



## НАУЧНЫЙ ЖУРНАЛ «ВЕСТНИК МЕДИЦИНСКОГО ИНСТИТУТА «РЕАВИЗ»: ИСТОРИЯ, ВЫЗОВЫ, ПЕРСПЕКТИВЫ

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**Резюме.** В работе проводится анализ траектории развития научного периодического издания «Вестник медицинского института «РЕАВИЗ»: Реабилитация, Врач и Здоровье» рассматриваются ключевые вызовы и проблемные аспекты, с которыми сталкивается редакционная коллегия журнала в процессе текущей работы. В целом внимание уделяется систематической коррекции основных векторов совершенствования редакционной политики в соответствии с лучшими международными практиками издания научных журналов, вопросам повышения качества публикуемых материалов, углублению процессов рецензирования и строгому отбору статей для публикации, привлечению авторов из различных регионов России и зарубежных стран, анализу перспективы развития практики публикации сопутствующих цифровых данных и ресурсов наряду с текстовыми материалами, повышению цитируемости и индексации журнала в авторитетных наукометрических базах данных, а также продвижению политики открытого доступа. По итогам анализа формулируются конкретные планы дальнейшего поступательного развития журнала «Вестник медицинского института «РЕАВИЗ».

**Ключевые слова:** академическое издательство; научная публикация; медицинское образование; открытый доступ; инновации в издательском деле; индексирование журнала; цитируемость; веб-аналитика.

**Конфликт интересов.** Шабалин В.Н. является главным редактором журнала, Лысов Н.А. – заместителем главного редактора, Супильников А.А. – членом редакционной коллегии, Павлова О.Н. и Аносова Е.Ю. – научными редакторами журнала, Самсонова Е.А. – заведующей редакцией, Яремин Б.И. – ответственным секретарём редакционной коллегии журнала. В принятии решения о публикации работы участия не принимали.

**Финансирование.** Исследование проводилось без спонсорской поддержки.

**Уведомление.** При подготовке данной работы для транскрибирования аудиозаписей, проверки грамматики, автокоррекции слов и пунктуации была использована нейросетевая большая языковая модель (LLM) claude-3-opus от компании Anthropic. Полученный с помощью ИИ текст был обязательно проверен и отредактирован человеком. Ни один фрагмент текста или иллюстрации в этой работе не был создан с помощью генеративных нейросетей.

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## THE SCIENTIFIC JOURNAL "VESTNIK OF THE MEDICAL INSTITUTE "REAVIZ": HISTORY, CHALLENGES, AND PERSPECTIVES

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**Abstract.** The paper analyzes the trajectory of development of the scientific periodical "Bulletin of the Medical Institute 'REAVIZ': Rehabilitation, Doctor and Health", examining the key challenges and problematic aspects faced by the journal's editorial board in the course of its current work. Overall, attention is paid to the systematic correction of the main vectors of improving editorial policy in accordance with the best international practices of publishing scientific journals, issues of improving the quality of published materials, deepening the review processes and strict selection of articles for publication, attracting authors from various regions of Russia and foreign countries, analyzing the prospects for developing the practice of publishing accompanying digital data and resources along with textual materials, increasing citation and indexing of the journal in authoritative databases, as well as promoting an open access policy. Based on the results of the analysis, specific plans for the further progressive development of the journal "Bulletin of the Medical Institute 'REAVIZ'" are formulated.

**Key words:** academic publishing; scientific publication; medical education; open access; innovations in publishing; journal indexing; citation metrics; web analytics.

**Competing interests.** Shabalin V.N. is the editor-in-chief of the journal, Lysov N.A. is the deputy editor-in-chief, Supilnikov A.A. is a member of the editorial board, Pavlova O.N. and Anosova E.Yu. are the scientific editors of the journal, Samsonova E.A. is the head of the editorial board, Yaremin B.I. is the executive secretary of the editorial board of the journal. They did not take part in the decision to publish the work.

**Financing.** The study was conducted without sponsorship.

**Disclosure.** In the preparation of this work, a large language model (LLM) claude-3-opus from Anthropic was used for transcribing audio recordings, grammar checking, word and punctuation autocorrection. The AI-generated text was mandatorily reviewed and edited by a human. No text fragments or illustrations in this work were created using generative neural networks.

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Undoubtedly, the dynamism of modern life often leads to unforeseen and worrying transformations. In this context, scientific publishing plays a significant role in identifying growth points and development trajectories in conditions of instability. It serves as a link between the past with its traditions and achievements of previous generations, on the one hand, and the future, to which these achievements need to be transmitted, on the other.

The journal team has had the honor of publishing the "Bulletin of the Medical Institute 'REAVIZ': Rehabilitation, Doctor and Health" (hereinafter referred to as the "Bulletin of REAVIZ") for 13 years. Initially representing a small university project, the journal has evolved into an effective tool for scientific growth and a platform for exchanging expert opinions. It should be noted that the "Bulletin" is not only a collection of published scientific works, but, first of all, it is people: the editorial board, the corps of reviewers, authors and readers who jointly systematize the knowledge gained and contribute to its further improvement. This article assesses the path traveled and determines the vector of further development of the journal.

The "Bulletin of REAVIZ", founded in Samara in 2011, has deep roots in the traditions of regional healthcare. Despite this, the journal's sphere of influence has constantly expanded beyond local problems. The editorial board, authors of articles and the readership of the journal mainly consist of specialists from federal institutions, which is a significant factor contributing to the growing popularity of the publication. At the same time, the journal maintains stable ties with the healthcare system of the Samara region, regularly publishing materials dedicated to the history of its development, achievements and outstanding figures. However, a significant part of the journal's publications is represented by works from various research institutions of the Russian Federation and foreign centers.

Throughout its existence, the journal has been funded from the budget of the Medical University "Reaviz". Such financial support is a kind of investment in the development of various areas of medical and biological sciences. Additional sources of funding for the journal are subscriptions, advertising, reprints, and institutional support. Publication in the "Bulletin of REAVIZ" is free for authors. In certain cases, paid services for preparing manuscripts for publication are allowed, but this does not affect editorial decisions.

The journal provides direct open access to its content, based on the principle that free open access to published research results contributes to an increase in the global exchange of knowledge. The open access policy corresponds to the definition of the Budapest Open Access Initiative (BOAI) and means that articles are available in open access on the Internet. This allows all users to copy and distribute the texts of these arti-

cles, upload their own scientific databases and use them for other legitimate purposes without financial, legal or other barriers.

The goal of the journal is to create an infrastructure for the scientific exchange of research results so that researchers, graduate students, students and practicing doctors of any medical institution can freely familiarize themselves with modern achievements in the scientific and practical fields of medicine. This helps to determine the direction of their own research work, provides a platform for discussion and scientific debate.

The "Bulletin of REAVIZ" constantly solves a number of fundamental tasks.

- Information and exchange of experience: publication of research results in the field of biology and medicine for the exchange of experience between scientists, teachers, graduate students, as well as healthcare organizers.

- Development of various branches of medical science and practice: dissemination of knowledge about new methods and technologies of rehabilitation aimed at improving the quality of life of the population, including people with disabilities, people with socially significant and orphan diseases.

- Promoting international cooperation: publication of articles by authors from the near abroad and other countries to strengthen scientific cooperation and exchange of experience.

- Ensuring quality and compliance with publication ethics: peer review of articles, plagiarism checking, disclosure of conflicts of interest and other measures.

- Archiving and accessibility: ensuring the availability of publications for the wider scientific community and the healthcare system.

- Promoting the training of scientific personnel: creating a platform for publishing the works of graduate students, young scientists and other specialists in the field of medicine and public health, with the aim of their professional growth.

The journal "Bulletin of REAVIZ" is multidisciplinary, which is due to its university status and the wide range of interests of its readership. However, the journal does not strive for absolute universality and focuses on works that represent high scientific achievements and contain new ideas for the development of medical science. The editorial board of the journal also welcomes works that include modern computational technologies, mathematical modeling, artificial intelligence methods and big data processing in medicine. The journal is interested in attracting articles that have both a fundamental and applied focus. The physiological section, traditional for the journal, allows laying the fundamental basis for certain clinical studies. The journal also publishes clinical cases, which equips doctors with options for action in non-standard surgical and therapeutic situations. The journal uses the CARE protocol for publishing clinical

cases to ensure a high level of reporting and gives the reader a clearer understanding of the conclusions and findings of published works. A significant number of publications in the journal are represented by the morphological section, which carries the main evidence data necessary for the development of both experimental and clinical medicine. The journal welcomes works on radiation diagnostics, modern methods of image processing and modeling, which lay the foundation for further scientific research.

The "Bulletin of REAVIZ" applies a double-blind peer review procedure to ensure an objective and impartial expert assessment of manuscripts submitted to the editorial office. After the initial technical examination conducted by the editorial board, the manuscript is sent to two independent reviewers who are recognized experts in the relevant field of research. Reviewers are selected from an extensive database of experts in such a way as to exclude potential conflicts of interest. Reviewers conduct a comprehensive assessment of the scientific work in terms of relevance, novelty, theoretical and practical significance, correctness of the methodology and validity of the conclusions.

Based on the results of the examination, reviewers provide the editorial board with reasoned conclusions with recommendations on the advisability of publication, the need for revision or rejection of the manuscript. The decision to publish, revise or reject the manuscript is made by the editorial board based on the conclusions of two independent reviewers. In case of contradictory assessments, a third reviewer is involved. The main reasons for rejecting works are materials that do not meet the criteria of scientific novelty and relevance, have insufficient factual data or their low quality, unacceptable borrowings, and excessive self-citation.

Currently, the level of rejected manuscripts in the journal is 62%, which indicates high requirements for the quality of submitted materials. At the same time, the editorial board of the journal orients reviewers not only to identify shortcomings but also to provide authors with recommendations for adjusting and improving the quality of submitted works. The objectivity of the journal's attitude to reviewing is evidenced by the fact that repeated analysis did not reveal significant differences in the frequency of rejection of manuscripts from institutions affiliated with the founders of the journal and third-party organizations.

One of the difficulties in the work of the journal is that the works of young authors who do not have sufficient competence in the relevant subject areas of knowledge are often screened out by the peer review system. In this regard, the journal pays special attention to working with novice authors, promotes the development of a network of schools for young scientists and teachers, within which they receive assistance in research methodology, analysis of scientific results and

preparation of journal articles in accordance with the requirements of the journal.

In some cases, it is difficult to assess the competence of the personalities of the author teams, consisting of several teachers and a large number of students who write literature reviews on various problems of practical healthcare. At the same time, the substantive participation and competence of the representatives of the author team in the collection and analysis of data on the topic of the article often raise doubts. If these doubts are significant and justified by reviewers, the manuscripts of such works are sent for revision of the composition of the authors.

The journal pays considerable attention to one of the most pressing problems of scientific methodology - the use of large language models and artificial neural networks. A number of journals publish methods for detecting materials generated by neural networks, which are considered as a new form of plagiarism and an evil that needs to be eradicated. "Bulletin of REAVIZ" also received works (mainly from young scientists) containing text generated using neural networks, sometimes contradicting common sense. These works were naturally rejected based on the results of peer review. However, the journal "Bulletin of REAVIZ" believes that the challenge posed to science by artificial neural networks has exceptional depth and complexity. It is quite likely that in the near future, a neural network will be able to create ready-made articles upon request, literature reviews with indication of sources, analysis and conclusions, and do it in a sufficiently competent, rich language and with originality of judgments. If the work represents a complex of activities of artificial and natural intelligence, then the question arises of determining the degree of personal authorship. Therefore, the authors of articles should indicate the tools that they used when processing not only factual data, but also the text of their works, for example, when translating, styling, literary processing, synonymization, identifying literary sources, etc.

At the same time, the editorial board of the journal "Bulletin of REAVIZ" in no case considers artificial neural networks as a negative factor in the development of science and admits the possibility of legalizing them as a differentiated variant of the research process. Neural networks, as a tool in human hands, can undoubtedly take place in scientific research and preparation of works. In the publications of the latest issues of the journal "Bulletin of REAVIZ", various neural network services are quite widely used for text processing, image processing and performing technical tasks. This in no way discredits the works created by human intelligence, but, on the contrary, emphasizes the high humanistic significance of scientific activity, since it is a new achievement of the human mind.

Modern trends in the field of scientific data publication have led to the emergence of a specific feature associated with the transformation of the role of printed and electronic versions of scientific journals. At the beginning of the existence of the journal "Bulletin of REAVIZ", the printed version was the only form of information dissemination. However, at present, readers access published materials mainly in digital format through the online version. This situation necessitates the adaptation of the way scientific articles are presented on the journal's website. For the convenience of readers' perception of articles on the journal's website, it is planned to post not only PDF versions, but also versions in HTML format and other formats that support adaptive layout. Despite the potential increase in the cost of hosting the journal when publishing full texts of articles in HTML format, the editorial board of the journal "Bulletin of REAVIZ" seeks to find optimal solutions to ensure wide access to research materials without reducing profitability. Collaboration with the Russian library Cyberleninka, which automatically extracts the content of articles and posts them on its website, is one of the steps in this direction. Observations show that the Google search engine often gives preference to results from Cyberleninka, since contextual search and efficient use of data are possible there.

Thus, modern features of scientific data publication dictate the need to adapt the ways of presenting scientific articles in electronic format. This approach increases the "visibility" and citation level of scientific works, which contributes to a more effective dissemination and use of scientific knowledge in the modern "digital" era.

One of the promising tasks of the journal "Bulletin of REAVIZ" is to publish not only the texts of scientific works, but also the corresponding datasets with which other researchers can conduct their own analyses. Such publications, as a rule, receive a high level of citation and are in demand by the scientific community.

Data that cannot be disclosed requires a special approach. They can be anonymized and placed in research data repositories with limited access, or presented in public access only in the form of metadata of research results with a description of the procedure for accessing them upon request.

The editorial board of the journal "Bulletin of REAVIZ" welcomes the provision of access to research data under the terms of Creative Commons free licenses. The publisher of the journal does not claim ownership of the research data provided by the author in the article.

Summarizing the challenges of the time, the journal "Bulletin of REAVIZ" forms plans for the development of its activities in the following areas: improving the quality of published materials and strict adherence to the criteria for selecting articles to ensure a high scientific level of the publication; attracting more high-quality manuscripts, including from external and foreign authors, to

expand the thematic coverage and increase the authority of the journal; improving the review process, ensuring objectivity and impartiality of the expert evaluation of submitted works; developing the practice of publishing not only textual materials, but also accompanying data (datasets), computer programs and other digital resources; increasing the citation of the journal and its indexing in authoritative international scientometric databases; promoting an open access policy and ensuring wide availability of published materials for the scientific community; modernizing the website and using modern IT solutions to improve content presentation and interaction with authors and readers; developing cooperation with leading scientific schools, attracting young researchers and educating a new generation of authors; improving editorial policy in accordance with the best international practices of publishing scientific journals; ensuring the financial stability of the publication and searching for additional sources of funding for development.

The implementation of the presented directions for the further development of the journal "Bulletin of REAVIZ" will be based on the general improvement of editorial policy, strict compliance with all international norms and rules for conducting the activities of a scientific periodical. The intellectual resource of the Medical University "Reaviz", its experienced and young scientific personnel, carrying out fundamental research, actively pushing science forward, transforming its classical methodology, adequately combining the capabilities of natural and artificial intelligence, is the supporting base for the further development of the journal. The formation of new approaches to obtaining and analyzing scientific data that meet the modern needs of medical science and practice will constantly enrich the journal and increase the interest of the readership in it.

The editorial board of the journal "Bulletin of REAVIZ" expresses deep gratitude to the authors who have been cooperating with the journal for many years, providing the results of their research. Special thanks to the entire team working on the publication: editors, translators, illustrators, layout designers and designers, whose efforts have led to the creation of a high-quality product. The journal is grateful to the NEICON Association, which provided an opportunity to develop the journal's website – an important tool for its promotion and increasing recognition. We thank the staff of elibrary, Cyberleninka and everyone who, with advice or practical assistance, contributed to the development of the publication.

We are convinced that the further progressive development of the journal is an integral part of our contribution to the progress of Russian and world medical science, which ultimately serves the well-being of patients and society as a whole.

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