



## Correspondence

Banchenko Denis Yurievich

CEO & Founder, Independent Research Group Advanced Scientific Research Projects & Association of Sleep Research Projects, Baykonur Kazakhstan

E-mail: [denisbanchenko@asrp.tech](mailto:denisbanchenko@asrp.tech)ORCID: [0000-0002-1286-2981](https://orcid.org/0000-0002-1286-2981)

- Received Date: 21 June 2024
- Accepted Date: 30 June 2024
- Publication Date: 4 July 2024

## Keywords

states, predictions, forecasting, event, Banchenko-algorithm, Banchenko-mnemonic synchronization, Banchenko-technology, Black Rock, Aladdin, GFS, Global Forecasting System.

## Copyright

© 2024 Authors. This is an open- access article distributed under the terms of the Creative Commons Attribution 4.0 International license.

# Forecasting Social, Geopolitical, and Economic Events Using the 'Banchenko-Technology'

Banchenko Denis Yurievich<sup>1</sup>, Burilova Tatyana Viktorovna<sup>2</sup>, Siberia (Nekhaev) Igor Nikolaevich<sup>3</sup>, Mutsalkhanova-Yushchenko Olena Davletkhanovna<sup>4</sup>, Lev Konstantinovich Shishkin<sup>5</sup>, Mykhailo Mykhailovich Kapustin<sup>6</sup>, Irina Nikolaevna Bukach<sup>7</sup>, Anna Sergeevna Budanova<sup>8</sup>, Tatiana Yuryevna Krest`Yaniniva<sup>9</sup>, Irina Vladimirovna Grivtsova<sup>10</sup>, Vadim Stanislavovich Kazakov<sup>11</sup>, Vlada Bilovodenko<sup>12</sup>, Savelev Ivan Viktorovich<sup>13</sup>, Ilya Sergeevich Blohin<sup>14</sup>

<sup>1</sup>CEO & Founder, Independent Research Group Advanced Scientific Research Projects & Association of Sleep Research Projects, Baykonur Kazakhstan

<sup>2</sup>CFO, Independent Research Group Advanced Scientific Research Projects & Association of Sleep Research Projects, Nicosia Republic of Cyprus

<sup>3</sup>Head of Respiration Science Research, Independent Research Group, Advanced Scientific Research Projects & Association of Sleep Research Projects, Hawaii, United States

<sup>4</sup>CVO, Independent Research Group Advanced Scientific Research Projects & Association of Sleep Research Projects, Nottingham, United Kingdom

<sup>5</sup>CSO, Independent Research Group Advanced Scientific Research Projects & Association of Sleep Research Projects, Orenburg, Russian Federation

<sup>6</sup>Co-Founder & CTO, of Advanced Scientific Research Projects & Association of Sleep Research Projects, Berlin, Germany

<sup>7</sup>Head of Research Department of Human Resources Restoration, of Advanced Scientific Research Projects & Association of Sleep Research Projects, Nicosia Republic of Cyprus

<sup>8</sup>Co-Founder & CCO, Advanced Scientific Research Projects & Association of Sleep Research Projects Switzerland

<sup>9</sup>Forbs "30u30", Head of Business Development for Alfa API, Alfa ID and Alfa Pay of Alfa Bank, Russian Federation,

<sup>10</sup>Founder & CEO, Stress Relief Center "Strategy", Project Manager, Teacher-Psychologist, Diploma of Sholokhov Moscow State University, Specialization in Neuropsychology, Full member of the Scientific European Society, Hanover, Russian Federation

<sup>11</sup>Writer, Researcher of dreams using the method of mathematical statistics, Kaluga Russian Federation

<sup>12</sup>Auditor and Risk Manager, BRL Risk Consulting GmbH & Co. KG, Berlin Germany

<sup>13</sup>DNA Resonance Research Foundation, Russia Federation

<sup>14</sup>Founder & CEO, Center for Neurotechnology of Sleep and Wakefulness, Moscow, Russian Federation

## Abstract

*This article presents a study on the interdependence between subjective experience gained through lucid dreaming and objectively observable processes dependent on collective consciousness. Relying on theoretical research in the field of consciousness, collective conscious and unconscious, and experimental data, assumptions about the nature of such interrelation have been made. A concept is proposed for discussion on the formation of structures capable of utilizing such phenomena for controlled types of activities such as: making economic-political decisions, managing investments, and shaping social transformations. The article introduces a digital system for managing event forecasts and market trends developed by BlackRock Corporation. Various aspects of the market—overvalued companies, potential risks, the impact of political projects on the financial world, as well as possible areas of future financial crises — are under the purview of the artificial intelligence used within BlackRock.*

## Introduction

In our study, we relied on a wide range of scientific works concerning the topic of dreaming and lucid dreams. Within the scientific community, the study of dreams can be thematically categorized as follows: general sleep and dream research [1-4], philosophy of dreams [5,6], psychology of dream [7-10], neurobiological, and biophysical approach to dream [11-14], dreams as a gateway to sub-consciousness [15-19]. We draw your attention to the mass media outlet we have created,

which has conducted a series of interviews with leading specialists in the field of sleep and dreams [20-29].

This article presents a study on the interdependence between subjective experience acquired through lucid dreaming and objectively observable processes dependent on collective consciousness. Drawing on theoretical explorations in the field of consciousness, collective conscious and unconscious, and experimental data, assumptions have been made regarding the nature of such interrelation.

Citation: Banchenko D, Burilova T, Siberia I, et al. Forecasting Social, Geopolitical, and Economic Events Using the 'Banchenko-Technology'. Japan J Res. 2024;5(5):035

The unconscious can be understood as an entity subject to certain laws and in a dynamic relationship with consciousness; the social fact, as defined in Durkheim's sociology, refers to the collective unconscious, external to the subject. Moreover, Durkheim, in order to define a social fact, relies on the psychology of his time and the notion of the unconscious individual representation to confirm by "analogy" the existence of collective representations.

For Durkheim, the unconscious takes the form of a "mega-man" endowed with consciousness, the power of representation, who embodies religion and morality, and regulates that creature of desires and insatiable appetites that is the individual. This "mega-personality" operates in each of the members and does not force all human activity (governed by other domains such as the physical, physiological, biological, and to a lesser extent the psychological dimensions), but dictates the "manner" in which it is realized. It can also be noted that society as a personality shares much in common with Freud's second theme of the superego, suggesting that Freud, having read Durkheim, might have been inspired by him. However, neither Durkheim nor his followers actually came to hypothesize the unconscious.

The purpose of the study is to determine the hypothetical possibility of predicting events and the consequences of such forecasting on the basis of the "Banchenko Algorithm" [30], "Mnemonic Synchronization – Banchenko" [31], "The Concept of the 'Global Event Forecasting System – Banchenko'" [32], the "Concept of Dream Honeycombs – Blokhin" [33], as well as on the basis of the "Kapustin Markers Algorithm" [31].

### Durkheimian Detour

It is indeed difficult for Durkheim to talk about the unconscious since the ignorance of our ways of thinking, acting, and feeling has its analogue in the hypothesis of representations and consciousness, even if they are collective. Moreover, this idea of "consciousness without my awareness," in his opinion, is not only observed but to a certain extent necessary for social cohesion. A social fact is all the more capable of performing its coercive and normative function when the individual does not realize that these determinations are collective, and when he "assumes" them as individual choices. However, Durkheim himself notes that the advent of consciousness of a previously unconscious phenomenon cancels the automatism that carries it out: "For the more this capability of knowing what happens within us develops, the more the movements of the subject lose the automatism that is characteristic of physical life. An agent endowed with conscience does not behave like a being whose activity is reduced to a system of reflexes: he hesitates, gropes, deliberates, and it is precisely by this peculiarity that we recognize him."

This remark relates to the context illuminated by Marcel Mauss regarding the formulation of the concept of the unconscious and its connection (still relevant, according to this author), made possible by the idea of the "cerebral reflex" (...) But it also recalls Durkheim's doubts about the influence of knowledge progress on social cohesion and his fears that this could have detrimental consequences. Thus, the sociological method leads to a political problem. What to do with this knowledge, necessary and dangerous, uncovered by new science? To whom is it addressed, and who is responsible for making it their own?

This political question can be approached at an epistemological level, asking not about the conscious and unconscious, but

about knowledge and ignorance. This, it seems to us, is what Durkheim invites us to do in this methodological recommendation, always in relation to suicide: "Because it is important not to express with some precision the representation of what the average intellect committed suicide, but to constitute a category of objects, which, although it can be easily related to this category, is objectively justified, that is, corresponds to things determined by nature."

Sociologists must free themselves from prejudices, spontaneous representations, opinions, and commercial coffee: the antiphon is known, and the authors of "The Craft of Sociology" believed that it would be quite natural to re-inscribe this rule of sociological method after the epistemological break.

### Maurice Halbwachs, or Memorial Fantasy as a Guarantee of Social Cohesion

Halbwachs's position is largely unique and goes beyond merely deepening Durkheim's theses. Imbued with the teachings of Bergson (despite his ambivalent relationship with the man who was his philosophy professor), a reader of Husserl, and a fine connoisseur of German sociology, his "theoretical accessibility" (Michel Verret) opens one of the first transitions between schools from which modern sociology inherits. Moreover, his socialist and republican commitment, as well as the fact that he wrote his last works while participating in resistance movements, lend his final analyses special acuteness and scope regarding the relationships between consciousness, epistemology, and politics.

Halbwachs is known for coining the term "collective memory," but it should be remembered that from the start to the end of his work, he always imbued this concept with content in connection with recollection and individual memory. Memory is neither individual nor collective, but both collective and individual. Against the strictly organicist conception of memory, he considers Bergson's hypothesis according to which the memory of an individual "cannot arise from his body, there must be something outside the body, but something in the individual that explains the reappearance of the memory." This "something" for Halbwachs is what he calls "social frameworks" in his first analysis: religion, family, or even language operate without our knowledge in constructing an image of memory that is never a true return to the past.

A social fact is a representation, and as such can be confused with our individual representations. But Halbwachs's theses on memory, and the close discussion he continually had with Bergson and the psychologists of his time, specify the "substance" of representations. For Halbwachs, to remember means to recognize, but in the sense of new knowledge. And this recognition comes from concepts that are the frameworks surrounding our perception. In this sense, Halbwachs continues Durkheim's study of categories based on "The Elementary Forms of Religious Life." But, what is interesting for us, contemporaries of the "cognitive sciences," for him the concept is not a notion, and recognition is not strictly an intellectual activity. It does not oppose the image, as with Bergson, who is criticized for defining "the image by freeing it from any notion of relation, from any intellectual meaning" and for defining "the concept by freeing it from any image."

"If, on the contrary, collective concepts are not 'notions,' if society can only think in terms of facts, people, events, then there is no idea without images: more precisely, the idea and

the image do not denote two elements, one social, the other individual, of our states of consciousness, but two points of view from which society can simultaneously consider the same objects, to which it attaches its place in all its concepts or in its life and its history.

It is necessary to preserve the affective, concrete, personified dimension of concepts. and only in this way can they become a framework for memory and allow it to play the role assigned to it by Halbwachs: to regulate the uncontrollable course of time. Because society and the world are in constant motion, and the role of collective memory is precisely to make this movement suitable for life. Memory performs a regulatory function through the reinterpretation of the present, the ongoing emotional and sensitive recoloring of memories. Many chapters of Halbwachs specify these remarks, particularly his superb legendary *Topography of the Gospels in the Holy Land*, where he shows, supported by empirical work, how Christian collective memory periodically changes the location of sacred places. The new needs the old: it advances stealthily, disguised in old forms.

This regulatory function of memory is also possible thanks to the constantly established relationships it has with matter. To recognize a memory means to determine its location not only in time but also in space and materiality. The image of memory is always an image of something. Essentially, Halbwachs says, a material object somehow "signals" us something. For Halbwachs, as for Mauss, the material part of a symbol is not arbitrary (since it can be ascending with Durkheim and descending with Lévi-Strauss), a symbol is not just a sign.

In any case, we always pursue the same goal. A religious society wants to convince itself that it has not changed, although everything around has changed. It can only succeed if it finds places or recreates around itself at least a symbolic image of those places where it was first constituted. Since places participate in the stability of material things, and precisely by fixating on them, closing within their limits, and subordinating their relationship to their disposition, the collective thought of the group of believers has the greatest chance to stay in place and last long: such is indeed the state of memory.

## On the Unconscious

What Michel Verret calls "morphological materialism" of Maurice Halbwachs is based on the idea that the social is embodied in material forms and places. This morphological materialism seems to us deserving of being reintroduced into the agenda, not only because it operates in less "forgotten" perspectives, such as the views of Leroi-Gourhan or Simondon, from the standpoint of a constant interaction between the specifically human (symbolic and material and their essential reciprocity), but also to add (possibly) a dimension that was rather developed by other authors (Castoriadis, Balandier, Graeber). Imagination, characteristic of humans understood as highly social beings, is in fact a creation of artistic literature, stories that allow us to cope with the constant mobility of reality. Durkheim said that we should consider social facts as things. Mauss, undermining his uncle's teaching, teaches us to consider things "as things" — social facts, showing society as a fabric, in the fibers of which subjects and objects are inseparably intertwined (quote from *The Gift* essays). Halbwachs responds to Comte's legacy, which is that our relationships with others, with things, and with nature are inscribed and gain meaning in history in a narrative that, while not being illusory, is also not truthful.

Imagination, in the words of Castoriadis, "institutionalizes" the image. For Halbwachs, this is placed in history and thus in the "fiction," anchored in places, the materiality of which matters (revisiting social morphology).

## The Concept of Event Predictability

The article by E. Cardeña [34] presents a comprehensive integration of modern experimental data and theories about the so-called parapsychological (psi) phenomena. Throughout history, people have reported events that seemed to violate common sense about space and time. Some psychologists have been at the forefront of researching these phenomena, using sophisticated research protocols and theories, while others have devoted much of their careers to critiques the field. Both positions can be explained by the experience of psychologists in relevant processes such as perception, memory, beliefs, and conscious and unconscious processes. This article clarifies the field of psi psychology, summarizes the latest theories of physics and psychology that present psi phenomena that are at least plausible, and then provides an overview of recent/updated meta-analyses. Evidence provides cumulative support for the reality of psi psychology that cannot be easily explained by the quality of research, fraud, selective reporting, experimental or analytical incompetence, or other frequent criticism. The evidence for the existence of psi is comparable to that of established phenomena in psychology and other disciplines, although there is no consensus on it. The article concludes with recommendations for further progress in this area, including the use of project and data repositories, conducting interdisciplinary research with sufficient power, developing further unconscious psi measurements and falsifiable theories, analyzing the characteristics of successful sessions and participants, and improving environmental credibility. research, testing how to increase the magnitude of the effect, hiring more researchers at least open to the possibility of psi phenomena, and placing psi phenomena in larger areas such as the study of consciousness [34].

J. Mossbridge et al. [35] believe that perspective, the attempt to anticipate one's future, is based on conscious and unconscious inferences from past experiences and anticipation of future possibilities. Most scientists consider the idea that perspective can also include influences from the future to be completely impossible due to a violation of common sense or constraints based on one or more physical laws. We present several classes of empirical evidence that challenge this common assumption. If this line of evidence can be successfully and independently replicated using pre-recorded designs and analyses, then the implications for the interpretation of experimental results from any empirical field will be profound.

In 2011, one of the authors (DJB) published a report in the *Journal of Personality and Social Psychology* on nine experiments that aimed to demonstrate that a person's cognitive and affective responses can be influenced by randomly selected stimulus events that do not occur until his or her responses have already been made and recorded, which is a generalized version of the phenomenon traditionally referred to by the term foresight. In order to encourage repetition, all materials needed to conduct it were made available upon request. Here we report a meta-analysis of 90 experiments from 33 laboratories in 14 countries that produced an overall effect greater than 6 sigma,  $z = 6.40$ ,  $p = 1.2 \times 10^{-10}$  with an effect size (Hedges  $g$ ) of 0.09. Bayesian analyses yielded a Bayes ratio of  $1.4 \times 10^9$ , which is well above the criterion value of 100 for "decisive proof" in sup-



port of the experimental hypothesis. If we exclude the original DJB experiments, the cumulative effect size for the repetitions of independent investigators would be 0.06,  $z = 4.16$ ,  $p = 1.1 \times 10^{-5}$ , and the BF value would be 3853, again exceeding the "decisive proof" criterion. The number of potentially unextracted experiments needed to reduce the total effect size of the entire database to a trivial value of 0.01 is 544, and seven of the eight additional statistical tests support the conclusion that the database is not at significant risk either because of selection bias or because of "selection bias". "p-hacking" is the selective concealment of results or analyses that failed to provide statistical significance. P-curve analysis, a recently introduced statistical method, estimates the true effect size of our database at 0.20, which is almost identical to the effect size of the original DJB experiments (0.22) and the closely related "hunch" experiments (0.21). We discuss the controversial status of precognition and other anomalous effects known collectively as psi [36].

## Lucid Dreaming

It should be noted that people who have mastered lucid dreams, altered states of consciousness and the ability to control them, as well as the system of decoding the information received by their collective unconscious, together with the use of artificial intelligence, form a new society of people, smoothly acquiring species superiority, capable of rapid evolutionary growth of consciousness, and, accordingly, of acquiring instruments of power through the influence that predictive power gives. lucid dreams and other transcendental states of consciousness in conjunction with the possibility of trading in the stock markets, which will ultimately lead to a rapid flow of capital to this group of people, as evidenced by a number of interviews with psychokinetic Denis Banchenko [30-32].

For example, in an interview about insomnia, it is determined that insomnia is a sleep disorder characterized by difficulty falling asleep, insufficient sleep duration, or poor sleep quality. It can be caused by a variety of factors, such as stress, depression, trauma, unsystematic sleep patterns, alcohol or drug use, certain medications, genetic predisposition, and other medical conditions. To combat insomnia, it is recommended to make changes in habits and lifestyle. This includes establishing a regular sleep routine, maintaining a balanced diet, creating a relaxing bedtime environment, and limiting caffeine intake. If the problem persists, it is recommended to seek medical attention [37].

According to the results of a study of sales of sleeping pills, sedatives and visits to sleep specialists in Russia, it turned out that Russians began to sleep worse. Sales of sleeping pills increased by 43%, sedatives by 50%, and the number of visits to specialists increased by 22%. It is known that the quality of sleep depends on daylight: spending more time in natural light contributes to the production of melatonin, which is necessary for quality sleep. Active action disrupts the functioning of sleep cycles and the generation of substances in the body. It is recommended to stay outside for as long as possible during daylight hours in autumn and winter. In addition, the quality of sleep is affected by the presence of electromagnetic pollution, internal biochemical rhythms and cycles, the type of diet and sleep conditions. It is important to take into account the individual rhythms and preferences of each person [38].

Prophetic dreams are clues of the psyche and can change our lives. They contain deep meaning and point to problems or areas for development. Often, the conscious mind does not notice these signals, so they come in dreams when we are not over-

whelmed by critical thinking. It is possible to learn to recognize and understand prophetic dreams, and even to calculate when they will come true. It's also helpful to know which days of the week they dream more often. Prophetic dreams are the result of the brain working through the subconscious mind and help to understand future situations [39].

During sleep, the brain works more actively than during wakefulness. Lucid dreaming allows you to look into the subconscious mind and understand what the brain is doing during sleep. In a lucid dream state, a person can control their body and its processes, influence health, and develop skills. There are a large number of techniques that help to achieve lucid dreaming. Mastering these methods requires perseverance, desire, and discipline, but is available to anyone [40].

In the field of lucid dreaming, in his article "A Study of Dreams," Frederick van Eden coined the term "lucid dreaming" in 1913 while studying 52 lucid dreams. A century from now, with the help of the latest electronic equipment, lucid dreaming could be induced without medication. However, sophisticated instruments are expensive, and not many laboratories can afford to purchase them. Therefore, the Research Institute of VNDiN is launching a new study of lucid dream techniques with a parallel financial project, in which investors can count on an increase in the price of an NFT token by the end of the research. Information about lucid dream research is protected, but there are already devices available to help in lucid dreaming. The target audience and the financing of the production of these devices are questions. The latest digital technologies make it possible to record the moment of the onset of lucid sleep and changes in physiological parameters. Lucid dreaming may be related to ancient mystical practices [41].

In Russia, it is planned to conduct an experiment in the field of lucid dreaming of the Institute of Higher Nervous Activity and Neurophysiology of the Russian Academy of Sciences. An NFT token will also be issued, which is a container of data that moves around the blockchain [42].

In connection with the above, it is necessary to introduce new regulatory mechanisms in this area, as well as to officially form this area.

## Materials and Methods

To develop an algorithm for predicting and analyzing events based on dreams, it is necessary to organize and compare data from various sources. Our approach is based on comparing information from two different databases: data from dreams and objective information. Since dreams often touched upon geopolitical, economic, personal events, the following data sources were chosen for analysis: news portals, the stock market, dream diaries, and event diaries.

## Data Collection and Processing

### Stage 1: Organization of a Stable Stream of Dream Data

To ensure a stable flow of dream data, we have developed and implemented a multilingual web application "Dream Diary". This application, available in numerous popular languages, allows users from different countries to record their dreams in a convenient format. This approach provides a continuous and diverse stream of dream data from around the world, taking into account cultural and linguistic differences. This is fundamentally important for our research as it allows us to conduct a deep

and comprehensive analysis of dreams.

### **Stage 2: Organization of the External Data Stream**

The first external data source for the study we chose was a news portal, with which we signed a contract for direct news transfer and access to their database. Every day we receive up-to-date news from around the world, including a digest of the most significant events. The portal is a licensed source that undergoes strict checks for information accuracy and conducts independent investigations regarding the news. This provides us with access to verified and reliable data, which is a key aspect for conducting quality analysis and comparison with dream data.

The stock market became the next data source, as predictions in dreams often related to stock prices and economic processes. For this purpose, we regularly requested up-to-date data on the prices of various companies' stocks. Monitoring the stock market was carried out daily, allowing us to promptly analyze changes in the economy and correlate them with the plots of dreams.

### **Stage 3: Introduction of the "Event Diary" Concept**

As many people dreamt of events related to their lives, we introduced the concept of the "Event Diary" as part of the Arcanum 12th algorithm. Research participants regularly recorded important events of their everyday life. This practice not only contributed to improving the quality of data but was also a mandatory condition for all participants in our research. This information was used for more accurate matching and analysis of dreams with real events.

### **Stage 4: Data Merging and Analysis**

Using the Kapustin Markers algorithm, information from dreams and other data sources was initially processed by extracting specific elements such as dream locations, settings, objects, individuals involved, event locations (street/district/sub-region/city/country/region), company names, stocks, the place where the person was sleeping at the time of the dream, and the sequence of events.

The subsequent processing stage involved comparing and verifying the number of matches between the events, locations, and people in the dreams and real news. If several similar markers were found, the Kapustin's AI Dream Matching Model attempted to reconstruct the events from both the dream and the news. The model then noted any discrepancies, identifying events that were either missing in the dream or in the real news, and calculated a similarity index for the dream. If the similarities were significant, the algorithm processed the dream and events together, making a preliminary conclusion and sending a notification to confirm the match.

Stocks mentioned in dreams were extracted and automatically updated using a system tracking their current value. Events in waking life and dreams were grouped together by plot into common groups.

If the match pertained to a user's personal event, and their dream corresponded with an event in their life, we would send our findings and identified patterns to the user, awaiting confirmation. In the case of news, such matches were processed internally.

Monitoring company stocks presented certain difficulties, as users often could not fully specify the name of the stocks,

or dreamt incomplete stock quotes, creating inaccuracies. Therefore, where we found an exact match by the stock name (through the stock exchange), the processing occurred automatically. Otherwise, searching and linking were done manually after thorough investigation and searching for the corresponding company.

Users can prove the prophetic nature of their dreams by providing links to news or evidence from their life. They can add supplementary materials to their dreams or event diaries, such as attaching a link to a news article that verifies the authenticity of the event. This process ensures the validation of the prophetic nature of the dream. Once verified, users receive bonuses, encouraging more detailed and accurate submissions and enriching the database of prophetic dreams, which further improves the algorithm's training.

### **Rewarding**

Denis Banchenko and Mykhailo Kapustin are developing a special cryptocurrency called Kapusta, a name proposed by Denis Banchenko in honor of Co-founder and CTO, Mykhailo Kapustin. We reward users with Kapusta for their contributions to our system. In the near future, we plan to issue this currency, which can be spent within our system to purchase various services. Journalists receive Kapusta for articles about lucid dreaming, researchers earn Kapusta for their studies, and dreamers are rewarded for providing data. Additionally, users receive an extra bonus for prophetic dreams.

## **Results**

### **Predictive Possibilities of Lucid Dreaming: Results of the Experiment**

In the context of the "Honeycomb-Blokhin Concept" and the transmission of signals described in the work "Electromagnetic Fields in the Biosphere, Volume I" [43], the process of synchronization between individuals requires decoding information. The currently formed "Market of Lucid Dreaming – Market-Banchenko", as well as the market of predictions, is not only a place of predictive opportunities, but also, in a possible scenario, an increase in the number of practitioners of lucid dreaming (LD), who acquire certain predictions that affect the formation of these markets. With the exponential increase in the amount of research and publications in the field of lucid dreaming, the volume of such information is increasing, which will then be exchanged in the market of states and predictions, having an impact on real markets.

For example, after the publication of the first economic article, the prices of cocoa companies and cocoa futures rose, including the growth of shares of the Red October factory. Therefore, it is important to identify a possible correlation between the value of a company's stock and lucid dreaming. The list of events is presented in Table 1.

Data related to dreams and changes in the value of shares of certain companies are presented in Table 2.

In the regression analysis, we plan to determine the impact of specific changes observed during sleep on the market dynamics of the stock (1 - positive changes, 0 - negative changes), expressed as a percentage of actual changes.

The graph shows the uneven distribution of ordinary dreams in a group of 15 researchers. Pay attention to "bursts" of dreams,

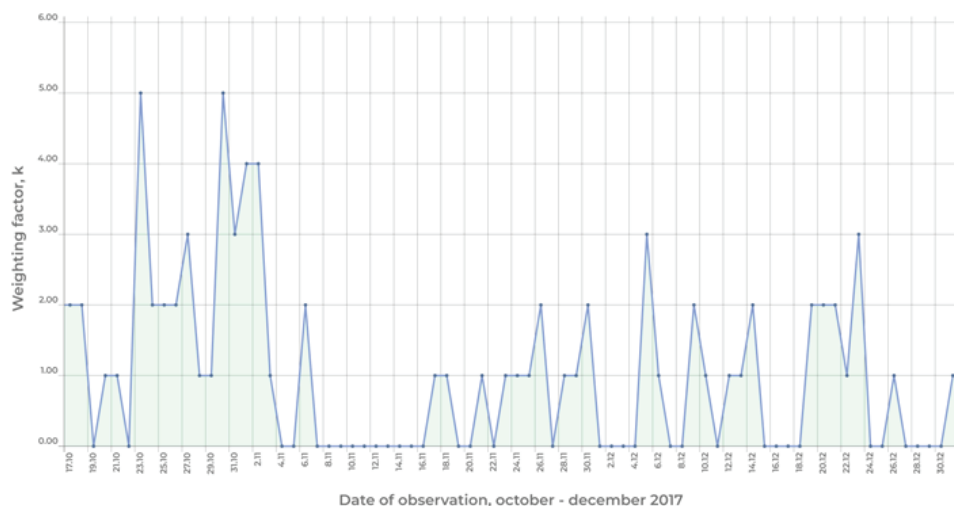
**Table 1.** Data to build a regression model

Date	Potential	%	Price at the moment	Price in national. Currency	Peak After	Peak, nats. currency	Exporter/Domestic Market
15.07.2023	1	26,67%	0,30\$	27,0357	0,38\$	34,24522	1
31.07.2023	1	20,09%	2464	224169,792	2959	269203,902	1
04.08.2023	0	4,91%	14,86	1393,55594	15,59	1462,01461	1
31.07.2023	1	-1,08%	15,76	1433,81328	15,59	1418,34702	1
21.12.2022	1	52,26%	48,60\$	3353,4	74\$	5106	1
21.07.2023	1	2,59%	28,23\$	2564,80842	28,96	2631,13184	1
14.08.2023	0	1,97%	28,39\$	2788,06834	28,95\$	2843,0637	1
10.08.2023	0	2,68%	13,42\$	1304,58504	13,78\$	1339,58136	1
16.07.2023	1	1,79%	4,48\$	403,73312	4,56\$	410,94264	0
5.07.2023	1	30,41%	194\$	17371,73	253\$	22654,885	1

**Table 2.** Regression model metrics

Source	Value	Standard error	t	Pr >  t	Lower bound (95%)	Upper bound (95%)
Intercept	1,001	0,523	1,915	0,097	-0,235	2,237
Price at the moment	0,000	0,000	-1,064	0,323	-0,001	0,000
Price per moment, nat. Currency	0,000	0,000				
Peak After	0,000	0,000				
Peak, nats. Currency	0,000	0,000				
Exporter/Domestic Market	-0,370	0,555	-0,666	0,527	-1,683	0,944

Signification codes: 0 < \*\*\* < 0.001 < \*\* < 0.01 < \* < 0.05 < . < 0.1 < ° < 1

**Figure 1.** Distribution of Ordinary Dreams from October to December 2017

periods of "calm" when none of the subjects dreamed at all. As you can see from the graph, the end of October 2017 is a surge, the beginning of November 2017 is a lull.

Exactly the same pattern in the next three months of observations. On January 13, 2018, there was a surge (5 out of 15

people had a dream), then from January 18 to February 6, 2018, there was a decline. Then there was another surge on the night of February 7 and a decline. A pronounced decline after February 18 to the end of March.

Such statistics allow us to make the assumption that dreams

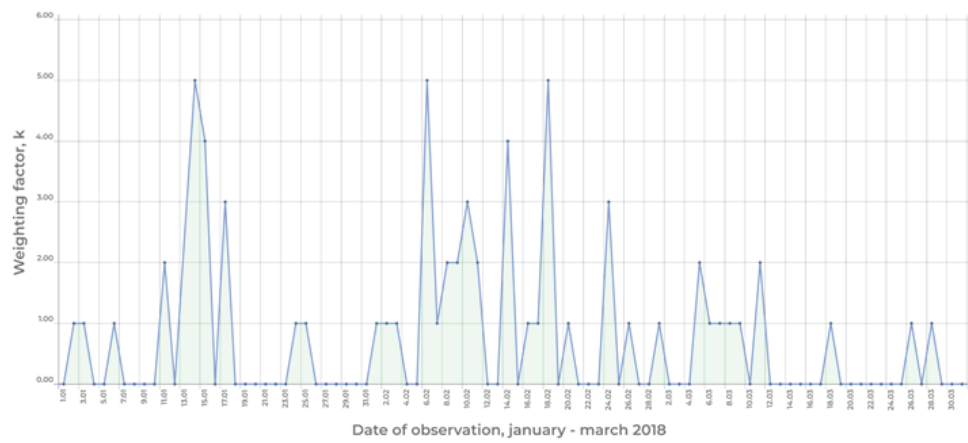


Figure 2. Distribution of Ordinary Dreams from January to March 2018



Figure 3. Dream activity of a group of subjects for 2018-2020



are a manifestation of an external influence, a kind of "signal" that is picked up by the human brain. The dreaming activity of a group of subjects for 2018-2020 is represented by the following graph.

The graph clearly shows bursts and decays, which cannot be explained in any way from the point of view of probability theory. The graphs depict the dreaming activity of the participants in the experiment. In the figures, it is noticeable that the "date-number of dreams" relationship, expressed by the weight coefficient in relation to the active participants of the experiment, has the form of an aperiodic signal with pronounced characteristic peaks. Based on the results of three-year observations, it was found that the peaks of dream activity of the subjects fall on the same (or quite close) calendar dates. In addition, the maximum number of dreams occurred on these dates. These dependencies are reflected in the summary graph for three years of observations. The reason for this dependence is still unknown, presumably the signal is external.

The results of the three-year observations also revealed repetitive periods of time perceived by almost all participants in the experiment. These periods (or historical epochs) have been called "beacons of time." Periods are discrete, and are separated in time from the present moment by different intervals into the past and future. The most common intervals are 30 years in the past, 70-80 years in the past (coincides with the time of World War II), the maximum depth of perception of events is 100 years. Perceptions of events deeper than 100 years are rare, and only two such cases have been recorded in two years (the Middle Ages). It is possible that the perception of stable historical epochs (the 1980s, 1939-1943) is related to the density of events that fall on these time intervals.

Figure 4 is a graph with time beacons:

A total of 158 dreams were analyzed, of which 86 were related to the conventionally present, 34 to the recent past, and 16 to the supposed near future.

Also, in the course of the experiment, it was revealed that a number of events perceived by the participants were related to the near future. The intervals of occurrence (the occurrence of an event after a dream) are discrete in nature, and compared to time beacons, they have a smaller scale. Nevertheless, ac-

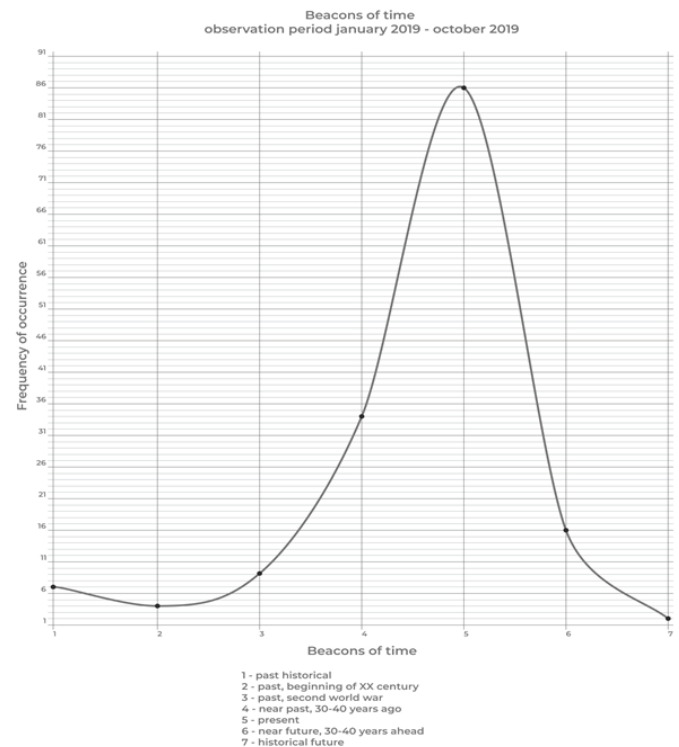


Figure 4. Beacons of Time

cording to the experimental data obtained, the sequence of sales intervals was established in: 1, 3, 7, 21, 35 days. The sequence is very close (but not identical) to the sequence of Fibonacci numbers. The deviation from the match may be due to the limited experimental data. The frequency of such intervals varies, the intervals of 3 and 21 days have the maximum value (according to the experiment).

The graph (from 0 to 40 days) shows that the events, after be-

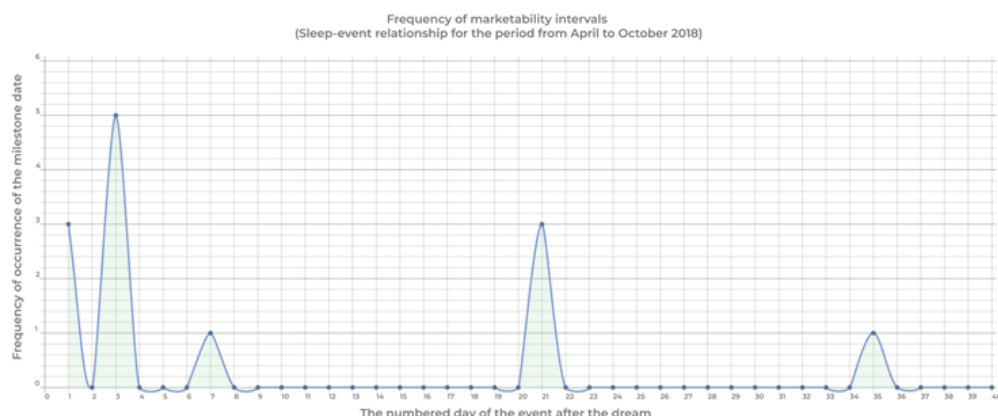


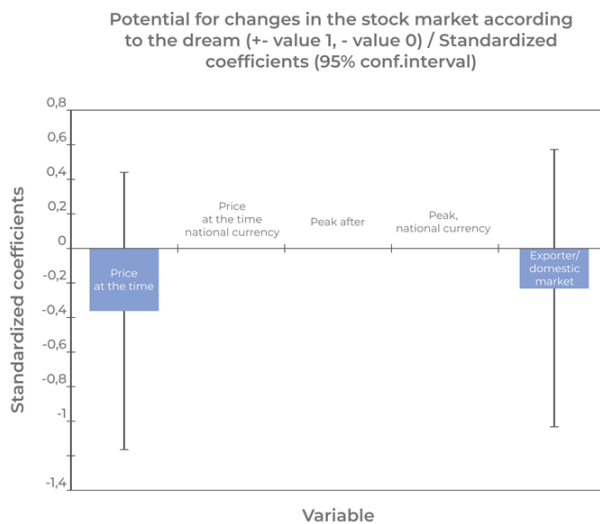
Figure 5. Frequency of Sales Intervals



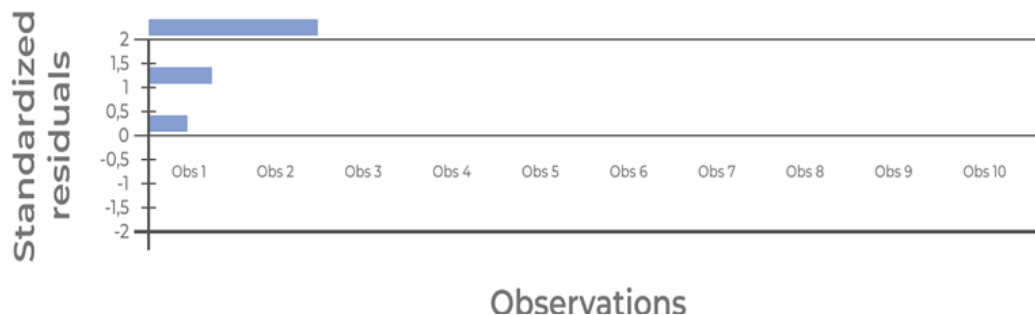
ing recorded in the description of the subject's sleep, occurred on day 1 (usually in the morning) - 3 cases, on the third day - 5 cases, on day 7 - one case, on day 21 - 3 cases.

According to the resulting model, the potential for changes in the stock market according to the dream has a direct impact on the percentage of actual changes.

A graphical representation of the model is shown in the figure 6.



**Figure 6.** Graphical representation of the model Potential for changes in the stock market according to sleep (+ - value 1, - value 0) / Standardized coefficients (95% conf. interval)



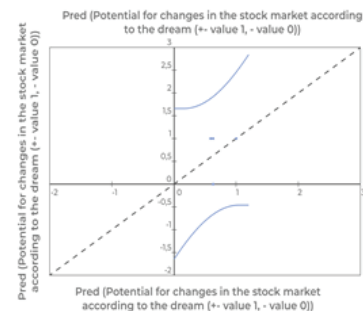
**Figure 9.** Standardized Balances / % Actual Change

Most reliable forecasts in the financial markets are limited to many random factors influencing the outcome that are unknown at the time the forecast is made. The reliability of a forecast can be significant only if there are one or two significant statistical factors that are more important than others. This may refer to the use of insider information, provided that it has not been intentionally misrepresented to mislead. Thus, long-term forecasts in the financial market are often unreliable. As for dreams and their role in prediction, coincidences are most likely the result of extremely unlikely coincidences. They attract attention mainly because many other predictions do not come true and are simply forgotten.

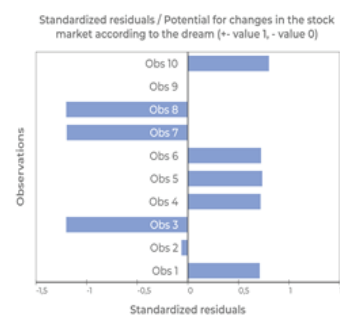
In a number of studies, attention is paid to describing groups of models used for analyzing and predicting high-frequency fi-

nancial time series. Such models include:

1. Autoregressive models (AR), which assume that current values of the time series depend on its previous values.
2. Moving Average models (MA), focusing on modeling time series using "noise" components from past periods.
3. Autoregressive Moving Average models (ARMA), combining both of the aforementioned concepts.
4. Autoregressive Integrated Moving Average models (ARIMA), designed for modeling time series that are not stationary.
5. Vector Autoregression models (VAR), which can analyze and predict a system of interconnected time series.



**Figure 7.** Regression: % of actual change to Potential for changes in the stock market according to sleep (+ - value 1, - value 0) ( $R^2=0.111$ )



**Figure 7.** Standardized balances / Potential for changes in the stock market according to the dream (+ - value 1, - value 0)

Table 3. Model Parameters

Source	Value	Standard error	t	Pr >  t	Lower bound (95%)	Upper bound (95%)
Intercept	2,932	3,827	0,766	0,486	-7,693	13,556
Stock Exchange Index	0,000	0,002	0,287	0,788	-0,004	0,005
Inflation rate	1,493	1,056	1,414	0,230	-1,439	4,426
Key rate	-0,564	0,520	-1,084	0,339	-2,007	0,880
Political events	-0,041	0,323	-0,125	0,906	-0,938	0,857
Black Swans	0,032	0,334	0,096	0,928	-0,894	0,958

Signification codes: 0 < \*\*\* < 0.001 < \*\* < 0.01 < \* < 0.05 < . < 0.1 < ° < 1 The potential for changes in the stock market according to the dream is presented in the figure below.

6. GARCH models, used for analyzing and predicting the volatility of time series.

Conclusions can be drawn about the scale of use of these models in the foreseeable future, noting that progress in the field of machine learning and artificial intelligence may lead to the development of new, more efficient methods for analyzing high-frequency financial data.

### Regression Dependence of the Influence of a Number of Factors on the Potential for Changes in the Stock Market Determined During Sleep

In the next regression dependence, we determine the influence of a number of factors on the potential for changes in the stock market determined during sleep (1 – positive changes, 0 – negative changes).

The parameters of the model are presented in Table 3.

The potential for changes in the stock market according to the dream is presented in the figure 10.

Potential for changes in the stock market according to sleep (+ - value 1, - value 0) =  $2.93 + 1.493 * \text{Inflation rate} - 0.564 * \text{Key rate} - 0.041 * \text{Political events} + 0.032 * \text{Black swans}$

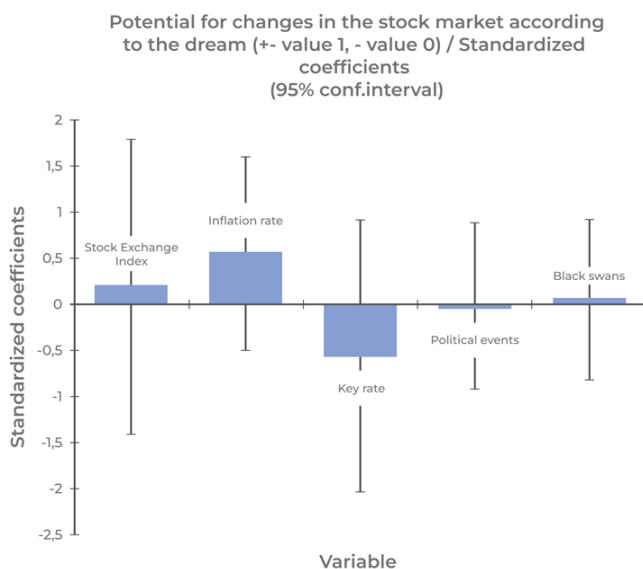


Figure 10. Potential for changes in the stock market according to the dream

Thus, the change in the stock price according to the dream is positively influenced by the inflation rate, Black Swans; The negative impact is the key rate and political events.

### Discussion

The article presents observations on the connection between the subjective experience of dreaming and related objective indicators. An innovative system for collecting and analyzing dream data has been introduced. The system of automatic analytics with AI integration has shown great promise. The presence of correlations between the subtle realm of dreams and the behavior of complex systems, such as stock markets and socio-political processes, has been demonstrated.

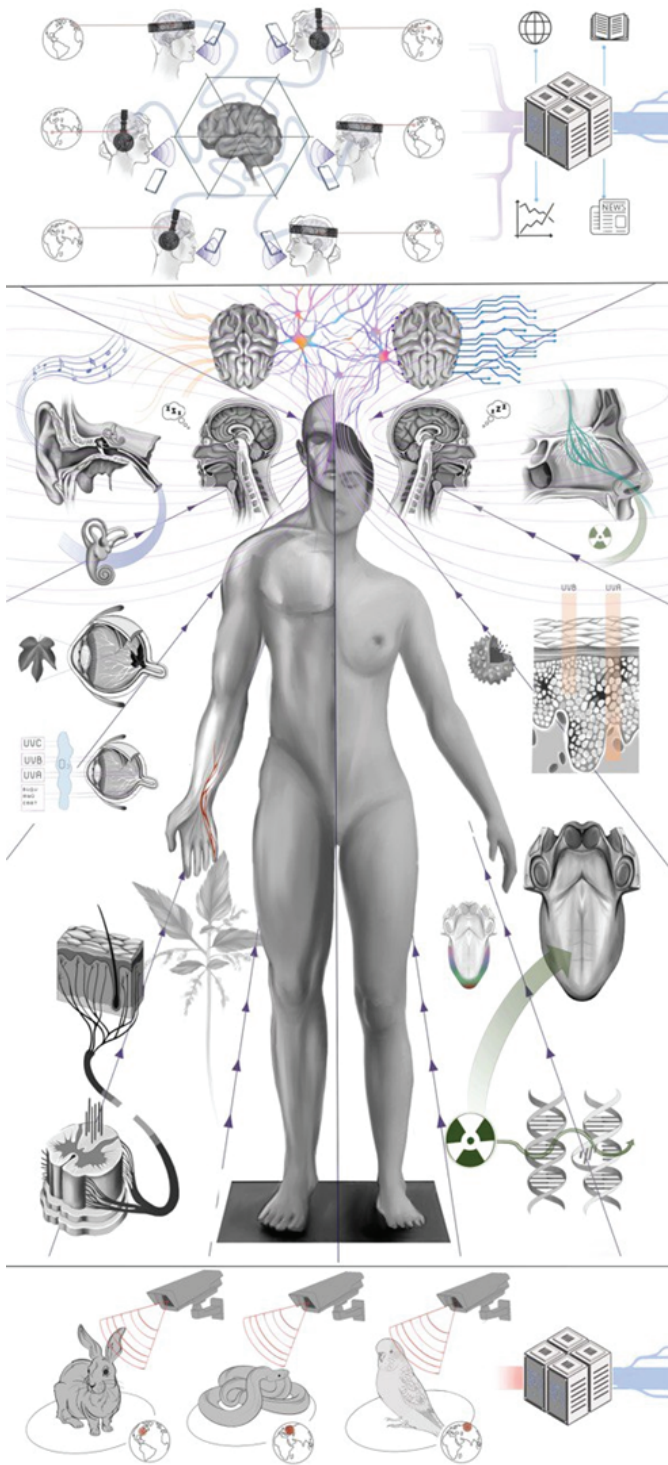
Considering dreaming as a state of the subject on the brink of physical reality encounters interest from the scientific community. The algorithmization and representation of dreams as a data stream is quite innovative. A system for linking dream data with observable reality data has not been encountered to our knowledge thus far.

Due to the acute innovativeness of this scientific research, we would like to propose for discussion several possible development paths for this direction. Clearly, there are opportunities for improving the dream data collection system. This could be achieved both by increasing the volume of observations and by developing more efficient algorithms for processing the data obtained. A second important potential direction is the development of algorithms that elucidate correlations between dream data and objective reality. Considering the explosive development of machine data processing systems, models can be obtained that provide uniquely valuable forecasts based on previously inaccessible dream data.

The practical application of predictive models not only in the scientific environment could lead to faster development of this direction.

### Using AI for Decoding the Received Information

Based on assumptions about the functionality of the human brain and the interrelation of perception and dreaming, as well as ASC, a hypothesis can be proposed about the possibility of processing a variety of information received by a person during the day, in the process of dreaming or ASC. Numerous studies confirm that during sleep and ASC, the brain actively processes information received while awake. Various neurophysiological studies also indicate that during dreaming and ASC, there is a reprocessing and analysis of various types of information that a person perceives in the real world (Figure 11).



**Figure 11.** Describes the processes of obtaining biological data. And using of AI to forecast events.

Experimental studies show that during the dreaming process, the brain can process and structure information received during the day from various sources — television broadcasts, interactions with others, reading literature, studying the news, and other sources of content. This process is considered part of the brain's cognitive functioning and may serve as a basis for the further development of empirical artificial intelligence systems.

There is an assumption that training artificial intelligence on empirical data using methods similar to information processing in the human brain during dreaming and ASC can significantly enhance the efficiency of analysis. This will allow the system to conduct a deeper and broader analysis of data collected during the day, including information from various sources, and provide more accurate and advanced recommendations for asset management.

Although this concept requires further research and verification, the assumption that dreams and ASC may be an intermediate stage of brain information processing opens up new horizons for the potential application of empirical artificial intelligence systems in the analysis and management of financial assets.

Within the framework of the present study, a module for the "Global Event Forecasting System (GFS)" was designed, representing artificial intelligence capable of decoding and analyzing information in real-time with the subsequent possibility of implementing management actions in the field of assets.

### First hypothesis: Planet as a superorganism

Before the start of the study and during the entire process related to the entire complex of research, post-processing of dream content, and identifying correlation with real events, Denis Yuryevich Banchenko proposed two basic hypotheses on how the mechanism for obtaining reliable information through dream content might be possible. Before stating the basic hypotheses, it is necessary to explain why it was decided to use post-processing with neural networks and artificial intelligence of dream content according to special algorithms developed during the joint work of Denis Yuryevich Banchenko and Mykhailovich Kapustin.

Referring to the scientific publication by Mikhail Raduga lab [44] on the reverse transformation of myography into speech, through the training of neural networks and further correction of this speech for conversion into human-readable or recognizable form, one can realize the fact that the signal of residual excitation associated with internal noise of the nervous system and muscle activity acquires significant distortions, which need to be corrected. This cannot be done perfectly at the current technological stage, but it is sufficient for identification and understanding. Similarly, the information obtained is distorted by the workings of human consciousness, personal experience, memory, and emotions, introducing distortions into the received external information signal. As with myography, this requires reverse transformation, noise removal, and correction, which is accomplished through trained neural networks, special information processing algorithms, and AI.

Now, let's move on to the hypotheses themselves. In the work on studying dream synchronization "Application of the 'Banchenko Dream Synchronization Mnemonics Method' for Joint Synchronization of Dream Elements (including Lucid Dreams) within the 'Blokhin Dream Network Concept' and Analysis of Results based on the 'Kapustin Dream Match Search AI Model'" [31], in the process of research and search for the substrate on which synchronization could be built, we referred to the work "Electromagnetic Fields in the Biosphere" [45,46]. Thus, we hypothesized how brain activity of individual individuals or their consciousness forms hives and further conglomerates, usually termed the collective unconscious. Accordingly, having a hypothesis about the physical principles of information exchange, one can refer to the hypothesis of intelligent Earth,

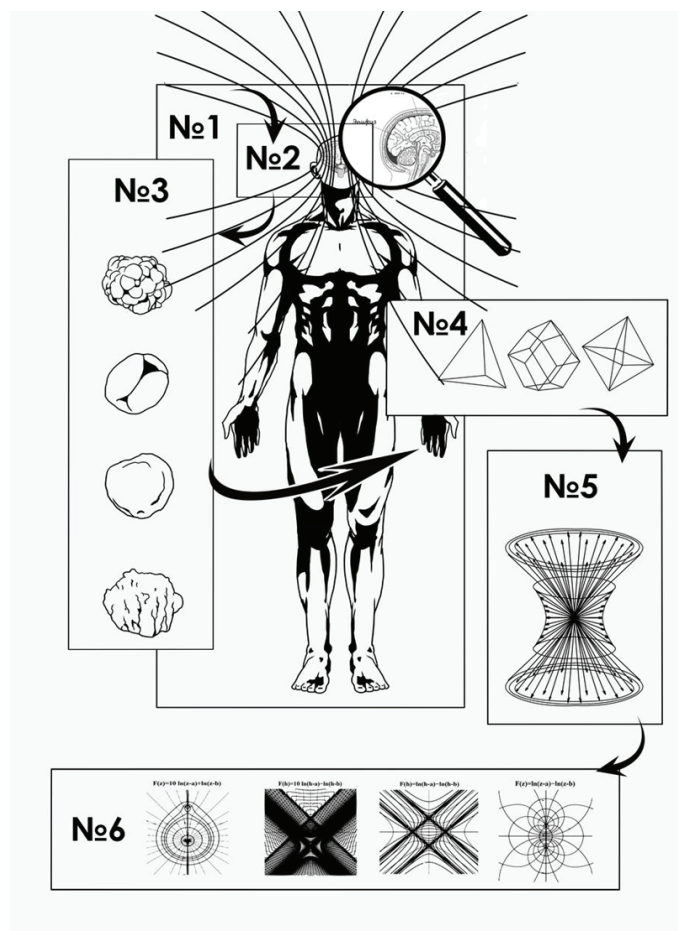


the Gaia hypothesis, that is, an intelligent planet as a single superorganism [47].

Assuming that the planet is a giant superorganism and a single consciousness, having a physical, biological, and technological substrate, this superorganism is capable of carrying out thoughtful intelligent activity and planning. Its cognitive activity is distributed among the individual nervous systems of biological entities, just as in the human brain cognitive activity is distributed among individual neurons. To collect a thought or idea regarding future decisions forming specific actions, it is necessary to gather information from a large number of neurons and combine them into a single picture. Similarly, on a macro level, it is necessary to unite a vast number of individual brains through dream content into a single network and extract from there a picture of the forming or planned future, which will be formed as a result of the actions of specific biological entities, including humans. One can also add the actions of non-biological entities if one assumes that the planet can intelligently regulate climate, geomagnetic activity, and other physical parameters.

### Second hypothesis: Brain as a H-field antenna

The second hypothesis is that the brain is capable of interacting with a hyperbolic field. Hyperbolic fields, proposed and described by Dmitry Pavlov and Sergey Kokarev in their works [48], are an extension of both classical non-relativistic Newton's laws and Einstein's theory of relativity. The mentioned theories and laws, as well as mechanics, are special cases of the theory of hyperbolic fields. Unlike a material point in the classical Newtonian version or elementary particles of special and general theories of relativity, the hypothesis of hyperbolic fields considers not particles and bodies but material events and their aggregates. Material events and the connection between them are facilitated through the hyperbolic field [Fig. 12 5,6]; instead of material points, we have certain elementary processes. In a sense, material events are generalizations of material points with their attachment to Euclidean geometry to spacetime with pseudo-Euclidean and even pseudo-Finsler geometry. In the hypothesis of hyperbolic fields, it turns out that the stronger and more intense any material event, the stronger the interaction of two or more events through the hyperbolic field. From the statistically observed data provided by Vadim Kazakhkov, a researcher from our co-author group of this article, the concept of "Time Beacons" is proposed, i.e., certain especially intense events whose presence correlates with peaks of dream activity. For example, it is evident that a nuclear bomb explosion or the use of tactical or strategic nuclear weapons, a meteorite fall, solar activity, significant climate change, geomagnetic activity, or other intense events will be sources of intense propagation of hyperbolic fields, not only into the future but also partially into the past, which is reflected in the activity of dreams having enough predictive power for registration and further analysis in the group of subjects. In the classical version of astronomy, we deal with ordinary optical, electromagnetic, and gravitational lenses. In the theory of hyperbolic fields and their mathematical apparatus of hypercomplex numbers, new types of lensing associated not only with ordinary but also with new hyperbolic fields can be used. That is, in addition to lenses as three-dimensional real objects, special areas of four-dimensional spacetime with well-defined boundaries, where the rays of the hyperbolic field will refract, acquire physical meaning. New hyperbolic lenses can be of various atypical shapes for classical astronomy and microscopy (Figures 4 and 12). The result of working with



**Figure 11.** Describes the processes of obtaining biological data. And using of AI to forecast events.

such types of lenses lies in the possibility of seeing and obtaining information about other material events, which are not only in the past but also, possibly (under certain circumstances), in the future relative to the observer. N.A. Kozyrev's works also touch on some processes related to hyperbolic fields and provide an opportunity to try to explain the operation of our system. In other words, it is possible that in the brains of biological objects, not only humans but also animals, there are certain structures related to specific processes, forming something akin to hyperbolic lenses and mechanisms for reading information from them. For example, such structures could be particles of the so-called "Corpora arenacea" [49] the concept was introduced into scientific terminology relatively recently, and since the forms and their number are quite large, purely statistically, it can be assumed that some of them may well have the shape of a hyperbolic lens, and since a significant part of them is mobile and interacts both with the bloodstream and participates electrochemically in the processes of the brain, it is quite possible that "brain sand" can be a source of induced information from hyperbolic fields. By analogy with ferroproteins and the ability to navigate by the Earth's magnetic poles, such structures may be present in humans. The emergence of these structures is most likely due to evolutionary processes associated with the need to predict the future for the survival of the species or individual evolutionary branches.

### Third hypothesis "Simulation theory":

The third hypothesis is that our conceptions, in light of the



latest scientific discoveries about the structure of the universe, may not be current, and all the surrounding reality relates to the so-called "Simulation Theory" [50] or is a projection of the work of some superconsciousness within a structure unknown to us and can be explained within the framework of the theory of so-called "consciousness strings" [51]. Research and attempts to find proof will then require even greater efforts and collaboration with high-level physicists, mathematicians, philosophers. An important recent peer-reviewed article that gathers evidence supporting the simulation hypothesis is the work of Dr. Melvin M. Vopson on the second law of infodynamics, published in the journal "AIP Advances" in 2023 [50]. In this study, a new law of physics is proposed that suggests the informational entropy in a system remains constant or decreases over time, as opposed to the second law of thermodynamics, which states that entropy increases over time. As for the idea of "consciousness strings," this hypothesis is most thoroughly presented in the article [51]. Thus, the mechanism of foreseeing future events may be directly connected with the functional capabilities of consciousness itself and the informational environment of which it is a part.

#### Fourth hypothesis: multidimensionality of consciousness

The fourth and final hypothesis posits that either humans themselves or their consciousness is not three-dimensional or four-dimensional plus only one dimension of time, but is a multi-dimensional structure. For example, when talking about consciousness, one can say the following - the research of the concept of multi-dimensional consciousness, including the idea that consciousness may extend beyond traditional three-dimensional space and include additional dimensions of time, is a new field where intriguing hypotheses are proposed. A notable recent work belongs to Dr. Dirk Meyer, who suggests that consciousness may exist in a higher-dimensional space. Meyer hypothesizes that the mental field, or consciousness, can operate within a four-dimensional spatial structure (besides time), which he describes as a "4+1 space-time structure." This theory attempts to bridge the gap between classical and quantum physics by suggesting that consciousness may interact with the brain through this additional spatial dimension[52,53].

Furthermore, the journal "Neuroscience of Consciousness" discusses various models and theories of consciousness that extend beyond the traditional three-dimensional perspective. These models explore the complexities of how consciousness may be integrated and processed in the brain, potentially involving higher-dimensional structures to explain phenomena that traditional models cannot fully resolve [53,54].

In principle, this explains why the brain has structures capable of processing up to 11+1 dimensions, apparently necessary for integrating the physical three-dimensional brain with the multi-dimensional consciousness, as well explained in the following work [55]. Here, a link to our article is also relevant [56]. In general, the brain can indeed process information of multi-dimensional structures, producing their visualization, which is necessary for this purpose.

Research in the field of the brain and consciousness multi-dimensionality includes the study of geometric and multi-dimensional aspects of neural networks and their functions. For example, an article published in the journal Cerebral Cortex describes distributed and hierarchical neural processing of multi-dimensional attributes of biological movement in the hu-

man brain. This study revealed complex interactions between different movement attributes, indicating the multi-dimensional nature of information processing in the brain [56].

#### Conclusion

Taking into account the above, it is necessary to pay attention to the digital system for forecasting events and market behavior developed by BlackRock Corporation. Various aspects of the market – overvalued companies, potential risks, the impact of political projects on the financial world, as well as possible areas of future financial crises – are within the competence of artificial intelligence used within BlackRock.

BlackRock's Aladdin platform is a technology tool that standardizes investment management through a common data language. It scales, provides insights, and supports business change. A system that operates without direct human intervention is becoming a key element in the success of asset managers in a company.

However, one should not rule out the possibility of a more serious competitor to the market – the "Global Forecasting System" system - GFS, which is based on the use and analysis of a large variety of biological data, including dream analysis, information obtained in ASCs (for example, about meditative states), and other aspects using biofeedback, including through EEG, audiovisual channels and so on. It aims to analyze data obtained from a large number of biological entities (the so-called collective consciousness), extracting information from this superconsciousness to predict and analyze various events, including financial and political trends. The advent of such a system, which has the potential to dominate BlackRock's Aladdin platform, dramatically changes the ability to predict market, social and political events and their consequences.

#### References

1. Manoah JJS. An Analysis Relative to the Complex of Dreams Formation. Global Journal of Human-Social Science. 2021;21(A2):25–32. Retrieved from <https://socialscienceresearch.org/index.php/GJHSS/article/view/3576>
2. Pagel J, Blagrove M, Levin R, et al. Definitions of Dream: A Paradigm for Comparing Field Descriptive Specific Studies of Dream. Dreaming. 2001;11:195–202. DOI: 10.1023/A:1012240307661
3. Kramer M. The Assessment of Dream Content: Methodological Considerations. Sleep Medicine Clinics. 2010;5(2):183–191. DOI:10.1016/j.jsmc.2010.01.005
4. Gackenbach J, Bosveld J. Control Your Dreams: How Lucid Dreaming Can Help You Uncover Your Hidden Desires, Confront Your Hidden Fears, and Explore the Frontiers of Human Consciousness. New York, NY: HarperCollins; 1989.
5. Sutton J Dreaming. In Sarah Robins, John Symons & Paco Calvo (eds.), The Routledge Companion to Philosophy of Psychology. New York, NY: Routledge; 2009.
6. Venupakalli S. On the Phenomenological Investigations into the Psychology of Dreaming. Philosophy International Journal. 2023;6(3):1–6. DOI: 10.23880/phij-16000312
7. Giovanardi G, Spangler P. Introduction to the Special Section on Working on dreams, from psychotherapy to neuroscience. Res Psychother. 2021;24(2):578. DOI: 10.4081/ripppo.2021.578.
8. Holzinger B, Levec K, Munzinger MM, Mayer L, Klösch G. Managing daytime sleepiness with the help of sleepcoaching, a non-pharmacological treatment of non-restorative sleep. Sleep Breath. 2020;24(1):253–258. DOI: 10.1007/s11325-019-01995-0.
9. Blechner MJ. New ways of conceptualizing and working with dreams. Contemporary Psychoanalysis. 2013;49(2),259–275.

- DOI: 10.1080/00107530.2013.10746553
10. Blechner MJ. The Analysis and Creation of Dream Meaning: Interpersonal, Intrapsychic, and Neurobiological Perspectives. *Contemporary Psychoanalysis*. 1998;34(2), 181–194. DOI: 10.1080/00107530.1998.10746357
11. Nazrul I, D. K. S. N. K. S. Dream: from Phenomenology to Neurophysiology. *Journal of Biomedical and Pharmaceutical Research*. 2013;2(2):50-57. Retrieved from <https://jbpr.in/index.php/jbpr/article/view/429>
12. Solomonova E, Fox KC, Nielsen T. Methodological considerations for the neurophenomenology of dreaming: commentary on Windt's "Reporting dream experience". *Front Hum Neurosci*. 2014;8:317. DOI:10.3389/fnhum.2014.00317
13. Pagliaro G, Gullà D, Simonetti G, et al. Photon Emission Of The Human Body (Biophotons) And Perceived Well-Being. 2024.1(2): 1-9. Retrieved from <https://www.journal.cqaedu.com/articles/photon-emission-of-the-human-body-biophotons-and-perceived-well-being/>
14. Tressoldi PE, Storm L. Stage 2 Registered Report: Anomalous perception in a Ganzfeld condition - A meta-analysis of more than 40 years investigation. *F1000Res*. 2024;10:234. DOI: 10.12688/f1000research.51746.3.
15. Barry M Klein. Dreaming – Gateway to the Subconscious and Beyond (2024). Retrieved from [https://www.academia.edu/6249842/Dreaming\\_Gateway\\_to\\_the\\_Subconscious\\_and\\_Beyond](https://www.academia.edu/6249842/Dreaming_Gateway_to_the_Subconscious_and_Beyond)
16. Dai R. Logic of Dreams. *Academia Letters*. 2021. DOI: 10.20935/AL3522
17. Spoomaker V, Czisch M, Dresler M. Lucid and non-lucid dreaming: Thinking in networks. *International Journal of Dream Research*. 2010;3(1):49–51. DOI: 10.11588/ijodr.2010.1.597
18. Mahmood J. The Anatomy of Dreams. 2023. Retrieved from [https://www.academia.edu/105328264/The\\_Anatomy\\_of\\_Dreams](https://www.academia.edu/105328264/The_Anatomy_of_Dreams)
19. Mason O, Wakerley D. The psychotomimetic nature of dreams: an experimental study. *Schizophr Res Treatment*. 2012;2012:872307. DOI: 10.1155/2012/872307.
20. Schredl M. Professor Michael Schredl talked about the areas in which studying lucid dreams can help. | ASRP.media. 2023 <https://asrp.media/articles/24450571-4924-4125-8221-178f2d25bffb>
21. Raduga M. Connect the world of dreams and reality. Mikhail Raduga talked about his private research on phase states ('phase') and lucid dreaming. ASRP.media. 2023. <https://asrp.media/articles/aa1908d5-ca32-482f-9148-0fb58f479fca>
22. Karkotis A. Anthropology of Dreams: Alexis Karkotis' scientific research on the mystical world of lucid dreaming among the Ngöbe people in Panama. ASRP.media. 2023. <https://asrp.media/articles/2c4bf4a6-faf9-404e-aff8-6f652a6c9a81>
23. Dorokhov VB. A chance shared dream led to a unique study of lucid dreaming. The personal story of Professor V. B. Dorokhov, a member of the Russian Academy of Sciences. ASRP.media. 2023. <https://asrp.media/articles/cd4cbb22-e21c-4cab-bc0b-360b2934ce44>
24. Blokhin IS. "This is augmented reality." Ilya Sergeyevich Blokhin talks about the incredible possibilities that studying dreams and lucid dreaming opens up. | ASRP.media. 2023. <https://asrp.media/articles/390cf346-dcfb-43e2-941f-a890963cbd2a>
25. Nelin D. Exiting the "sandbox." Secrets of the world of dreams revealed by the renowned author of books on lucid dreaming, Dmitry Nelin. ASRP.media. 2023. <https://asrp.media/articles/1e862773-0020-4f91-9099-93e0e9154bb3>
26. Gorelik S. Cybernetics, space, and microflora. Professor Samuel Gorelik on studying sleep physiology using mathematical models. ASRP.media. 2023. <https://asrp.media/articles/e0ec890c-cdf4-4bb0-8c47-dfe401448315>
27. Fan J. Shuyue Tan. 2023. In the future, dreams will be prescribed as medicine. Chinese scientists on the impact of lucid dreams on human health. ASRP.media. 2023. <https://asrp.media/articles/b55fbc5b-394a-4136-aea4-544188cb7aa8>
28. LaBerge S. Stephen LaBerge: Leading Researcher in the World of Lucid Dreams. ASRP.media. 2023. <https://asrp.media/articles/083c526e-35b5-41b2-8f78-2bc170bd55ae>
29. Erlacher D. Training Athletes in Their Sleep, Lucid Dream Induction, VR, and New Research in an Interview with Professor Dr. Daniel Erlacher. ASRP.media. 2023. <https://asrp.media/articles/3e5a0e40-3a5f-4a8c-a6d1-c0ec0a619b9e>
30. Banchenko DY, Burilova TV, Saveliev LV. Shishkin LK. Research on methods of inducing lucid dreaming in the framework of "Banchenko Algorithm". *Brain Nerves*, 2023;8:1-8. DOI:10.15761/JBN.1000134 Available at: [https://www.researchgate.net/publication/370913525\\_Research\\_on\\_methods\\_of\\_inducing\\_lucid\\_dreaming\\_in\\_the\\_framework\\_of\\_Ban-chenko\\_Algorithm](https://www.researchgate.net/publication/370913525_Research_on_methods_of_inducing_lucid_dreaming_in_the_framework_of_Ban-chenko_Algorithm)
31. Banchenko D, Kapustin MM, Burilova T, et al. Application of the 'Banchenko Dream Synchronization Mnemonics Method' for Joint Synchronization of Dream Elements (including Lucid Dreams) within the 'Blokhin Dream Network Concept' and Analysis of Results based on the 'Kapustin Dream Match Search AI Model'. *Int Internal Med J*, 2(1), 01-18. DOI:10.17605/OSF.IO/BKFHX. Available at: [https://www.researchgate.net/publication/378492219\\_The\\_Application\\_of\\_the\\_Banchenko's\\_Mnemonic\\_Dream\\_Synchronization\\_Method\\_for\\_the\\_Joint\\_Synchronization\\_of\\_Dream\\_Elements\\_Including\\_Lucid\\_Dreams\\_within\\_the\\_Framework\\_of\\_Blokhin's\\_Dreaming\\_Cell\\_Concept](https://www.researchgate.net/publication/378492219_The_Application_of_the_Banchenko's_Mnemonic_Dream_Synchronization_Method_for_the_Joint_Synchronization_of_Dream_Elements_Including_Lucid_Dreams_within_the_Framework_of_Blokhin's_Dreaming_Cell_Concept)
32. Banchenko D, Burilova TV, Sibiriya IN, Mutsalkhanova-Yushchenko ED, Shishkin LK, Prokofieva OV. Funding for fundamental science research based on blockchain technologies: "Banchenko market" (lucid dreams and other transcendental states of consciousness market). *Moscow Economic Journal*. 2023;8. DOI:10.55186/2413046X\_2023\_8\_8\_414 Available at: [https://www.researchgate.net/publication/378492156\\_FUNDING\\_FOR\\_FUNDAMENTAL\\_SCIENCE\\_RESEARCH\\_BASED\\_ON\\_BLOCKCHAIN\\_TECHNOLOGIES\\_BANCHENKO\\_MARKET\\_LUCID\\_DREAMS\\_AND\\_OTHER\\_TRANSCENDENTAL\\_STATES\\_OF\\_CONSCIOUSNESS\\_MARKET](https://www.researchgate.net/publication/378492156_FUNDING_FOR_FUNDAMENTAL_SCIENCE_RESEARCH_BASED_ON_BLOCKCHAIN_TECHNOLOGIES_BANCHENKO_MARKET_LUCID_DREAMS_AND_OTHER_TRANSCENDENTAL_STATES_OF_CONSCIOUSNESS_MARKET)
33. Banchenko V. Algorithm and its Applications. CycloWiki. Available at: [https://cyclowiki.org/wiki/%D0%90%D0%BB%D0%B3%D0%BE%D1%80%D0%B8%D1%82%D0%BC\\_%D0%91%D0%B0%D0%BD%D1%87%D0%B5%D0%BD%D0%BA%D0%BE#cite\\_note-Banchenko-1](https://cyclowiki.org/wiki/%D0%90%D0%BB%D0%B3%D0%BE%D1%80%D0%B8%D1%82%D0%BC_%D0%91%D0%B0%D0%BD%D1%87%D0%B5%D0%BD%D0%BA%D0%BE#cite_note-Banchenko-1)
34. Cardeña E. The experimental evidence for parapsychological phenomena: A review. *American Psychologist*. 2018;73(5):663–677. DOI: 10.1037/amp0000236.
35. Mossbridge JA, Radin D. Precognition as a form of prospection: A review of the evidence. *Psychology of Consciousness: Theory, Research, and Practice*. 2018;5(1): 78–93. DOI: 10.1037/cns0000121.
36. Bem D, Tressoldi PE, Rabeyron T, Duggan M. Feeling the future: A meta-analysis of 90 experiments on the anomalous anticipation of random future events. *F1000Research*. 2015;4:1188. DOI: 10.12688/f1000research.7177.1
37. Ivanova A. Insomnia is not a sentence. What should I do if I can't fall asleep? Interview with D. Banchenko. Available at: [https://samara.aif.ru/society/bessonnica\\_ne\\_prigovor\\_chno\\_delat\\_esli\\_ne\\_poluchaetsya\\_zasnut](https://samara.aif.ru/society/bessonnica_ne_prigovor_chno_delat_esli_ne_poluchaetsya_zasnut)
38. Bodrienko A. A Dream in a Winter Night, or How to Defeat Insomnia Available at: <https://mospravda.ru/2022/12/21/667657/>
39. Ruchenko O. Prophetic Dreams. Available at: <https://www.kp.ru/putevoditel/sonnik/veshhie-sny>

40. Kutsina M. Keys to the Subconscious. What are lucid dreaming and what are they for? Available at: [https://samara.aif.ru/society/klyuchi\\_k\\_podsoznaniyu\\_chno\\_takoe\\_ozoznannye\\_snovideniya\\_i\\_dlya\\_chego\\_oni\\_nuzhny](https://samara.aif.ru/society/klyuchi_k_podsoznaniyu_chno_takoe_ozoznannye_snovideniya_i_dlya_chego_oni_nuzhny).
41. Banchenko D. What Motivates the Rich and Powerful to Fund Lucid Dream Research? Available at: <https://digital-report.ru/chto-pobuzhdaet-bogatyh-i-vlijatelnyh-finansirovat-issledovaniya-ozoznannogo-sna/>.
42. Kutsina M. Russia Will Study Lucid Dreams. Available at: [https://samara.aif.ru/society/v\\_rossii\\_budut\\_izuchat\\_ozoznannye\\_sny](https://samara.aif.ru/society/v_rossii_budut_izuchat_ozoznannye_sny).
43. Krasnogorskaya NV. Electromagnetic fields in the biosphere. Electromagnetic fields in the earth's atmosphere and their biological significance. Moscow: Science. 1984;1: 376..
44. Raduga M. 'I love you': the first phrase detected from dreams. Sleep Sci. 2022;15(2):149-157. doi:10.5935/1984-0063.20220035.
45. Электромагнитные поля в биосфере. Т.1. / под. ред. Н.В. Красногорской. - М.: Наука, 1984. - 375 с.
46. Электромагнитные поля в биосфере Т.2. / под. ред. Н.В. Красногорской. - М.: Наука, 1984. - 326 с.
47. Lovelock JE. Geophysiology, the science of Gaia. Rev. Geophys. 1989;27(2):215–222. doi:10.1029/RG027i002p00215.
48. Pavlov DG, Kokarev SS, Panchelyuga MS, Panchelyuga VA. Exploratory studies of spatio-temporal effects of the so-called hyperbolic, or H-field. Space and Time. 2012;(4). Available from: <https://cyberleninka.ru/article/n/poiskovyie-issledovaniya-prostranstvenno-vremennyh-effektov-tak-nazyvaemogo-giperbolicheskogo-ili-n-polya>
49. Golubev SN, Golubev SS. A look at the physical microworld from the position of a biologist. Vladivostok: Dalnauka; 2009.
50. Vopson MM. The second law of infodynamics and its implications for the simulated universe hypothesis. AIP Advances. 2023;13(10):105308. DOI: 10.1063/5.0173278
51. Segman Y. Everything Is Timelessly Connected: Metaphysics, Physics, Consciousness, Spacetime Travel, DNA, and the Dry Bones Prophecy (Ezekiel Ch. 37). Nat Sci. 2022;14:265-288. doi:10.4236/ns.2022.147026.
52. MacIsaac T. A New Theory of Consciousness: The Mind Exists as a Field Connected to the Brain. 2018. Available at: <https://scienceandnonduality.com/article/a-new-theory-of-consciousness-the-mind-exists-as-a-field-connected-to-the-brain/>
53. Grinde B. Describing and explaining consciousness. Neurosci Conscious. 2023;2023(1): niad009). DOI:10.1093/nc/niad009.
54. Seth AK, Bayne T. Theories of consciousness. Nat Rev Neurosci. 2022;23:439–452. DOI: 10.1038/s41583-022-00587-4
55. Reimann MW, Nolte M, Scolamiero M, et al. Cliques of Neurons Bound into Cavities Provide a Missing Link between Structure and Function. Frontiers in Computational Neuroscience. 2017;11. DOI:10.3389/fncom.2017.00048
56. Eleven or all twelve dimensions of your consciousness—fragment of the course 'The Art of Lucid Dreaming—The First Gate' 2020. Available at: <https://arcanum12th.education/documents/c62fd-ed9-70b3-4f77-ac3a-b8c8674ba1da>
57. Zhang N. Researchers discover a distributed brain network underlying neural representations of biological motion attributes. 2023. Available at: <https://medicalxpress.com/news/2023-05-brain-network-underlying-neural-representations.html>