət qədər izah edilə bilmir və bu səbəbdən, böyük verilənlərin analizi ilə süni intellekt alqoritmlərinin imkanlarını birləşdirən yeni modellərə ehtiyac yaranır. Tədqiqat çərçivəsində üçsüturnlu bir model irəli sürülür: məlumat bazasının formalaşdırılması, emal və analiz, həmçinin interpretasiya və proqnozlaşdırma mərhələləri. Məlumat bazası müxtəlif mənbələrdən (sosial şəbəkələr, media platformaları, rəsmi statistika və sorğular) toplanan məlumatların strukturlaşdırılması və etibarlılığının təmininə əsaslanır. Emal və analiz mərhələsində təbii dil emalı, maşın öyrənməsi və dərin öyrənmə üsulları tətbiq edilərək gizli sosial nümunələr və davranış modelləri aşkarlanır. Sonuncu mərhələ isə nəticələrin nəzəri çərçivələrlə əlaqələndirilməsini və gələcək ictimai proseslərin proqnozlaşdırılmasını nəzərdə tutur. Məqalədə həmçinin süni intellekt detektorlarının birtərəfliliyi və məlumatların keyfiyyət problemi kimi çağırışlara diqqət çəkilir.

Açar sözlər: *rəqəmsal sosiologiya, böyük verilənlər, süni intellekt, proqnozlaşdırma, ictimai tendensiya­lar.*

ЦИФРОВАЯ СОЦИОЛОГИЯ: МОДЕЛЬ ПРОГНОЗИРОВАНИЯ ОБЩЕСТВЕННЫХ ТЕНДЕНЦИЙ НА ОСНОВЕ БОЛЬШИХ ДАННЫХ И ИСКУССТВЕННОГО ИНТЕЛЛЕКТА

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Исследование предлагает методологический подход к прогнозированию общественных тенденций на современном этапе развития цифровой социологии на основе интеграции больших данных и искусственного интеллекта. Основная идея заключается в том, что быстро меняющиеся социальные процессы не могут быть адекватно объяснены исключительно традиционными статистическими методами, в связи с чем возникает необходимость в новых моделях, сочетающих анализ больших данных с возможностями алгоритмов искусственного интеллекта. В рамках исследования выдвигается трехкомпонентная модель, включающая этапы формирования базы данных, обработки и анализа, а также интерпретации и прогнозирования. Формирование базы данных основано на структурировании и обеспечении надежности информации, полученной из различных источников, таких как социальные сети, медиа-платформы, официальная статистика и опросы. На этапе обработки и анализа применяются методы обработки естественного языка, машинного обучения и глубокого обучения для выявления скрытых социальных закономерностей и моделей поведения. Заключительный этап предполагает соотнесение полученных результатов с теоретическими рамками и прогнозирование будущих общественных процессов. В статье также рассматриваются такие вызовы, как односторонность детекторов искусственного интеллекта и проблемы качества данных.

Ключевые слова: *цифровая социология, большие данные, искусственный интеллект, прогнозирование, общественные тенденции.*