

CONTEMPORARY TECHNOLOGIES IN THE DESIGN OF EDUCATIONAL PLATFORMS FOR LANGUAGE LEARNING: WEB 2.0 AND WEB 3.0

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Abstract. In the current educational context, technology plays a key role, especially in the development of socially oriented services for learning foreign languages. This article aims to identify the main aspects of designing an educational service for teaching foreign languages, taking into account the requirements and capabilities of Web 2.0 and Web 3.0 technologies. The study focuses on the importance of creating an educational platform integrated with social functions and adaptive design, which provides higher engagement and effectiveness of the educational process.

Particular attention is paid to the use of artificial intelligence to personalize learning, which allows you to adapt learning trajectories for each user and include pronunciation assessment tools important for language education. The paper also explores Web 3.0 capabilities, such as the adoption of blockchain technologies for educational contracts and digital IDs, and provides more secure storage for student data. In addition, the article examines the concept of content updates, multi-platform and integration with external resources, which ensures the relevance and versatility of the platform for users.

As part of the study, a survey of students was conducted to identify their preferences, needs and expectations regarding educational services. This made it possible to include in the development of the platform concept functions that meet the needs of students, for example, social interaction and the possibility of team learning. The recommendations received are aimed at creating successful educational platforms that take into account modern technological trends and are focused on increasing the efficiency of teaching foreign languages. A survey conducted among students made it possible to highlight key preferences regarding adaptive design, multifunctionality and social capabilities of the platform. The identified data became the basis for the creation of an educational platform that provides a personalized approach and maintains constant feedback from users. Thus, the model of a social network for learning foreign languages presented in the article reflects the current needs of students and meets modern requirements for educational technologies.

Key words: social networks, foreign language, Web 2.0, Web 3.0, educational technologies, flexible learning formats, blockchain, learning personalization, digital interaction

Introduction

The article provides a review of existing research in the field of foreign language education, identifying gaps and proposing new approaches based on the integration of Web 2.0 and Web 3.0 technologies into the educational process. In studying this issue, it was determined that scholars focusing on this area have concentrated on interface adaptability, including aspects of mobile adaptation [1]. Some researchers have also explored interactive elements in educational platforms, although often without considering the specifics of language learning [2]. Furthermore, early studies in artificial intelligence in education have outlined general principles of personalization but not always within the scope of language education

and not always including analysis of pronunciation assessment systems, particularly in the context of foreign language learning [3].

Existing research provides an overview of Web 3.0 technologies but rarely transitions to their practical application in education. Works related to blockchain typically focus on areas such as digital diplomas, with limited attention to educational contracts. In turn, as evidenced by the results of literature analysis, studies on the social functions of educational platforms shed light on the importance of student interaction but rarely in the context of language learning. Although many researchers have examined collaborative learning approaches, they often do so without linking them to the capabilities of social networks.

Thus, this article elaborates on the works of scholars who have studied various aspects of educational platforms and the principles of their design. The research employed the following approaches: literature review, analysis of existing platforms, and conducting surveys to identify student needs. The innovative methodologies proposed in the article are based on previous research, filling gaps in language education using innovative Web 2.0 and Web 3.0 technologies.

In the current digital age, technologies that shape the field of education are actively developing. In particular, social networks and Web 2.0 and Web 3.0 technologies occupy a special place, providing unique opportunities for learning foreign languages. The relevance of this research is driven by the need to create modern educational tools adapted to contemporary technological realities.

Existing platforms for language learning are limited in their integration with social networks and the use of Web 2.0 and Web 3.0 technologies, which reduces the effectiveness of learning and does not fully meet the needs of modern learners. Thus, this paper intends to study existing Web 2.0 and Web 3.0 technologies and their applicability in education, develop the concept of a social network service considering adaptive design and interactive features based on conducted surveys as well as explore the possibilities of applying artificial intelligence in personalizing language learning. The topic of using social networks in education and Web 2.0 and Web 3.0 technologies has been actively researched, but many aspects of their application in the context of language learning remain insufficiently studied. This study focuses on a comprehensive approach to creating a social network service that meets the modern requirements of foreign language learning.

Methods and materials

In this paper, we focus on the question how a social network service for foreign language learning could be developed by integrating the principles of Web 2.0 and Web 3.0, using modern technologies adapted to the needs of contemporary learners. In other words, we strive to comprehend if the establishment of a social network service that combines elements of Web 2.0 and Web 3.0, with the integration of artificial intelligence technologies, adaptive design, and blockchain, will enhance the effectiveness of the foreign language learning process, providing a personalized and interactive approach. The research itself contains several stages, namely:

1. Literature review and analysis of current trends. This stage included the study

of existing educational platforms and analysis of trends in the use of social networks and Web 2.0 and Web 3.0 technologies in language learning.

2. Investigation of Web 2.0 and Web 3.0 technologies. During this stage, the thorough analysis was conducted on the capabilities of Web 2.0 and Web 3.0 technologies and their applicability in the context of creating an educational service.

3. Conducting a survey. Initially, we developed a structured questionnaire for surveying students, considering the main research topics and then conducted a preliminary study to identify key questions and aspects to be assessed. Within this stage, we also distributed the questionnaires among students of L.N. Gumilyov Eurasian National University, particularly, carried out the survey among 98 students, including 62 students studying non-language specialties, processed and analyzed the obtained data, highlighting the main trends and preferences of students in the context of using social networks and educational services. Following this, we incorporated the survey results into the formation of the social network service concept and integrated the identified student preferences into the key aspects of design.

4. Service concept design. This stage encompasses the development of the concept of the social network service.

In order to attain the aims of the paper, we implemented a variety of methods including descriptive analysis, comparative analysis, modeling method, survey and social network analysis. Expected results comprise a developed algorithm for fostering a social network service with adaptive design, integrated Web 2.0 and Web 3.0 technologies, an artificial intelligence system, blockchain technologies, social functions, a content update system, and progress analytics. The survey results serve as the basis for understanding the preferences and needs of students in the field of language learning. This data is integrated into the service design process, ensuring a more accurate match to user expectations. The research stages, methods, and expected results are aimed at creating an innovative educational product that combines advanced technologies and social aspects for more effective foreign language learning.

Results

The literature review conducted in this research demonstrates that both Kazakhstani and international studies actively explore the use of innovative technologies in education. For instance, G.I. Baigunisova, A.U. Tazhieva, and A.K. Bolatova, in their work «The Use of Web 2.0 Tools in Teaching English as a Foreign Language», examine the role of Web 2.0 tools in developing students' productive and receptive language skills. Their practical study indicates that teachers highly value Web 2.0 for improving language skills due to their awareness of its benefits in education [4, p. 228].

Similarly, Sh.M. Babaeva emphasizes the potential of Web 2.0 and Web 3.0 technologies to enhance teaching and learning. In her work «Application of Web Services Technologies Web 2.0, Web 3.0 in the Classes of Special Disciplines in the Educational Process», she highlights that these technologies make learning more interactive and visual, enable individualized approaches, and save time on knowledge

assessment, improving feedback efficiency [5, p. 2]. This is particularly relevant for foreign language instruction, where personalization and interactivity are essential for success.

Foreign researcher N.V. Leshchev, in his study «The Use of Web 3.0 Technology in the Field of Education», notes that integrating Web 3.0 technologies enhances learning outcomes by creating intelligent systems that adapt to students' needs, providing personalized recommendations and materials [6, p. 135].

The adoption of innovative technologies necessitates a comprehensive approach, including teacher training, infrastructure development, and methodological updates. Studies confirm that correctly implemented technologies significantly improve educational quality, aligning it with societal needs. Educational institutions should support these innovations through technical resources and new pedagogical approaches that leverage Web 2.0 and Web 3.0 capabilities.

Web 3.0 technologies, through artificial intelligence and machine learning, allow for personalized learning paths. A.S. Okhryamkina and N.V. Buzhinskaya observe that such technologies create individual educational trajectories, enhancing material retention [7, p. 5].

Additionally, R.M. Kubova and V.V. Shamraeva stress the value of automating monitoring and evaluation processes, making assessments more transparent and objective [8, p. 38]. V.V. Gnedenko and A.V. Tyutyayev underline the importance of electronic educational and methodological complexes, which integrate multimedia resources and improve access to diverse materials, thereby elevating education quality [9, p. 88].

Thus, research shows that integrating Web 2.0 and Web 3.0 technologies into the foreign language learning process is not only possible but also necessary to create a more dynamic, interactive, and effective educational environment. Educational institutions should strive to modernize their methods and infrastructure to fully leverage the advantages offered by modern technologies. The application of these technologies requires a deep understanding of pedagogical theories and methodological approaches, which allows for effectively integrating innovations into the foreign language learning process.

As part of our study, a survey was conducted involving students of language and non-language specialties at the L.N. Gumilyov Eurasian National University. A total of 98 students participated, 62 of whom study non-language specialties such as «Tourism», «Pedagogy and Psychology», and «Journalism». The respondents should represent the target audience of our future service.

A questionnaire was proposed for designing a social network service for foreign language learning in the context of Web 2.0 and Web 3.0, adapted from D.E. Onorin [10].

1. Experience in language learning:
 - How long have you been studying a foreign language?
 - What methods and resources have you used for learning before?
2. Use of social networks:
 - How often do you use social networks?

- Which social networks do you prefer?
- Do you use social networks for educational purposes?
- 3. Needs in foreign language learning:
 - What are the main difficulties you encounter when learning a foreign language?
 - What aspects of language learning are important to you (grammar, speaking practice, reading, writing)?
- 4. Technology preferences:
 - Which devices (computer, smartphone, tablet) do you prefer to use for learning?
 - What is more important to you: ease of use or advanced features?
- 5. Interactivity and social functions:
 - What role do interactive elements play in language learning?
 - Is it important for you to interact with other users in the context of learning?
- 6. Interest in Web 3.0 technologies:
 - Are you familiar with the concept of Web 3.0?
 - Do you consider the use of Web 3.0 technologies important in educational services?
- 7. Security and privacy:
 - How important are data security and privacy issues to you when using educational platforms?
- 8. Learning format preferences:
 - What is more important to you: individual learning or group sessions?
 - Do you prefer a structured course or a more flexible format?
- 9. Additional features:
 - What additional features (gamification, progress analytics, etc.) would interest you in a social network service for language learning?
- 10. Expectations from the social network service:
 - What are your expectations from an ideal social network service for foreign language learning?

These questions were aimed to help us gather information about the needs and preferences of our target audience, which can be used in the design and development of a social network service for foreign language learning in the context of Web 2.0 and Web 3.0. The analysis of the survey results depicted that language specialty students generally spend more time learning languages, but non-language specialty students are more active in using online courses (Diagram 1).

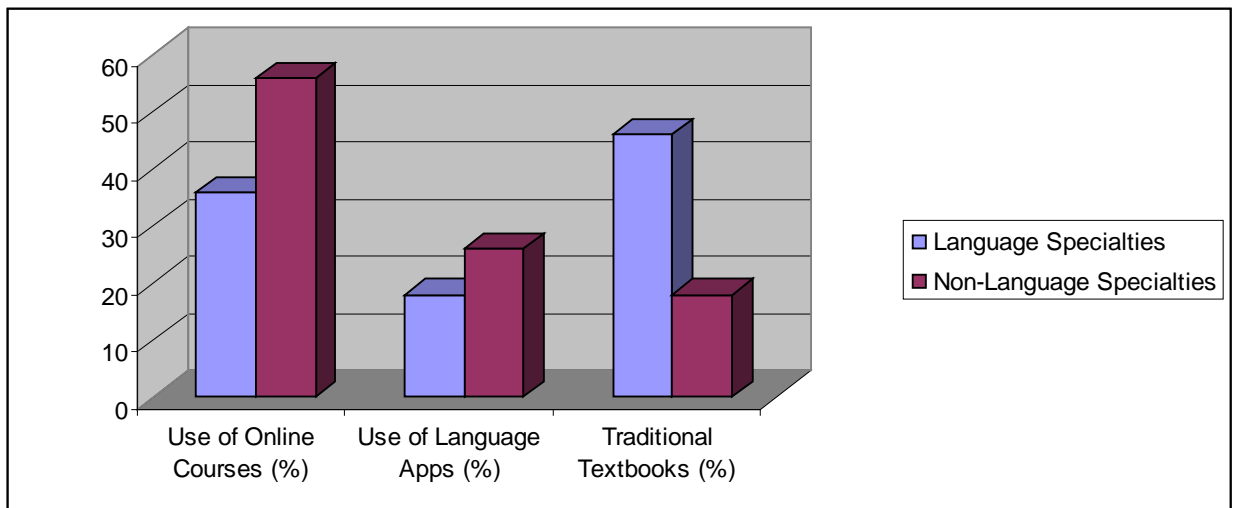


Diagram 1 - Experience in language learning and learning methods

Most students prefer Instagram for daily use. Educational purposes are actively pursued by all, especially language specialty students (Table 1).

Table 1 - Use of social networks for learning

	Daily use (%)	Preferred social networks	Use for educational purposes (%)
Overall	58	Instagram (42), Facebook (35), Twitter (23)	76
Language specialties	56	Instagram (40), Facebook (33), Twitter (27)	78
Non-language specialties	62	Instagram (45), Facebook (37), Twitter (18)	74

According to the survey, it can be concluded that non-language specialty students are more prone to difficulties in grammar, while language specialty students highlight conversational practice. Furthermore, approximately 60% of non-language specialty students encountered issues in writing and consequently this skill emerged as a critical focus area while their counterparts demonstrated comparatively better competency in writing. Students of both groups found reading the least arduous of the skills.

Smartphones are the most popular device for language learning. Non-language specialty students are more focused on the ease of use than on advanced features (Table 2).

Table 2 - Technology preferences

	Preferred Device (%)	Importance of ease of use (%)	Importance of advanced features (%)
Overall	Smartphone (46), computer (32), tablet (22)	58	42
Language specialties	Smartphone (44), computer (34), tablet (22)	56	44
Non-language specialties	Smartphone (48), computer (30), tablet (22)	60	40

Students in both groups highly value interactive elements namely 80% of language specialty students highlight the significance of interactivity within language acquisition whereas slightly lower, around 70% of non-language specialties students reckon the same as well. As far as the aspect of the interaction with other users is concerned, roughly 90% of language specialties students prioritize it as a principal component of their language learning. Similarly, about 80% of non-language specialties students emphasized the value of user interaction.

Students are generally not very familiar with the concept of Web 3.0, but a high percentage consider it important for education. For instance, 36% of students overall are aware of Web 3.0, with 32% among language specialty students and 40% among non-language specialties. However, 78% of students recognize the importance of using Web 3.0 technologies for educational purposes. This includes 80% of language specialty students and 76% of non-language specialty students.

Data security is a critically important issue for all students, regardless of their field of study. Overall, 92% of respondents highlighted the importance of this aspect, with 94% among language specialty students and 90% among non-language specialties.

The preferred learning format is also significant for students. Most of them favor group sessions, particularly those studying language specialties. Overall, 62% of students prefer group sessions, including 64% of language specialty students and 60% of non-language specialty students. Conversely, individual learning is more popular among non-language specialty students (50% compared to 42% among language specialty students).

Students highly value additional features such as gamification and progress analytics, which could become key aspects in designing an educational platform. In total, 88% of students expressed interest in gamification, with 86% among language specialties and 90% among non-language specialties. As for progress analytics, 76% of students noted its importance, including 78% of language specialty students and 74% of non-language specialties.

Finally, most students emphasized that they primarily expect ease of use from a social network service, underscoring the significance of user-friendly interfaces.

Thus, as shown by the survey results, students demonstrate great interest in using social networks for language learning, preferring convenient and interactive learning formats. The importance of data security and interest in advanced technologies were also noted. These results will be a key factor in further designing the social networking service. In addition, based on the findings, it is unequivocal that students express profound interest in learning languages through social networks, prefer convenient formats, and support the use of advanced Web 3.0 technologies. Nevertheless, the issues of data security and privacy do have high priority. These results can serve as a basis for creating a unique social networking service that meets the needs of students at the Eurasian National University.

The project to create a social networking service for language learning based on the survey results looks promising and in high demand. The combination of modern technologies, social interaction, and an individual approach will provide students

with an effective and engaging tool for language learning in Web 2.0 and Web 3.0 environments.

Discussion

The process of designing a social networking service for foreign language learning in the Web 2.0 and Web 3.0 milieu requires a systematic and thorough approach. Each stage of development aims to create an innovative and effective educational product capable of combining principles of adaptability, interactivity, and advanced technologies. In this context, special attention is paid to adaptive design and the implementation of interactive elements to ensure high user satisfaction and effectiveness.

The first stage of designing the social networking service for language learning includes planning the design and defining interactive elements to create a modern and responsive interface. Analyzing adaptability requirements plays a key role in this process, considering the variety of devices and platforms the service will be used on. Developing an adaptive design includes not only the appearance of the interface but also the organization of content to ensure ease of use on various devices.

The second stage involves researching the application areas of artificial intelligence in education, especially in the context of language learning. Analyzing applications of machine learning and AI in this field facilitates identifying the best practices and methods that can be adapted for the created service. Developing a pronunciation analysis system focuses on creating a system capable of analyzing users' pronunciation. At this stage of design, the main focus is on maximizing the use of AI capabilities to enhance the effectiveness and satisfaction of service users.

The third stage of design focuses on integrating modern Web 3.0 and blockchain technologies to create an innovative and decentralized educational platform. Studying Web 3.0 technologies begins with an overview of decentralization concepts, smart contracts, and interoperability. Analyzing smart contracts becomes key to creating decentralized educational contracts, providing a transparent and reliable educational experience. This stage of the design permits not only to implement advanced technologies but also to establish new standards in the field of security, transparency, and effective management of the educational process.

The fourth stage of design focuses on creating a social educational environment that stimulates interaction and collaborative learning. Analyzing existing social platforms commences from studying successful examples of social networks and educational platforms, identifying features that contribute to active interaction within the community.

The fifth stage of design pays sharp attention to the continuous updating of educational content and the implementation of an analytics system to monitor user progress. Creating a content update system involves developing mechanisms for regularly updating materials considering current educational trends. Integrating analytics tools enables comprehensive tracking of user activity, assessing their progress, and analyzing the success of learning.

The sixth stage of design emphasizes various devices and platforms, as well as

integrating with external educational resources. Defining platforms begins with researching popular devices and operating systems, allowing the development of adaptive design and ensuring a smooth user experience.

The seventh stage centers on developing test scenarios, pilot testing, and systematically collecting feedback. Creating detailed test scenarios allows evaluating all aspects of the platform, and pilot testing with a limited group of users assists in identifying shortcomings before full launch. Collecting and analyzing feedback provides valuable input for further improving the service.

A staged approach to designing and implementing components will ensure the systematic development of the service, considering user needs and enhancing the quality of the educational experience.

Table 3 presents the components and results of the design of the social networking service as well as provides a compact overview of the key components implemented in the social networking service for foreign language learning, as well as the main projected outcomes to be achieved through their implementation. Each component is a vital element in ensuring an effective and interactive educational process.

Table 3 - Key components and design results of the social networking service

Component	Content
1. Adaptive design and interactive features	- Development of an adaptive interface, ensuring ease of use across various devices.
	- Integration of chats, webinars, and gamified tasks to enhance user engagement.
2. Use of Artificial Intelligence (AI)	- Implementation of machine learning mechanisms to personalize learning, considering individual needs.
	- Development of a pronunciation analysis system to improve speaking skills.
3. Use of Web 3.0 and blockchain technologies	- Implementation of Web 3.0 technologies to create decentralized educational contracts, ensuring transparency in user achievements.
	- Application of blockchain technologies for secure storage of personal data and user achievements.
4. Social features and collaborative learning model	- Capability to create groups and educational communities for collaborative learning.
	- Integration of social features for rating and commenting on materials.
5. Content updates and progress analytics	- Regular updating of educational content to meet user needs.
	- Provision of tools for tracking progress and analyzing language learning success.
6. Multi-platform support and integration with external resources	- Support for access through various devices to enhance user convenience.
	- Integration with external resources (online dictionaries, language apps, social media) to enrich the learning experience.
7. Testing results and user feedback	- Pilot tests confirmed high ratings for usability and learning effectiveness.
	- Positive feedback from users highlighting the application of artificial intelligence, social features, and integration of Web 3.0 technologies as key advantages of the service.

The results presented in the table reflect the success of applying Web 2.0 and Web 3.0 technologies in the service design, as well as positive user impressions that support the effectiveness and value of the created platform.

Conclusion

Based on a thorough analysis of survey results, it becomes evident that students in the 21st century show increased interest in innovative language learning methods, especially in the context of using social networks and advanced technologies. Considering these results, the necessity of developing a specialized social networking service for foreign language learning becomes a relevant task. Thus, throughout the research process, the following key stages of design were identified based on survey results:

1. The initial stage includes creating an adaptive interface capable of providing comfortable usage on various devices, as well as integrating interactive elements to enhance engagement levels.
2. Implementation of machine learning mechanisms for personalized learning, pronunciation analysis, and providing individual recommendations.
3. Development of decentralized educational contracts using Web 3.0 and blockchain technologies to ensure transparency and security.
4. Creation of functionality for forming groups and educational communities, as well as integrating social features for user interaction.
5. Regular updating of educational content according to user needs and implementing an analytics system to monitor progress.
6. Supporting platform use on various devices and integrating with external educational resources.
7. Conducting pilot testing to assess effectiveness and gather user feedback for further service improvement.

The project to create a social networking service for foreign language learning based on the survey results appears promising and in demand. The combination of modern technologies, social interaction, and personalized approach will provide students with an effective and engaging tool for language learning in the terms of Web 2.0 and Web 3.0.

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ТІЛДІК ОҚЫТУҒА АРНАЛҒАН БІЛІМ БЕРУ ПЛАТФОРМАЛАРЫН ЖОБАЛАУДАҒЫ ЗАМАНАУИ ТЕХНОЛОГИЯЛАР: WEB 2.0 ЖӘНЕ WEB 3.0

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Андатпа. Қазіргі заманғы білім беру контексі жағдайында технологиялар, әсіресе шет тілдерін үйрену үшін әлеуметтік бағдарланған сервистерді әзірлеуде негізгі рөл атқарады. Бұл мақала Web 2.0 және Web 3.0 технологияларының талаптары мен мүмкіндіктерін ескере отырып, шет тілдерін оқытуға арналған білім беру сервисін жобалаудың негізгі аспектілерін анықтауды мақсат етеді. Зерттеу оқу процесінің неғұрлым жоғары тартымдылығы мен тиімділігін қамтамасыз ететін әлеуметтік функциялармен және бейімделген дизайнмен интеграцияланған білім беру платформасын құрудың маңыздылығына назар аударады.

Оқытуды дербестендіру үшін жасанды интеллектті пайдалануға ерекше назар аударылады, бұл оқу траекторияларын әрбір пайдаланушыға бейімдеуге және тіл білімі үшін маңызды айтуды бағалау құралдарын қосуға мүмкіндік береді. Мақалада сондай-ақ білім беру келісімшарттары мен сандық куәліктер үшін блокчейн-технологияларды енгізу сияқты Web 3.0 мүмкіндіктері зерттеледі, сондай-ақ студенттердің деректерін неғұрлым қауіпсіз сақтау қамтамасыз етіледі. Бұдан басқа, мақала контентті жаңарту тұжырымдамасын, көп платформалылықты және сыртқы ресурстармен интеграцияны қарастырады, бұл пайдаланушылар үшін платформаның өзектілігі мен әмбебаптығын қамтамасыз етеді.

Зерттеу шеңберінде студенттердің білім беру сервисіне қатысты артықшылықтарын, қажеттіліктері мен күтулерін анықтау үшін сауалнама жүргізілді. Бұл тұғырнаманың тұжырымдамасын әзірлеуге студенттердің сұранысына сәйкес келетін функцияларды қосуға мүмкіндік берді, мысалы, әлеуметтік өзара іс-қимыл және командалық оқыту мүмкіндігі. Алынған ұсынымдар қазіргі заманғы технологиялық үрдістерді ескеретін және шет тілдерін оқытудың тиімділігін арттыруға бағытталған табысты білім беру платформаларын құруға бағытталған. Студенттер арасында жүргізілген сауалнама платформаның адаптивті дизайнына, көпқырлылығына және әлеуметтік мүмкіндіктеріне қатысты негізгі артықшылықтарды бөліп көрсетуге мүмкіндік берді. Анықталған деректер дербес тәсілді қамтамасыз ететін және пайдаланушылармен тұрақты кері байланысты қамтамасыз ететін

білім беру платформасын құру үшін негіз болды. Осылайша, мақалада ұсынылған шет тілдерін үйренуге арналған әлеуметтік желі моделі студенттердің өзекті қажеттіліктерін көрсетеді және білім беру технологияларына қойылатын қазіргі заманғы талаптарға сәйкес келеді.

Тірек сөздер: әлеуметтік желілер, шетел тілі, Web 2.0, Web 3.0, білім беру технологиялары, икемді оқыту форматтары, блокчейн, оқытуды дербестендіру, сандық өзара әрекет

СОВРЕМЕННЫЕ ТЕХНОЛОГИИ В ПРОЕКТИРОВАНИИ ОБРАЗОВАТЕЛЬНЫХ ПЛАТФОРМ ДЛЯ ЯЗЫКОВОГО ОБУЧЕНИЯ: WEB 2.0 И WEB 3.0

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Аннотация. В условиях современного образовательного контекста технологии играют ключевую роль, особенно в разработке социально-ориентированных сервисов для изучения иностранных языков. Данная статья ставит целью выявить основные аспекты проектирования образовательного сервиса для обучения иностранным языкам с учётом требований и возможностей технологий Web 2.0 и Web 3.0. Исследование акцентирует внимание на важности создания образовательной платформы, интегрированной с социальными функциями и адаптивным дизайном, который обеспечивает более высокую вовлечённость и эффективность учебного процесса.

Особое внимание уделено использованию искусственного интеллекта для персонализации обучения, что позволяет адаптировать учебные траектории под каждого пользователя и включать инструменты оценки произношения, важные для языкового образования. В статье также исследуются возможности Web 3.0, такие как внедрение блокчейн-технологий для образовательных контрактов и цифровых удостоверений, а также обеспечивается более безопасное хранение данных студентов. Кроме того, статья рассматривает концепцию обновления контента, мультиплатформенность и интеграцию с внешними ресурсами, что обеспечивает актуальность и универсальность платформы для пользователей.

В рамках исследования проведён опрос студентов, чтобы выявить их предпочтения, потребности и ожидания в отношении образовательного сервиса. Это позволило включить в разработку концепта платформы функции, которые соответствуют запросам студентов, например, социальное взаимодействие и возможность командного обучения. Полученные рекомендации направлены на создание успешных образовательных платформ, учитывающих современные технологические тенденции и ориентированных на повышение эффективности обучения иностранным языкам. Анкетирование, проведённое среди студентов, позволило выделить ключевые предпочтения, касающиеся адаптивного дизайна, многофункциональности и социальных возможностей платформы. Выявленные данные стали основой для создания образовательной платформы, которая обеспечивает персонализированный подход и поддерживает постоянную обратную связь с пользователями. Таким образом, представленная в статье модель социальной сети для изучения иностранных языков отражает актуальные потребности студентов и соответствует современным требованиям к образовательным технологиям.

Ключевые слова: социальные сети, иностранный язык, Web 2.0, Web 3.0, образовательные технологии, гибкие форматы обучения, блокчейн, персонализация обучения, цифровое взаимодействие

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