

Artificial intelligence in social media and its impact on language

Original Study

Baktygul Abdykhanova
Department of Foreign Languages
Shakarim University
071410, 20A Glinka Str., Semey, Republic of Kazakhstan

Lyazat Meirambekova
Department of International Relations
L.N. Gumilyov Eurasian National University
010008, 2 Satbayev Str., Astana, Republic of Kazakhstan

Aliya Zhumagulova
Department of Kazakh Philology and Journalism
Shakarim University
071410, 20A Glinka Str., Semey, Republic of Kazakhstan

Gulnur Saganayeva
Department of Kazakh Philology and Journalism
Shakarim University
071410, 20A Glinka Str., Semey, Republic of Kazakhstan

Assem Kassymova
Higher School of Philology
Shakarim University
071410, 20A Glinka Str., Semey, Republic of Kazakhstan

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Abstract. The aim of the study was to determine how computational linguistics tools are changing the use of the Kazakh language in the digital environment. The research explored the features of various artificial intelligence (AI) types, including Natural Language Processing (NLP) and machine learning. To achieve the research goal, survey, comparative analysis, and content analysis methods were used. It was proved that AI facilitates the processing of large volumes of textual data, and correctly selected algorithms are used for automatic translation or text generation for social media content. The focus of the study was on the functioning of AI in social media platforms like Facebook, Instagram, TikTok, and WhatsApp. During the research, an online survey of 200 respondents was conducted, including users of these platforms from Kazakhstan and the USA, to assess the impact of AI on social media. Processing the surveys of English-speaking participants was carried out to study the global practices of AI's influence on language in social media. Based on the research, the study outlined the features of the formation of new vocabulary and changes in grammar and syntax. It was proven that content personalization through AI adapts text according to consumer needs. However, to maximize the potential of this technology, it is necessary to improve machine translation algorithms, enhance data quality, and preserve the authenticity of language.

The study also identified the features of the impact of social media on language in Kazakh and English cultures. The research revealed that AI-driven content automation is changing the linguistic landscape of social media by simplifying syntax, popularizing neutral styles, introducing new words and expressions, and standardizing digital language. The results of the study can be used to develop recommendations for the effective use of AI in social media while preserving linguistic authenticity and considering cultural peculiarities.

Keywords: machine translation, Natural Language Processing (NLP), slang, digitalization, standardization, deep-fake audio and text, globalization.

1. INTRODUCTION

The relevance of the study of artificial intelligence (AI) in social media and its impact on language is determined by the rapid development of technologies and their penetration into everyday communication. AI algorithms are actively used for content moderation, automatic translation, text generation, etc. This influences the structure and dynamics of speech, contributing to the appearance of new words, abbreviations, and stylistic features. For example, the widespread use of generative AI tools such as ChatGPT (from 2022 onward) has popularized expressions like “AI-generated content,” “prompting,” and “hallucination” (referring to fabricated outputs), while automated recommendations and predictive text features encourage shorter, simplified sentence structures and emoji-based reactions in platforms such as Facebook and Instagram. At the same time, the issue of potential threats arises, including the standardization of speech, the loss of unique linguistic features, and the spread of algorithmically generated narratives. Therefore, studying this phenomenon is important for understanding contemporary linguistic processes and their further development.

AI is increasingly shaping linguistic culture and online communication styles. Personalization algorithms create individualized language patterns, content moderation influences language norms, and multilingual models facilitate cross-cultural communication (Mizin, Petrov 2021; Chonmurunova, Kulpoldieva 2025). Generative models further blur the line between human and algorithmically generated text, highlighting strategic approaches to AI use in digital environments.

The influence of AI on language in social media has been the subject of numerous international studies. On a global scale, researchers have analysed how AI algorithms affect speech formation in social media, particularly through automated text modelling, machine translation, and content generation. According to Alawneh et al. (2023), AI technology is rapidly changing the functioning of social media platforms, promoting communication and content exchange between users. Kolosiuk and Zinovatna (2024) noted that the use of AI-based automated social media management systems can simplify content creation, publication, and analysis, increasing efficiency and audience engagement strategies. However, concerns about the loss of linguistic diversity and the spread of algorithmically defined language patterns have been raised by Curzan et al. (2023) in their discussion of

language standardization and linguistic subordination, as well as by Hohenstein et al. (2021), who highlight the influence of AI systems on users’ language production and interaction styles. In the study Hajli et al. (2021), the tool for early detection of harmful social bots in social media is discussed. Social bots are automated accounts that can spread false information, escalate disputes, or engage in fraudulent activities, posing risks to online communication and public discourse. The study highlights the importance of identifying these bots early to prevent misinformation and manipulation on digital platforms. Hohenstein et al. (2021) pointed out that the use of algorithmic responses improves communication effectiveness, utilizing positive emotional language and positive evaluations of communication partners. However, these risks change users’ language production and cause negative perceptions.

In Kazakhstan, research on AI focuses on adapting technologies for the Kazakh language, addressing challenges in machine translation, language recognition, and automated text analysis. Specialized NLP models are needed due to variations in social media language and the language’s complex morphology (Abdygalym et al. 2025; Bosumbaeva et al. 2025).

Previous research on the influence of AI on language in social media has mainly focused on its technical aspects, such as automatic translation, speech recognition, and content moderation. However, the long-term impact of AI on language norms, stylistics, and the authenticity of communication, particularly regarding changes in the perception of information and users’ language behaviour, remains insufficiently studied. This study seeks to analyse the influence of AI on the digital progression of the Kazakh language and to ascertain the primary difficulties and prospects for its advancement in online contexts. Key research questions include how AI technologies influence language use, communication patterns, and content creation, and what strategies can support the preservation and modernization of Kazakh in digital spaces. The findings indicate that AI can both enhance language accessibility and pose challenges to linguistic norms, highlighting the need for specialized NLP models, high-quality corpora, and strategic integration of Kazakh into global digital platforms.

2. THEORETICAL OVERVIEW

AI is transforming the way we communicate, especially in the realm of social media. Its impact on language

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is multifaceted, affecting aspects such as vocabulary, grammar, syntax, and emotional tone of speech. First, AI facilitates the rapid spread of new words related to technology and abbreviations for more convenient communication in the online space, such as “large language model” (LLM), “AI-generated,” “prompt engineering,” “chatbot,” and the verb “to prompt,” which have quickly entered everyday digital discourse. Second, AI contributes to the spread of Anglicisms and other borrowings, leading to language mixing and the creation of new hybrid forms. Third, due to the speed of communication in the online space, there is a trend towards simplifying grammatical constructions, using incomplete sentences and abbreviations.

This research area has been addressed in the study of Corti and Yang (2023). The results of this study showed that generative methods of AI allow automatic simplification of text at the lexical and syntactic levels, reducing linguistic complexity while retaining the original meaning. Research on language models by Xu and Poo (2023) showed that large language models (LLMs) demonstrate potential for the development of artificial general intelligence (AGI), exhibiting excellent generalization abilities in NLP, computer vision, and other generative tasks. Asher and Zweigenbaum (2020), investigating the role of AI in language processing, noted that AI has made a significant contribution to NLP, particularly in logical and discursive aspects, as well as in machine learning. The study of Matsiievskiy et al. (2024) indicated that AI technologies can effectively convert code between different programming languages, preserving semantics and logic while maintaining patterns and dependencies of the original code. Zou and Reinders (2023) explored a new area related to the use of AI in language learning. The result of this research confirmed that AI technology can improve language learning by increasing the accuracy and efficiency of mastering it.

AI allows for the analysis of large volumes of textual data, identifying popular topics, trends, and changes in language usage. One of the research areas is studying the issues related to the use of AI in social media. These include the creation and dissemination of fake news, ethical issues, data privacy, and the imperfection of machine translation, among others. Hajli et al. (2021) studied this problem and noted that AI-based social bots can spread misinformation on social media, creating problems for organizations, making it crucial to understand their intentions for managing their use. Research by Tomassi et al. (2024) focused on issues such as the spread of misinformation and malicious content on various platforms, recurring themes in fake news and their visibility, the role of AI as an authoritative agent and/or distributor, and strategies to combat information disorder. Although AI presents both potential and problems for digital language utilisation, alleviating adverse effects – such as misinformation – necessitates strategies that enhance digital literacy and cultivate critical thinking among users.

Another important aspect of research in this field was studying machine translation to improve translation

algorithms. In the study of Sabo et al. (2024), it was noted that AI has quickly become a new technology for the translation industry in the form of LLMs. However, one of the main problems affecting the quality and reliability of this translation is terminology. Therefore, controlling terminology using AI will significantly improve the quality of machine translation, reduce post-editing costs, and increase the overall translation productivity. This issue was raised in the research of Kolin et al. (2021), who pointed out that machine translation technologies mainly focus on grammatically correct translation of word sequences, but they do not yet incorporate dynamic world models.

In the context of Kazakhstan, studies on AI and language in social media focus on adapting AI to the Kazakh language. This includes improving machine translation algorithms, Kazakh language recognition, and automated text analysis. On platforms such as Instagram and X, text posts and comments often deviate from standard language norms, highlighting the need for specialized NLP models and high-quality linguistic corpora. Research has shown that models such as LSTM classifiers and root-based algorithms can correct or classify Kazakh texts, while generative AI tools assist in paraphrasing, content creation, and machine translation, addressing the challenges posed by Kazakh morphology (Asmaganbetova et al. 2024; Kassenkhan et al. 2024; Rakhimova, Abdrazakh 2022; Zhenisbekovna 2024). These developments demonstrate how AI contributes to both the modernization and standardization of Kazakh language use online.

Social media platforms have integrated AI technology into their algorithms to optimize user interaction. However, the impact of AI on social media is a topic of debate. Mohamed et al. (2024) pointed out that the influence of AI on social media content is a complex issue, with both positive and negative consequences. Research by the scholars confirmed that AI algorithms can improve user interaction by providing personalized content. However, there are concerns that they may also lead to the spread of misinformation and the creation of filter bubbles. To mitigate these potential negative consequences, it is important to promote transparency, human moderation, and media literacy, which in this context refers to users’ ability to critically evaluate content, recognize misinformation, and make informed decisions about the information they consume. Hohenstein et al. (2021) believed that the use of algorithmic responses enhances communication efficiency, utilizing positive emotional language and positive feedback from communication partners. The scholars noted that intelligent response systems aim to make text creation more efficient by relying on both general and user-specific text corpora to predict what a person might enter and generating one or more suggested responses from which the user can choose when replying to a message.

Thus, the review of existing research on this topic showed that AI significantly influences the development of language in the digital environment. AI contributes to the emergence of new words, changes in grammatical

constructions, and the creation of new forms of communication. At the same time, it generates a number of problems, such as the spread of misinformation, algorithmic bias, and privacy threats. Positive aspects include content personalization, improvement of machine translation, and the development of new tools for language learning. However, to fully harness the potential of AI, it is necessary to develop effective regulatory and control mechanisms and to enhance media literacy, understood here as users' ability to critically evaluate online content, identify misinformation, and engage responsibly with digital platforms – goals that this article seeks to promote through discussion of educational strategies and user-centred interventions.

3. MATERIALS AND METHODS

The goal of this research led to the use of research methods such as comparative analysis, content analysis, and surveying. The analysis method was used to study the features of AI functioning in linguistics and to outline the characteristics of AI types in linguistics.

During the study, survey data were collected between March and May 2024 using random sampling through an online survey of 200 respondents: 100 from Kazakhstan and 100 from the USA, Instagram, TikTok, and WhatsApp users, aged 17 to 23 years. Random sampling was carried out using a random number generator on the PILI.APP platform. A list of potential respondents was created, and then 200 people were selected from the list using the random number generator. The choice of the USA for the study was due to the fact that this country is one of the leaders in the development of technologies and social media. This allowed for a comparative analysis of AI's influence in the studied countries. The age range (17-23 years) was chosen because young people are the most active users of social media, and they are particularly prone to using new linguistic forms and technologies (Nabidullin, Ordabaev 2021). The survey was conducted from December 1, 2024, to January 31, 2025.

In the introduction to the survey, it was stated that respondents' anonymity is guaranteed (names and email addresses are not collected), the purpose of the research was explained, and how the responses would be used. It was also mentioned that the survey is conducted only with the voluntary participation of the respondents, confirmed by written consent, including permission to publish the obtained results. The empirical study was conducted according to current standards and professional ethical codes, specifically the Code of Ethics of the American Sociological

Association and the European Commission's Guidelines on Ethics and Data Protection. The research was based on the Facebook social network, where potential respondents were sent a link to the survey in Google Forms. Facebook was chosen as the platform for posting the survey because it has a wide audience in both countries and does not require personal phone number data (as WhatsApp does) to post a link to the survey in Facebook groups.

The first stage of developing the questionnaire was the introductory part. It indicated the goal and the estimated time for the survey. Next, for analysis, it was necessary to obtain data from the recipient, so the personal part of the questionnaire consisted of information about the respondent – age and country of residence. The main part consisted of questions for the recipient. The online survey questions required the respondent to provide specific, detailed answers. The main part of the questionnaire included the following questions:

1. Which social media platforms do you use most frequently for communication?
2. Provide specific examples from your social media related to the following categories:
 - Vocabulary (new words/phrases, changes in the meanings of traditional words)
 - Grammar (abbreviations/acronyms)
 - Syntax (simplification of syntactic reductions)

The content analysis method was used for structured research of the questionnaires, allowing us to trace language changes and the impact of AI on the syntax and vocabulary of English and Kazakh. The comparative analysis method was used to compare the features of language changes in the languages and identify their characteristics. Statistical processing of the survey results allowed assessing the prevalence of phenomena related to the use of AI in the digital language environment.

The obtained data were interpreted through the lens of technological innovations' impact on natural language, considering the cultural features of Kazakhstan and the USA. The analysis of the results included identifying key trends in language changes, assessing the impact of AI on the structural aspects of language, and determining possible consequences for language dynamics in the digital space.

4. RESULTS

AI has come a long way from its early concepts to its widespread presence in the modern world, especially on social media. The first AI research and experiments took place in the 1950s-1970s with foundational theoretical and program-based work. The 2000s were characterized by increased computational power and the availability of large datasets (Big Data). Specifically, the emergence of the first AI assistants Siri and Google Assistant. The widespread use of AI in social networks, particularly for content personalization, targeted advertising, and moderation, began in the early 21st century (Alaskar 2025; Sambetbayeva et al. 2025). For example, Facebook and Instagram use AI algorithms to recommend posts, YouTube personalizes video feeds based on user behaviour, and X implements automated moderation tools to detect harmful content.

There is a big difference between task-oriented chatbots, designed to perform specific functions such as customer support or virtual assistance (e.g., Amazon Alexa, Google Assistant), and no-task-oriented chatbots, such as ChatGPT, which are capable of generating text

and engaging in general conversation without a predefined task (Dall'Acqua, Bellentani 2023). Moreover, text-to-image AI systems, such as DALL-E (now integrated with ChatGPT) and Midjourney, are specialized chatbots whose sole task is to generate images from textual prompts. These examples illustrate the diversity of AI applications in interactive systems, ranging from service automation to creative content generation, and highlight the increasing accessibility of such technologies to the general public.

AI is transforming traditional approaches to studying language, opening up new horizons for linguistic research. The integration of AI into linguistics enables the automation of many routine tasks, such as analysing large volumes of textual data and identifying patterns previously inaccessible to human analysis (Barlybayev et al. 2024; Barlybayev, Turginbayeva 2025). One of the types of synthetic intelligence (SI) is NLP – the most common area of AI application in linguistics. NLP includes a wide range of tasks, including speech recognition: converting sound signals into text, which is used in voice assistants (Siri, Alexa), automatic translation systems, and speech recognition on dictaphones; text generation: creating texts based on given parameters (writing news, creating poetry, or even writing code), with GPT-3 models demonstrating impressive results in generating text that imitates human style; machine translation: automatic translation of texts from one language to another. Modern machine translation systems, like Google Translate, have achieved high-quality translation; sentiment analysis, used in marketing research to analyse customer feedback and monitor social media; information extraction: automatically retrieving needed information from large volumes of text, applied in information search, analysing scientific papers, etc.

Another type of AI is machine learning, a subfield of AI that enables computers to learn from data without explicit programming. In linguistics, machine learning is used for text classification, clustering, and detecting dependencies. AI allows for the automation of many tasks in computational linguistics, such as morphological analysis, syntactic analysis, and semantic analysis (Skliarenko et al. 2019; Gospodinova, Torlakov 2023). Typical examples of AI applications in linguistics include writers, chatbots, intelligent search, and automatic text summarization.

AI has become deeply integrated into social media platforms, transforming how content is created, recommended, moderated, and monetized. A key aspect of this integration is content personalization, implemented through complex machine learning algorithms. AI algorithms analyse large volumes of user data, including preferences, interests, and activity history, to generate personalized recommendations (Romaniuk, Yavorska 2022; Gospodinova, Nenov 2024). For instance, Meta employs AI-driven personalization across multiple platforms, including Facebook's news feed and Instagram's "Explore" section (Meta 2024a, 2024b), while Google

and TikTok apply similar approaches through YouTube recommendations and the "For You" feed, respectively (Google 2024; TikTok 2024).

In addition to personalization, AI performs content moderation, automatically detecting and removing unwanted materials such as spam, fake news, and extremist content. Targeted advertising relies on AI algorithms to show ads to users who meet specific criteria (e.g., age, gender, geolocation, interests). AI-powered chatbots and virtual assistants enhance customer service and optimize user interactions (Gupta et al. 2023; Kolosiuk, Zinovatna 2024; Mohamed et al. 2024). The analysis of multimedia content enables object detection, face recognition, and speech translation, expanding opportunities for interactive content creation (Hakimi et al. 2024; Tomassi et al. 2024). AI content generation automates the creation of textual, visual, and video materials, useful for short videos, memes, and advertisements (Mohamed et al. 2024; Zou et al. 2023). Overall, AI contributes to enhanced personalization, efficiency, and interactivity on social media, while also raising ethical considerations regarding data privacy and algorithmic bias (Hajli et al. 2021; Hohenstein et al. 2021).

The rapid development of digital technologies and social media has contributed to new words and expressions that reflect changes in communication methods. In this context, creating neologisms occurs in several ways: borrowing words from the technological sphere, forming new phrases, adapting Anglicisms, and creating abbreviations. Depending on the method of borrowing, this process takes different forms in Kazakh, but overall trends remain similar. One of the primary sources of new vocabulary is English-language terminology related to social media, gaming, and mobile technologies. The most illustrative examples of such borrowings, systematized according to their semantic domains, are presented in Table 1.

The Table 1. illustrates that English borrowings in Kazakh social media discourse are thematically organized and predominantly focused on digital communication, gaming culture, and mobile technology, indicating the sectors of greatest technical impact.

In Kazakh, both direct borrowings and adapted variations are often used. For instance, the word "blogger" (from Eng. blogger) – a person who runs a blog, an influential internet user – has already become an integral part of digital vocabulary, while the term "chatbot" (from chatbot) exists in both its original form and a simplified version. Similarly, "fleshmob" refers to a mass action organized via the internet. In English, new words are usually formed by combining already familiar elements, such as "doomscrolling" (endlessly scrolling through negative news) or "influencer" (a person who shapes audience opinion on social media). Likewise, new phrases and expressions often emerge in response to changes in user behaviour. For example, the term "fake news" became popular due to the spread of misinformation on social networks. A similar trend is observed in Kazakh, where

Table 1. English borrowings in Kazakh social media discourse by semantic domain

Sphere of borrowing	Borrowed word (Eng.)	Meaning	Example in Kazakh	Translation
Social media / everyday communication	kaif	pleasure, enjoyment	Bugin kinoga bardym, qatty kaif aldym!	Today I went to the cinema, I had a lot of fun!
	chat	online communication	Men dostarymnen chatta otyramyn	I am chatting with my friends
	post	blog or social media post	Ol o'zinin' paraqshasynda zhan'a post zhazdy	He wrote a new post on his page
	laik	"like" mark under a post	Osy suretke laik bas	Mark "like" under this picture
	haip	hype around a topic	–	–
Gaming industry	level ap (level up)	progressing to a new level in a game	Men ойында level ap zhasadym	I levelled up in the game
	kvest	quest in computer games	Men bugin qiyn kvestti o'ttim	I completed a difficult quest today
	gaid	guide, instruction	Men osy ойыng'a gaid taptym	I found a guide for this game
Mobile technology	smartfon	smartphone	Menin' zhan'a smartfonym bar	I have a new smartphone
	gadzhет	Gadget	Onyn' ko'ptegen gadzhetteri bar	He has a lot of gadgets

Source: compiled by the authors.

"zhalg'an zhanalyq" (literally "fake news") is used. Such terms reflect the need to describe new digital phenomena and quickly become part of everyday vocabulary.

Another important aspect of new vocabulary formation is the change in meanings of traditional words. Many words in social media have acquired additional or completely new meanings. For instance, the English word "viral" previously referred to medical contexts but now means "popular online"; "post" has expanded beyond its traditional meaning of "mail" to signify a social media publication; "friend" is not only a personal acquaintance but also a social media contact; and "share" now refers to content distribution in digital spaces. Similar shifts occur in Kazakh, where "trend" (borrowed from English) applies not only to fashion but also to popular topics on social media; "dos" (friend) is used both in the traditional sense and for online friends; "zhazyp zhibery" (to write and send) frequently means "to publish a post"; "taratu" (to distribute) is used for content sharing. English terms such as "like", "likeable" (pleasant), "like-minded", "troll", and "meme" also follow this trend.

The development of social media and digital technologies has influenced not only vocabulary but also the grammatical and syntactic characteristics of languages. Online communication is characterised by message shortening, leading to extensive use of abbreviations, emojis, and simplified syntactic structures. English and Kazakh have both undergone certain changes under these influences, evident in informal conversations, comments, and texts on social media. Social networks also popularise expressions with short life cycles, though some become entrenched in the language. Abbreviations

can be phonetic (e.g., "kz" instead of "qysqasha"), graphical (e.g., "&" instead of "zha'ne"), or acronyms (e.g., "LOL" for "laugh out loud"). English abbreviations such as "FOMO" ("fear of missing out"), "clout chasing" ("pursuit of popularity"), "LOL" ("laugh out loud"), "BRB" ("be right back"), "OMG" ("oh my God"), and "DM" ("direct message") have counterparts in Kazakh, though they are less widespread. For example, "ZhZh" ("zheke habarlama" – private message) mirrors "DM"; "KK" ("kaif qaida" – where is the fun?) serves a similar function. Such abbreviations save time and space, especially on platforms with text limitations like Instagram, TikTok, and WhatsApp. Related contractions include "bu'g" ("bu'gin" – today), "sa'lem" ("sa'lemetsyz be" – good day), and "keremet" ("wonderful").

Another significant factor is the active use of emojis, which substantially impact sentence construction and emotional expression. In many cases, emojis replace words or even entire phrases. For instance, in the message "I'm so happy," the word "happy" is reinforced by a positive emoji. In Kazakh, emojis can replace words like "rahmet" (thank you). This trend may reduce word count in texts, as meaning is conveyed visually. Emojis often substitute punctuation marks and enrich emotional nuances. Their interpretation is largely independent of language, as they universally signify agreement, dissatisfaction, laughter, or surprise.

Grammar in social media messages is also evolving due to abbreviations and emojis. Users frequently disregard punctuation and grammar rules for speed and informality. For example, in English, "What are you doing?" is often shortened to "WYD?". Similarly, in Kazakh, "Ne

istep zhatsyn'?" (What are you doing?) is often written as "Neistep zhatsyn?", demonstrating a general trend towards linguistic simplification in digital spaces. Another noticeable trend is the simplification of syntactic constructions. On social media, users avoid complex subordinate clauses, preferring short and clear expressions (Romaniuk 2021). For example, instead of "I think this is a great idea because it allows people to communicate more easily", they often write "Great idea! Helps people talk easier". A similar simplification occurs in the Kazakh language; for instance, instead of "Bul o'te qyzyqy, sebebi ol adamdarg'a aqparatty on'ai aly'g'a mu'mkindik beredi" (This is very interesting because it allows people to easily obtain information), users often write simply "Qyzyqy! Aqparat aly' on'ai!" ("Interesting! Receiving information is easy!"). Additionally, syntactic simplification is reflected in the absence of formal address forms and the shortening of greeting constructions. In English, the traditional "Hello, how are you?" is replaced by a simple "Hey" or "Sup?". In Kazakh, instead of "Sa'lemetsyz be" (Good day), people often use the informal "Sa'lem" or even just "Sa'ke". This demonstrates a trend towards informality and rapid information exchange.

Factors influencing the formation of new vocabulary include the speed of information dissemination (which promotes the rapid creation of new words and expressions), the youth environment (as young people are the primary users of social networks and actively shape new language forms), globalization (which contributes to the spread of English words and expressions into other languages), and marketing and advertising (as companies use social networks to promote their products and services, leading to the emergence of new words and phrases).

AI facilitates the rapid dissemination of new words and expressions, changes in the meanings of existing words, and the formation of cultural codes through social media (Kalenychenko et al. 2025). Studying these processes helps to better understand linguistic trends and adapt to them. Changes in grammar and syntax caused by social networks have both positive and negative consequences. On the one hand, they contribute to fast and efficient communication and the adaptation of speech to the digital environment. On the other hand, excessive use of abbreviations and simplified constructions can affect overall literacy levels, especially among young people. Additionally, the existence of such words creates obstacles for high-quality AI translation. Nevertheless, these changes represent the natural evolution of languages in the digital age and reflect new ways of communication characteristic of modern society. Table 2 presents several words that have emerged as a result of globalization and have become ingrained in the Kazakh language. The slang expressions were collected based on an analysis of survey responses from respondents in the Republic of Kazakhstan. Specifically, examples of expressions commonly used by young people on social networks are provided.

Table 2, a table of slang expressions, has become a valuable tool for studying youth culture and language. The analysis of respondents' questionnaires confirmed the active use of social media by young people as the main source of new linguistic forms. The collected examples of slang expressions from the questionnaires (Table 2) clearly demonstrate the influence of AI and digital technologies on the formation of new vocabulary. While globalization facilitates lexical borrowing in general, artificial intelligence contributes specifically through algorithm-driven content distribution, automated translation, recommendation systems, chatbots, and AI-mediated communication platforms, which accelerate the spread, normalization, and frequency of English-derived lexical items in everyday online interaction. In this context, AI, social media algorithms, and digital infrastructures do not merely transmit new words but actively shape communicative practices by prioritizing certain content, promoting trends, and standardizing terminology across platforms, thereby influencing the formation and consolidation of new vocabulary in the Kazakh language. They contribute to the emergence of new words and phrases, change the meanings of traditional terms, and stimulate the development of slang and abbreviations. While some new words may disappear quickly, many of them become embedded in the language, reflecting changes in communication and information perception in the digital age, thereby opening new opportunities for the development of the Kazakh language. Thanks to AI models (NLP), the Kazakh language may become more accessible for learning and use in various fields of life. However, to achieve maximum effectiveness, one of the global challenges related to data quality and ethical aspects of AI usage must be addressed.

The development of information technology (IT) has significantly influenced the Kazakh language, particularly its vocabulary (Alkebaeva et al. 2021). The analysis of survey results among young people (Table 3) helped identify the active use of IT terminology in their daily communication on social media. Since most new terms in the field of digital technology originate from the English language, Kazakh, like many other languages, is forced to either adapt them or create its own equivalents. Borrowings can remain in their original form, be phonologically or morphologically adapted, or receive an appropriate translation.

The analysis of the respondents' questionnaires enabled the identification of the following types of IT borrowings: direct, adapted, full translations/analogues, and hybrid borrowings. The data in Table 3 demonstrate that the Kazakh language is successfully adapting to new technological realities by employing various borrowing strategies. This allows it to maintain its identity while simultaneously integrating into the global information space.

Despite the active borrowing of IT terminology, there are certain challenges related to AI applications, including bilingualism – many Kazakh users simultaneously use Kazakh and Russian, leading to some terms being

Table 2. Table of Kazakh slang expressions in social networks

Word	Meaning	Origin	Example in the sentence
Аватар	A graphical representation of a user in social networks	Avatar (Eng.)	Menin' avatarym o'te zharqyn My avatar is very bright
Аноним	A user who has not provided personal data	Anonyme (Fr.)	Anonymous teris pikir qaldyrdy Anonymous left a negative comment
Анбоксинг	Unpacking a product on camera	Unboxing (Eng.)	YouTube saitymda menin' zhan'a qoraptan shyg'yymdy qoraptan ko'rin'iz Watch my new unboxing on YouTube
Ауф	Expression of surprise	Slang	Y'ay', qandai tamasha fil'm! Wow, what a great movie!
Баг	An error in a program, a malfunction	Bug (Eng.)	Bul oiynda ko'ptegen qatellkter bar There are many bugs in this game
Байт	A lure, provocation	Bait (Eng.)	Onyn' u'ine barma Don't go to his house
Бумер	An older person who does not understand modern youth	Boomer (Eng.)	Menin' atam nag'yz bumerlik adam My grandfather is a true boomer
Вайб	Atmosphere, mood	Vibe (Eng.)	Bul kafede o'te zhaqsy ko'n'il-ku'i bar This cafe has a very good atmosphere
Донат	Voluntary contribution, donation	Donate (Eng.)	Men su'iikti agynyma qaiyrymdylyq zhasadym I donated to my favourite stream
Камон	Let's go, come on	Come on (Eng.)	Zhu'r, ony su'iretpe, endi kell! Come on, don't drag it, come now!
Краш	A person one has a crush on	Crush (Eng.)	Men bul akterge qatty g'ashyqpyn I have a crush on this actor
Кринж	An embarrassing situation causing discomfort	Cringe (Eng.)	Ol bul a'zil-qalzhindy aitqanda, ba'ri dirildep qaldy When he tells this joke, everyone is cringe
Лол	Laugh out loud – very funny	LOL (Eng.)	Lol, qandai tamasha a'zil! Lol, what a great joke!
Мерч	Branded products	Merchandise (Eng.)	Men su'ikti tobymnyn' zhan'a tauaryn satyp aldym I bought new merchandise for my favourite band
Муд	Mood	Mood (Eng.)	Bu'gin menin' ko'n'il-ku'im o'te nashar I'm in a very bad mood today
Манспрединг	A posture where a man sits with legs wide apart, taking up more space than needed	Manspreading (Eng.)	Massannyn' kesirinen metro o'te yn'g'aisyz. The subway is very uncomfortable because of the manspreading
Олды	Older people nostalgic about the past	Old (Eng.)	Qarttar TikToks ne ekenin nu'sinbeidi Old people don't understand what TikToks are
Рандом	Random, a random choice	Random (Eng.)	Kezdeisoq zherde kafe tan'daiyq Let's choose a cafe at random
Рофл	Rolling on the floor laughing – hysterical laughter	ROFL (Eng.)	Bul mem zhai gan'a rofl! This meme is just rofl!
Солд аут	Sold out	Sold out (Eng.)	Kontsert biletteri satylyp bitti Concert tickets are sold out
Соулмейт	A soulmate, an ideal partner	Soulmate (Eng.)	Men o'zumnin' zhan serigimdi izdeimin I am looking for my soulmate
Стрим жасау	Live video game streaming	Stream (Eng.)	Ol Twitch arqyly ju'n saiyn transkyatsiya zhasaidy He streams daily on Twitch

Artificial intelligence in social media and its impact on language

Word	Meaning	Origin	Example in the sentence
Токсик	Harmful, negatively affecting others	Toxic (Eng.)	Ol sonshalyqty uly, odan aulaq bolg'an durys It is so poisonous that it is best to avoid it
Тройбл	Problem, difficulty	Trouble (Eng.)	Matematikadan qatty qinalyp zhu'rmin I have trouble with math
Факап	Failure, mistake	Fuck up (Eng., vulgar)	Men bul zhobany shynymen buzdym I really fucked up this project
Фанфик	A creative work written by a fan based on an existing story	Fan fiction (Eng.)	Men Garri Potter turaly keremet fanfik oqydym I read a great fan fiction about Harry Potter
Фейк	Fake, forgery	Fake (Eng.)	Bul foto zhalg'an This photo is fake
Фейспалм	A gesture expressing embarrassment or disappointment	Face palm (Eng.)	Men onun' so'zderinen zhai g'ana betimdi ustadym I just held my face at his words
Флуд	Meaningless messages	Flood (Eng.)	Chatty tolyrydy toqtatyn'yz! Stop flooding the chat!
Фоллоу жасау	Subscribing to someone on social networks	Follow (Eng.)	Endeshe bir-birimizben birge zhu'reiik So let's walk together
Форсить	Insisting, pushing an idea	Force (Eng.)	Vin u'nemi o'zinin' zhan'a teoriyasyn alga tartady Vin is constantly forcing his new theory
Хайп жасау	Creating hype, promoting	Hype (Eng.)	Bloger zhan'a zhanzhaldy zhan'alyq boiynsha haip ty'dyrdy The blogger created a hype around the new scandalous news
Читер	Someone who cheats in a game	Cheat (Eng.)	Og'an alayaqtyq zhasagany u'shin tyiym salyndy He was banned for cheating
Шеймить	To shame, humiliate	Shame (Eng.)	Adandardy qatelikteri y'shin uyatqa qaldyrudyn' qazheti zhoq There's no need to shame people for their mistakes
Шипперить	To fantasize about a couple, wishing for their relationship	Fandom term	Men bul zhupty seriyany'n' basynan beri zhiberip kelem I've been rooting for this couple since the beginning of the series
Тьюториал	A training video, manual	Tutorial (Eng.)	YouTube saityndag'y oqylyqty qaran'yz, onda ba'ri egzhei-tegzheili tu'sindiriledi Watch the tutorial on YouTube, where everything is explained in detail
Юзать	To use	Use (Eng.)	Men bul gadzhetti ku'nde qoldanamyn I use this gadget every day

Note: Kazakh is written in several scripts: Cyrillic (official in Kazakhstan), Latin (widely used in digital communication and currently subject to an official transition policy), and Perso-Arabic script (used by Kazakh communities abroad, particularly in China). In this table, Cyrillic is used for standard lexical items, while Latin transliteration is employed in example sentences to reflect actual social media usage. The variation in scripts reflects contemporary sociolinguistic and technological practices.

Source: compiled by the authors based on examples provided in the questionnaires.

Table 3. Adaptation of IT terminology in the Kazakh language

Type of borrowing	Characteristics	Examples
Direct borrowings	Use of IT terms in their original form or with minor phonetic adaptations	"kompyuter" (computer), "internet" (internet), "sait" (site), "skaner" (scanner), "printer" (printer), "chat" (chat) – these words have become so integrated into everyday life that many native speakers no longer perceive them as foreign
Adapted borrowings	Words undergo certain changes in accordance with the phonetic and morphological norms of the Kazakh language	"protessor" (processor) → "protessor" (preserving the English form but adapting pronunciation); "programma" (program) → "bag'darlama" (an adapted term also used in official documents)
Full translations and native equivalents	Creation of Kazakh equivalents to replace foreign words, preserving linguistic identity	social network → "a'leumettik zheli", email → "elektrondy poshta", mobile app → "uyaly qosumsha", browser → "sholg'ysh", operating system → "operatsiyalyq zu'hie"
Hybrid borrowings	Partial borrowing of terms with the addition of Kazakh elements for better integration	"onlain oqu" (online learning) → "onlain" (borrowed word) + "oqu" (Kazakh word for "learning"); "tsifrllyq marketing" (digital marketing) → "tsifrllyq" (digital) + "marketing" (borrowed word); "aqyldy qurylg'y" (smart device) → "aqyldy" (smart) + "qurylg'y" (device). Such mixed forms help new concepts be more easily accepted by native speakers

Source: compiled by the authors.

more firmly established in Russian (e.g., "poisk" instead of "izdeu", "obnovlenie" instead of "zhan'artu"); adaptation difficulties – some new terms are difficult to translate without losing their original meaning, forcing the use of calques or retaining them in their English form; promotion of native terminology – Government initiatives aim to expand the use of Kazakh IT terminology, but English-language terms still dominate among the younger generation.

The Kazakh language actively borrows IT terms from English while striving to preserve its identity through translation and adaptation of new words. In the future, the trend toward preserving national terminology is likely to grow, particularly with the development of state programs supporting the Kazakh language in the digital space. The impact of social media on language varies across cultures, as digital communication is shaped by national traditions, linguistic norms, and social values. In the case of English and Kazakh, both common trends and significant differences can be observed in how social media transforms their linguistic landscapes. One of the main distinctions is the level of globalization of English compared to Kazakh. English is an international language of communication, where many neologisms, abbreviations, and stylistic features originate. It is the primary language of social media, enabling new trends and lexical innovations to spread rapidly worldwide. The Kazakh language, on the other hand, remains relatively localized and is less widespread in the international online space, affecting the pace of its digital transformation.

English-language communication in social media is generally more informal than in Kazakh culture. In English-speaking countries (e.g., the USA, the UK, Canada), slang, humour, irony, and memes are widely used. For instance, phrases like "Okay, boomer" (a sarcastic

response to outdated views of older generations), "Yeet" (to throw something forcefully), "FOMO" (fear of missing out), and "cringe" (something awkward or embarrassing) are popular among young people online. In Kazakh culture, which traditionally maintains a more respectful approach to elders and formal speech, such expressions are less common, and online communication often remains more polite and formal, particularly when interacting with older generations. For example, when addressing strangers, users frequently employ respectful forms like "Ag'ai" and "Ta'te", meaning "uncle" or "aunt" (used as a polite address, even for non-relatives). However, the Kazakh language demonstrates a tendency to adapt borrowings in accordance with its linguistic norms. For example, English terms like "streamer" (a person who broadcasts live) may have alternative forms in Kazakh, adapted to its phonetic and morphological rules, such as "strimer" or "translyatsiya zhu'rgizy'shi". This reflects the policy of preserving national linguistic identity and the effort to minimize the influence of foreign words.

English serves as the main source of new digital terms, with most neologisms emerging in English-speaking environments. The Kazakh language, like many others, actively borrows these words while trying to adapt them to its own linguistic framework. For instance, the English word "blogger" in Kazakh has several forms: it can be used in its original form (blogger) or as a calque "ku'ndelikti zhu'rgizy'shi" (one who keeps a diary). A similar situation applies to the term "streamer", which can either be retained in English or translated as "tikelei efir zhu'rgizy'shi" (live broadcast host). English-language slang on social media often evolves through abbreviations or shifts in meaning. For instance, "tea" means gossip ("spill the tea" – share the gossip), and "simp" refers to someone overly eager to please another. In

the Kazakh language, similar processes occur, albeit at a slower pace. Young people on social media use slang abbreviations such as “krash” (a person one likes, from the English crush) or “qzn” (qyz – girl). Mixed constructions combining Kazakh and Russian are also common, for example, “Ne istep zhatsyn?” (What are you doing?) is often shortened to “nestep?”.

Social media also reveals differences in the use of emotional expressions and emojis. In English-speaking contexts, emotions are conveyed through short slang expressions (LOL, OMG), whereas in the Kazakh segment, traditional expressions of gratitude and politeness are more frequently used, such as “rahmet” (thank you) or “alg’ys” (gratitude). This indicates the preservation of cultural characteristics even in the digital space. However, emoji meanings are not always universal. For example, in the US, the upside-down smiley face may indicate sarcasm or disappointment, whereas in the Kazakh digital space, the mountain emoji symbolizes Kazakhstan’s natural landscapes.

Regarding syntactic changes, English, due to its analytic nature, adapts more quickly to shorter and simpler constructions. For example, abbreviated sentences lacking a subject or verb (“Going out. Be back soon”) have become commonplace in social media. The Kazakh language, being agglutinative with complex morphology, experiences slower syntactic simplification, though shortened constructions are also becoming widespread, particularly among young people (“Kelemin” → “Kelem” – I will come → Will come). Kazakhstan exhibits a tendency to preserve linguistic purity and minimize foreign borrowings. The state promotes the use of Kazakh online, with initiatives such as the State Program “Rukhani Zhangyru” (2017) aimed at creating Kazakh equivalents for foreign terms.

The survey conducted among young people in Kazakhstan and the US was a key tool for data collection, forming the basis of the comparative analysis. Respondents provided examples of neologisms, abbreviations, and changes in word meanings, illustrating AI’s influence on linguistic trends. Table 4 presents a comparative analysis of AI’s impact on English and Kazakh in social media based on the following criteria: the spread of neologisms, changes in word meanings, use of abbreviations and contractions, impact of emojis, changes in grammar and syntax, AI’s role in linguistic trends, and cultural characteristics.

The analysis of the information presented in Table 4 helped identify both common and distinct features of social media algorithms’ impact on the English and Kazakh languages. Among the common features, active creation of new vocabulary was noted through the spread of neologisms, changes in word meanings, and the use of abbreviations. The impact of emojis (which have become a universal means of expressing emotions) was also observed, as well as language simplification, with AI contributing to the simplification of grammar and syntax. A distinct feature is the pace at which language trends spread – English, as a global language, adapts

more quickly to new trends, while Kazakh demonstrates a tendency to preserve national identity. Furthermore, English-language communication is characterized by greater informality, whereas Kazakh communication retains elements of respect. The Kazakh language actively adapts English terms, reflecting the process of integration into the global information space. Thus, platform-specific algorithms on Facebook, Instagram, TikTok, and WhatsApp influence the English and Kazakh languages differently. The English language undergoes rapid changes due to globalization and the flexibility of its syntax, while the Kazakh language is in the process of adaptation, preserving cultural features and national linguistic traditions. Although both languages are becoming more informal and interactive in the digital space, they still reflect the unique characteristics of their cultures, allowing for the preservation of national linguistic identity even in the era of globalization. The impact of social media on language depends not only on technological development but also on the cultural traits of each nation. Although both English and Kazakh undergo similar changes due to digital platforms, they reflect the linguistic norms of their speakers. This applies to both lexical innovations and communication styles.

While social media algorithms actively shape the evolution of English and Kazakh, facilitating the rapid spread of neologisms, abbreviations, and simplified syntax, AI also poses challenges for linguistic security. Beyond influencing language trends, technologies such as deepfake audio and text can manipulate communication, spread disinformation, and produce content that is almost indistinguishable from authentic speech or writing. For example, AI-generated voice assistants (Google Assistant, Siri, Alexa) and document-analysis tools (e.g., Adobe’s AI-powered assistant for PDFs) demonstrate both the utility and the risks of automated language processing. These technologies, while enabling efficient communication and content creation, also make it possible to generate misleading or harmful texts that can affect public opinion.

To mitigate these risks, a multifaceted approach is necessary, combining algorithmic detection of deepfakes, blockchain-based verification of content authenticity, legislative regulation (Declaration for the Future of Internet, 2022; Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), 1995), and increased media literacy. Understanding these dual roles of AI – both as a driver of language evolution and a potential source of linguistic manipulation – provides a more comprehensive view of its impact on the Kazakh language in digital environments, informing further research in digital linguistics and responsible AI deployment.

5. DISCUSSION

The results of the study demonstrated that digital technologies implemented in social media have influenced the transformation of the Kazakh language, including changes in speech structure, the emergence of new

Table 4. Comparative analysis of AI’s impact on English and Kazakh in social media

Aspect	English language	Kazakh language
Spread of neologisms	Active creation and dissemination of neologisms, especially in technology (e.g., doomscrolling, influencer, fake news, social network, email, mobile app, browser, operating system)	Active borrowing of English IT terms, adaptation, and translation (e.g., “blogger”, “chatbot”, “fleshmob”, “a’leumettik zheli”, “elektrondy poshta”, “uyaly qosumsha”, “sholg’ysh”, “operatsiyalyq zu’hie”)
Change in word meanings	Traditional words acquire new digital meanings (e.g., viral – popular online, post – publication, friend – contact, share – distribute)	Traditional words change meaning under digital influence (e.g., “trend” – popular topics, “dos” – online friend, “zhazyp zhibery” – publish a post, “taratu” – share content)
Use of abbreviations	Widespread use of abbreviations in informal communication (e.g., FOMO, LOL, BRB, OMG)	Less common than in English, but still used (e.g., “ZhZh – zheke habarlama”, “KK – kaif qaida”, “bug – bu’gin”, “sa’lem – salamatsyz ba”)
Impact of emojis	Used to express emotions, replace words, and add nuance	Used similarly for emotional expression and nuance
Grammar and syntax changes	Simplified syntax, short sentences, lack of punctuation – “WYD?”, “u good?”, “great idea! Helps people talk easier”	Gradual simplification of syntax – “Nestep zhatsyn’?”, “Qyzyqty! Aqqarat alu on’ail”, “Sa’lem”, “Sa’ke”
The impact of AI on the spread of language trends	Rapid spread of language trends due to globalisation and widespread use of English – “Okay”, “boomer”, “Yeet”, “FOMO”, “cringe”	Slower spread of language trends, but active adaptation and translation of English terms - adaptation “streamer” as “strimer” or “translyatsiya zhu’rgizy’shi”, using “krash”, “qzn”
Cultural peculiarities	Informal communication, extensive use of slang, humour, irony – “Okay, boomer”, “tea”, “simp”	More respectful and formal communication: polite addressing (“Ag’ai”, “Ta’te”), traditional expressions of gratitude (“rahmet”, “alg’ys”)

Source: compiled by the authors.

lexical units, and the adaptation of borrowed words to online communication norms. Importantly, much of the observed influence predates the widespread use of generative AI (from 2022 onward) and can be attributed to platform-specific algorithms that shape content visibility, promote certain expressions, and encourage linguistic simplification. These include recommendation systems, text-simplification features, and automated translation tools used by platforms such as Facebook, Instagram, TikTok, and WhatsApp.

According to research by Alkebaeva et al. (2021), globalisation and the expansion of the Internet contribute to the adoption of foreign words, mixed-language posts, new abbreviations, and slang in Kazakh online discourse. Similarly, Nabdullin and Ordabaev (2021) found that increased information flows, international tourism, and cultural exchanges have accelerated the borrowing of English terms, calques, and new lexical items. In this context, while traditional algorithmic features of social media have long guided linguistic adaptation, the introduction of generative AI tools (chatbots, neural machine translation, text-generation assistants) adds a new layer of influence, enabling content creation, simplification, and paraphrasing on a scale not previously possible.

Thus, the study’s results highlight a dual mechanism: prior to 2022, social media algorithms influenced Kazakh online language indirectly through content curation and simplification, while recent generative AI technologies

enhance these effects by directly generating language content, potentially accelerating lexical innovation and adaptation processes.

Another result of the study was the finding that automatic translation systems do not always correctly convey grammatical features, which can affect how the language is perceived by its speakers. This conclusion is derived from instances gathered via questionnaires and social media posts, when respondents indicated mistranslations or noted strange wording in Kazakh material produced by machine translation technologies. Calqued expressions or literal translations of English phrases frequently produced syntactically problematic or semantically unclear sentences, underscoring the limitations of contemporary AI-based translation systems. Automatic translators sometimes make mistakes due to the complexity of natural languages and contextual dependence. Research by Liu et al. (2023) proved that machine translators are not reliable and can produce incorrect translations, which can potentially lead to misunderstandings, highlighting the importance of identifying errors in machine translators and providing developers with informative feedback. According to the study by André (2023), computer code translation and natural language translation face parallel challenges, emphasizing the need to study the complexity and new properties in both fields. Therefore, the findings of these studies align with the thesis that, despite significant progress,

automatic translation still has limitations related to the complexity of natural languages and contextual nuances. Machine translation is thus an extremely complex task that requires a comprehensive approach, the improvement of models that take context into account, the use of neural networks for more accurate modelling of linguistic processes, the involvement of linguists to develop better data corpora for training machine translation models, and so on.

During the research between 2023 and 2024, it was proven that the application of AI in social networks faces challenges such as ethical issues, algorithmic biases, privacy concerns, security, as well as difficulties in processing large volumes of data. According to the study by Hakimi et al. (2024), AI can enhance social media security, including automated content moderation and real-time response mechanisms, but ethical issues such as algorithmic bias and privacy concerns require continuous research and collaboration to minimize potential risks. A similar position is also highlighted in the study by Niveditha (2023): AI algorithms in social networks can improve user interaction, but they can also contribute to the spread of misinformation and privacy issues. Milan et al. (2023) noted that AI chatbots can be used for customer support and social engagement, while AI-generated content can be tailored to a specific audience to create and detail content on social media. However, relying solely on AI for social media functions may not be advisable, as there are concerns about security, privacy, and simplicity. Thus, the findings of these studies align on the fact that the application of AI in social networks has both positive (improving user interaction) and negative (algorithmic bias, misinformation spread, etc.) consequences.

6. CONCLUSIONS

In this study, the features of the impact of computational linguistics on the use of Kazakh and English languages in the digital environment, particularly on social networks, were identified. The primary focus was on analysing AI tools such as NLP and machine learning. It was proven that AI significantly simplifies the processing of large volumes of textual data, and specialized algorithms are effectively applied for automatic translation and text generation on social networks.

The research focused on the functioning of AI in social networks. To obtain empirical data, an online survey was conducted among 200 users of these platforms, residents of the Republic of Kazakhstan and the USA. This allowed the identification of the features of AI's impact on the Kazakh-speaking and English-speaking social media environment in different cultures. The survey confirmed the active use of social networks by young people as the primary source of new language forms. The collected examples of slang expressions from the survey allowed for a clear demonstration of the impact of AI and digital technologies on the formation of new vocabulary. Processing the responses of English-speaking respondents helped to explore global trends concerning AI's impact on

the Kazakh language. Based on the obtained data, key aspects of language changes were identified: the formation of new vocabulary (the emergence of neologisms, changes in word meanings, development of slang), and transformations in grammar and syntax (abbreviations, the use of acronyms, the influence of emojis on sentence structure, simplification of syntactic constructions). It was proven that AI personalizes content, adapting it to the needs of users. At the same time, to maximize its potential, it is necessary to improve machine translation algorithms, enhance data quality, and maintain linguistic authenticity. It was also determined that the most significant borrowings in the Kazakh language come from English, particularly in the IT sector.

Particular attention was paid to a comparative analysis of the impact of social networks on language in Kazakh and English cultures. It was determined that content automation through AI changes the linguistic landscape of social networks by simplifying syntax, spreading a neutral style, promoting the emergence of new words and expressions, and standardizing digital communication. AI creates an adaptive linguistic environment that responds to the dynamic conditions of the modern digital space. The research also revealed that the rapid development of AI not only opens new opportunities but also creates significant risks for language security. Specifically, the influence of AI on language security was considered. It was determined that deepfake audio and text technologies can be used for manipulation and disinformation, undermining trust in information sources, etc. To effectively counter these threats, a comprehensive approach was proposed, which included technological solutions, legislative initiatives, and enhanced media literacy.

The research process was complicated by insufficiently studied AI algorithms and the limited number of scientific studies dedicated to this topic in academic discourse. Moreover, the analysis was based on a survey of users from only four social networks, which limited the generalizability of the conclusions to other platforms. For further research, promising directions may include: a deeper analysis of AI's impact on the grammar and vocabulary of different languages, including the study of new grammatical constructions and slang expressions generated by AI. Another relevant research direction could be the impact of AI on intercultural communication and the formation of digital identity, studying ethical aspects of AI usage in language technologies, particularly issues related to discrimination, manipulation, and disinformation. Additionally, an interesting direction may be the study of human-AI interaction in the process of content creation and consumption.

To improve the results of the research, it would be worth exploring the sociolinguistic aspects of AI's impact, specifically studying the influence of AI on the formation and preservation of linguistic identity in digital space, and analysing AI's impact on the language behaviour of various social groups. Moreover, it is necessary to track semantic changes based on Kazakh and English languages. For instance, preliminary analysis indicates

that AI-driven content and recommendations contribute to the transformation of word meanings and the spread of emotionally coloured vocabulary.

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