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# CORRELATION OF THE ENVIRONMENTAL CONSCIOUSNESS OF KAZAKHSTANIS DUE TO THE PANDEMIC

The topic of the research is devoted to the study of changes in the environmental consciousness of Kazakhstanis in connection with the pandemic. The text of the study answers to such questions like how does the massive use of social networks in a pandemic affect the nature of the perception of information and the further reaction of users to events.

The aim of the study is to show how social networks are moving away from the role of a tool. And its conceptualization is already shown as an aggregator of public opinion in techno-cultural relations. Accordingly, this article examines the tendency of changing the environmental consciousness of Kazakh-stanis during a pandemic.

The scientific significance of the study lies in the topic itself, the importance and role of social networks in the formation of the main trends and themes were determined. Findings were done by studying the main platform for the dissemination of environmental ideas – the social network Instagram. The article used research methods such as interviews, as well as empirical research methods such as observation and comparison (in social networks). The research was helped by such qualities and advantages of Instagram as hashtags (#airpollution, #plasticpollution #ĸoбeйтy3), popular news that were in the rank of the most discussed and sent to other users. As part of the study, interviews were conducted with the owners of the recycling business.

The article discusses the hypothesis that during the pandemic, activity on social networks increased significantly, which led to an intensive discussion of environmental topics in Kazakhstan.

This work has an important research component and can be assessed by experts in the field of public opinion research, as well as this article can be a learning base for students and novice specialists.

Key words: ecology, youth, social networks, ecological consciousness, pandemic.

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# Пандемияға байланысты қазақстандықтардың экологиялық санасының корреляциясы

Зерттеу тақырыбы пандемияға байланысты қазақстандықтардың санасындағы экологиялық өзгерістерді зерттеуге арналған. Зерттеу мәтіні – пандемия жағдайында әлеуметтік желілерді жаппай қолдану, ақпаратты қабылдау сипатына және оқиғаларды қабылдауда қолданушылардың реакциясы қандай деген сұрақтарға жауап береді.

Зерттеудің мақсаты әлеуметтік желілердің құрал рөлінен алшақтап бара жатқанын көрсету. Және олардың концептуализациясы қазірдің өзінде техно-мәдени қатынастарда қоғамдық пікірдің агрегаторы ретінде көрсетілген. Сондай-ақ, бұл мақалада пандемия кезінде қазақстандықтардың экологиялық санасының өзгеру тенденциясы қарастырылады.

Зерттеудің ғылыми маңыздылығы тақырыптың өзінде көрсетілген. Зерттеу барысында негізгі тенденциялар мен тақырыптарды қалыптастырудағы әлеуметтік желілердің маңызы мен рөлі анықталды. Бұл экологиялық идеяларды таратудың негізгі платформасы – Instagram әлеуметтік желісін зерттеу арқылы жүзеге асты. Мақалада сұхбаттасу, зерттеу әдістері, бақылау және салыстыру сияқты эмпирикалық зерттеу әдістері қолданылды (әлеуметтік желілерде). Зерттеулерде инстаграмның хэштегтер (#airpollution, #plasticpollution #кобейтуз) сияқты қасиеттері мен артықшылықтары, ең көп талқыланған және басқа қолданушыларға жіберілген танымал жаңалықтар көмектесті. Зерттеу шеңберінде қайта өңдеу бизнесінің иелерімен сұхбаттар өткізілді, олардың практикалық тәжірибесі және өз компанияларының қызметтерін пайдаланушылардың мінез-құлқындағы негізгі өзгерістер туралы кәсіпкерлік көзқарастары қаралды. Пандемия кезінде азаматтардың мінез-құлқындағы өзгерістерге байланысты талдау жасалды. Мақалада пандемия кезінде әлеуметтік желілердегі белсенділік айтарлықтай өсті, бұл Қазақстандағы экологиялық тақырыптарды қарқынды талқылауға алып келді деген гипотеза талқыланады.

Бұл жұмыс маңызды зерттеу компонентіне ие және оны қоғамдық пікірді зерттеу саласындағы сарапшылар бағалауы мүмкін, сонымен қатар, студенттер мен жас мамандар үшін оқу базасы бола алады.

Түйін сөздер: экология, жастар, әлеуметтік желілер, экологиялық сана, пандемия.

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#### Корреляция экологического сознания казахстанцев в связи с пандемией

Статья посвящена изучению трансформации экологического сознания казахстанцев в связи с пандемией. Текст исследования отвечает на вопрос, как массовое использование социальных сетей в условиях пандемии влияет на характер восприятия информации и дальнейшую реакцию пользователей на события. Цель статьи – показать, что социальные сети в какой-то степени отходят от роли инструмента и уже фиксируется концептуализация в качестве агрегатора общественного мнения в технокультурных отношениях. Таким образом в данной статье проводится исследование тенденции изменения экологического сознания казахстанцев во время пандемии. Научная значимость исследования заключается в поставленной теме. В статье были определены значение и роль социальных сетей в становлении основных трендов и тем. Это было осуществлено с помощью изучения основной площадки распространения экологических идей – социальной сети Инстаграм. Автором были использованы такие методы исследования, как интервью, а также методы эмпирического исследования, как наблюдение и сравнение (в социальных сетях). Исследованию способствовали такие качества и преимущества Инстаграм, как хештеги (#airpollution, #plasticpollution #кобейтуз), популярные новости, которые находились в ранге самых обсуждаемых и пересылаемых другим пользователям. В рамках исследования было проведено интервью с владельцами бизнеса по переработке вторичного сырья, проанализирован их практический опыт и предпринимательский взгляд на основные изменения в поведении потребителей, использующих услуги их компаний, а также представлен анализ изменения поведения граждан в период пандемии. В статье рассматривается гипотеза об увеличении активности в социальных сетях во время пандемии, что привело к интенсивному обсуждению экологических тем в Казахстане. Данная работа имеет важные исследовательские составляющие и может быть оценена экспертами в области изучения общественного мнения, а также послужить учебной базой для учащихся и начинающих специалистов.

Ключевые слова: экология, молодежь, социальные сети, экологическое сознание, пандемия.

### Introduction

The pandemic broke out at the end of 2019. It reached Kazakhstan in March 2020, which was immediately followed by the introduction of a state of emergency in the country. People were isolated. At that time, it was possible to observe a sharp increase in the use of the Internet. Accordingly, people began to spend more time on the Internet, in particular, on social networks.

In April 2020, the total volume of services in the communications market of the Republic of Kazakhstan increased by 12.8% compared to 2019. In the first three months of 2020, the largest share in the total volume of services fell on Internet communication services – 36.3%. Compared to the corresponding period of 2019, the growth was 13.5%. As mentioned earlier, the main reason for

the growth in March 2020 was the introduction of a state of emergency in the country, as well as the quarantine regime in many regions of the country. Thus, the role of the Internet in the period of emergency has grown significantly (Prime minister, 2020).

The environmental topic in the country was supported earlier, however, with the onset of the pandemic, the discussion of the main problems and the identification of new ones set a new trend in environmental topics.

The environmental awareness of young people in Kazakhstan has been discussed since the date of independence in Kazakhstan (from1991). With the development of social networks and media, this is happening much faster than we might imagine. As of this writing, the pandemic has been raging on the planet for a year now. In the first wave of quarantine, social networks were flooded with pictures of purified air, pictures of nature. But at the same time, one could see how people began to throw out more garbage. In the course of writing this work, interviews were conducted with companies that are engaged in the processing of secondary raw materials.

Environmental trends have been around us for a long time. As part of an educational program at UN universities, it organizes projects within the framework of the sustainable development program.

The essence of ecological consciousness is a reflection of the really practical relations of society. Society needs to know environmental norms, rules of conduct, and have a high level of environmental culture. The process of formation of ecological culture is considered as a unity of three problems: a broad explanation of the disastrous consequences of pollution of the environment; the acquisition of an ecological approach to the organization of the economy and other spheres of life and activities of society; the formation of environmental awareness. Social life has a tremendous influence on the formation of consciousness. Ecological culture is organically linked with the essence of the personality as a whole, with its various aspects and qualities. It is wrong to believe that the sphere of moral and environmental responsibility begins and operates

within the framework of professional morality. The most essential thing in the process of ecologization of morality is a gradual complex restructuring of consciousness. The norms of a moral attitude towards nature, which have become an internal need, can play a significant role in solving environmental problems (Ulyanova, 2007).

The main ecological trend was the active discussion on the network of photographs, how the air has been cleared in large cities of the world. Along with this, residents of the city of Almaty also began to observe a decrease in smog in the city. This is evidenced by two facts. First, all popular news portals began to publish materials regarding the visual change, as well as the chemical composition of the air. Such interest was awakened by the Kazakhstani business publication Forbes.kz (Serikbayev, 2020). To prepare their material on air, they turned to the laboratory "Ecology of the Biosphere". That is, the interest of some media was not limited to simple observation, but also went further into cooperation with experts, scientists and specialists.

Second point: active discussion of the disappearance of smog on social networks. Such an event also attracted Kazakhstanis. As a result, a flurry of public opinion began to spread on the network regarding the noticeable air purification in megacities.



Picture 1



Picture 2

Examples of such frequently sent pictures can be seen in Figures 1 and 2. These materials show the cities of Milan (Italy) and New Delhi, respectively (Nur.kz, 2020). This post received over 15 thousand likes and about 5000 comments. The number of likes on this post is 73% higher than the average number of likes on Instagram for this news account. On average, a post on the instagram account nur.kz gets about 4000 likes.

The main difference between official Internet publications and content on social networks is that in the second case, there is a duplication of official news from primary sources in the form of information portals of domestic and foreign media space. Nevertheless, both of these factors, one way or another, have a constant impact on the consciousness of Kazakhstanis. Here it is worth considering the fact that the activity of users on the Internet has greatly increased. This is evidenced by studies of the largest media in the country.

The main problem is that in Kazakhstan social media is a very young tool in the hands of influencers in ecological topics. Accordingly, now people have been investigating how they can use social media in covering environmental topics. We can see that foreign instagram pages developed more that local ones.

In this case main subject of investigation is content in social media in Kazakhstan.

#### Data and methods of study

The article uses the method of empirical research. Observing news and posts released during the quarantine, as well as analyzing comments as an indicator of public opinion assessing the environmental awareness of Kazakhstanis.

The aim and purpose of this article is to show how social media can affect people and how they can change environmental consciousness.

Thus, the study used methods such as interviews, observation, data analysis, and the use of survey results.

In this part of the article, it is important to note that Internet traffic has noticeably increased with the onset of the pandemic.

In picture 3 (see in Appendix), you can see the number of people who use social networks. As of July 2020, there are about 4 billion social media users in the world. Almost 99% of them have access to the Internet using mobile devices.

Picture 4 (See in Appendix) shows information on how often people started using their gadgets with the onset of the pandemic. Thus, it can be understood that the use of mobile devices has increased by 70%. Laptop usage has increased by 47%. The use of desktop computers increased by 33%. From this we can make a logical conclusion that people began to spend more time on the Internet.

The same conclusion can be drawn about the Kazakhstanis.

For the research part of this article, an interview was conducted with the Tazalyk company. Tazalyk in its presentation says that in 2018, 3,200,000 tons of waste accumulated in Kazakhstan. Of these, only 10.5% were sent for processing..

The pilot projects were closed due to the lack of preparation of the environmental awareness of the

population. Bins were installed to separate garbage into categories: garbage, waste paper, glass, plastic. Another reason is the lack of work with the population regarding the separate collection of solid waste.

The value of the project is that they reduce the flow of waste to landfills. The work takes place in two directions: for organizations and for residents.

To develop environmental awareness among young people, the following activities are carried out: the installation of containers, environmental campaigns, as well as environmental clean-ups.

Tazalyk cooperates with such large companies as KPMG, Makkenzy, Magnum, Adidas, Sanofi, Bayer, Baron, ABR (restaurant chain, there are 21 restaurants in the chain), Centras Insurance, NomadInsurance, Halyk Bank, as well as with government agencies such as Centers services to the population and akimats. That is, the project covers both private and state organizations. In general, there are more than 200 companies with which an agreement has been concluded.

The approximate age of customers generally depends on the company. Approximately, according to a representative of the Tazalyk organization, the age of people who hand over waste for recycling varies between 25-35 years. Also, representatives of the Tazalyk company note that the number of clients has grown significantly during the quarantine period. It is also worth noting that during the quarantine, the production of garbage increased significantly.

The pandemic has made a huge difference in business in that people are more likely to call drivers to their homes so the company can pick up the trash. This moment had a bad effect on the business, as it was necessary to constantly travel to clients. This factor has become burdensome and costly for such a business.

Another garbage sorting company KWR (KazakhstanWasteRecycling) also increased its activity during the quarantine. At the moment, it is noticed that the points of reception of secondary raw materials are often clogged. These observations indicate that the ecological consciousness of the inhabitants of the megalopolis has increased not only at the stage of discussion and comment, but also at the practical stage (Kai, 2012).

The next part of the research in this article will be social media materials on this topic.

For example, as previously mentioned, during the quarantine, people began to litter much more (AlmatyToday, 2020). The quarantine was introduced in Kazakhstan in March. If we talk about the largest city of Kazakhstan – Almaty, then the following situation arose. The city's Green Economy Department reported that in March the amount of waste in Almaty increased to 34.5 thousand tons, in April this figure was 40.2 thousand tons. For comparison, in February there were 23.2 thousand tons, in January 23.4 thousand tons of solid waste. They explain the change in the lifestyle of Almaty residents by possible reasons. This is general cleaning, disposal of trash, repair. Such waste can often be seen near garbage cans.

At the beginning of 2020, the social network KazNews published an article about the processing of secondary raw materials in the city of Almaty (KazNews, 2020). Social networks began to promote recycling in Kazakhstan. KazNews referred to the quote "If you want to live like in Europe, behave like a European." In this publication, the authors talked about how to sort and what to sort and where you can take secondary raw materials for processing.

On April 25, a post came out with photographs of how the cities looked before and after the pandemic. Examples of photographs have already been shown in Pic. 1 and Pic. 2.

Emissions into the atmosphere have become significantly less. Therefore, in the social networks began to spread pictures of the largest cities before the pandemic and after the pandemic. These photographs have had a significant impact on people. This has already been mentioned in the introductory part of this article.

On May 25, 2020, the post of the famous Kazakhstani blogger Yerzhan Yesimkhanov about Kok Zhailau was published (Yesimkhanov, 2020). The post received over 3000 likes. This blogger is distinguished by very harsh truthful statements about what is happening in Kazakhstan. About the world, he does not touch on topics so deeply. After all, we live in Kazakhstan, which means that we need to discuss and reflect on Kazakhstan. Comments in this account are also subject to study, since the blogger is read mainly by intelligent people of mature age, as well as progressive youth.

So, what the blogger writes about youth and the environment, based on his observations. "Several travel companies have organized a night movie screening on Kok Zhailau. It was attended by almost 500 people. In addition to the cinema itself, the organizers managed to drag up a jeep with a cheerful number 888. And also to leave behind mountains of rubbish. The guys didn't figure out that they needed to clean up after themselves. They guessed to raise the jeep upstairs, but to lower the garbage down – somehow not.

And the worst thing is that everyone we saw going down and up were very young guys. Young,

beautiful girls and guys. And in the photos from the holiday, which are now circulating in all the media, there are also young people. It turns out that a generation has grown on our head. A generation that perceives our mountains as an entertainment area, as a nightclub. In the club, you can pour beer on the bar – and nothing, the cleaning lady will clean it up. Some kind of such, apparently, the attitude to our mountains has developed. We will have fun – and clean others.

These people should be punished, indicatively, and the public should be informed about it. It is very important. But, unfortunately, it is not only about them. The entire road to Kok Zhailau is usually littered with debris. There are people who respect the mountains, do not break branches, do not make noise, and clean up the trash after themselves. And there are people who perceive the mountains as a place to entertain themselves, their loved ones. Like an endless playground where you can shit, throw garbage, drink, spit, swear – the mountains will endure everything. And the second, unfortunately, no less than the first.

There are people who just don't deserve our mountains. Because they do not know how to behave there. The issue of garbage in Kokzhailau and other places popular with backpackers should be resolved systematically. There must be a control works. There should be patrols along the tracks. Everyone who leaves such places as Butatovka and Kokzhailau must present garbage bags at the exit – there is no one of your own, so pick up someone else's, make a contribution to the purification of nature. And those who throw rubbish should be held accountable, even criminal.

The Minister of Ecology of the Republic of Kazakhstan Mugzum Mirzagaliev wrote about the spontaneous dumps on his page on the social network (AlmatyToday, 2020). "As you remember, recently the head of the state darts drew special attention to the situation with natural landfills in the country. To monitor the situation on this problem in Kazakhstan, our ministry is launching a special hot line. Within a month, we intend to conduct a full monitoring of landfills in the country. Based on the results, we will provide additional information. We will be together with you, as well as the Department of Internal Affairs and akimats, to monitor the situation, go to places and take action. "

On July 10, the President of the Republic of Kazakhstan Kassym-Zhomart Tokayev, raising environmental issues, made a special emphasis on the problem of spontaneous dumps. Over 5 million tons of garbage are generated in Kazakhstan annually. The share of their processing in the country is only 15%, which is not enough on a national scale. Therefore, the President of the country instructed the government to expeditiously ensure the legislative framework and favorable investment conditions for the implementation of Wastetoenergy technology.

The month of July is marked by the fact that social networks are actively discussing the environmental situation in the city and ways to resolve problems. The following materials served as striking examples of such publications on social networks.

July 22 – the introduction of a fine for garbage.

August 14 – the beginning of environmental monitoring.

August 18 – air quality monitoring in the city of Almaty.

August 29 – green control in the city of Almaty. September 19 – World Clean Up Day.

#### Literature review

This study used the theoretical material of such foreign authors as Anders Hansen (University of Leicester, UK), who studied topics such as communication, media, content, as well as the consequences of environmental communication. Foreign experience of studying and researching social networks in practice shows that the basic research schemes can be used as a basis for research in the Kazakhstani segment (Hansen, 2011).

The article is based on a large amount of material from the pages of social networks, as well as comments and opinions of the audience interested in environmental topics. The author also conducted interviews with business owners in the field of recycling of secondary raw materials. Their opinion and expert assessment of the market became part of the research. Facebook, for example, reported 2.38 billion monthly active users and 1.56 billion daily active users as of March 31, 2019 (Facebook 2019). It is estimated that the total number of social media users in the world will grow to 3.29 billion users in 2022, representing 42.3% of the world's population (eMarketer 2018). Given the huge available potential audience that spends many hours a day on social media across multiple platforms, it's no surprise that marketers have embraced social media as a marketing channel. From an academic point of view, social media is also widely used, and an extensive body of research has been developed on social media marketing and related topics such as word of mouth (WOM) and online media. Although academics and practitioners have studied and learned on this topic over the past 15 to 20 years, due to the rapidly evolving and ever-changing nature of social media – and how consumers use it – the future of social media in marketing may not change (Appel, 2020).

There was mentioned before about young people who leaves garbage in the mountains. Some opinions was taken from the investigation of generation Y (Bolton, 2013).

To compile the research part of this article, it was also necessary to study the experience of foreign scientists in the field of interaction between social networks and the environment. Thus, works such as Zhang (2020), who explored in his material on creating tourism experiences in air pollution conditions: a spatial analytic approach using social media, were reviewed. It's very interesting to see social media as such a powerful tool.

Another author's study looks at measuring social media impact by looking at how often respondents have encountered news and information about COVID-19 on social media over the past week (Gao, 2020).

The following study examined the determinants of disposal intent among the population of Penang, in particular attitudes, social norms, social media, and self-efficacy, and explored the regulatory role of government and non-governmental organizations (NGOs) in transforming disposal intent (Sujata, 2019). A similar topic was raised by Kay, who noted in his research the role of social media in the actions of the Chinese authorities in the fight against air pollution (Kay, 2019).

Thus, during the study of the correlation of the ecological consciousness of Kazakhstanis in connection with the pandemic, the author resorted to the above works.

Firstly, these materials served as samples of high-quality and illustrative research. Secondly, we needed some data on the use of social networks, which relate to the entire population of the planet, including Kazakhstan.

#### Results

The purpose of this scientific article was to show the correlation between the ecological consciousness of Kazakhstanis and the pandemic. On the one hand, it seems that a heated discussion of acute environmental topics, undoubtedly, entails a total change in the environmental awareness of the population. Therefore, in this article, the idea was laid not only to show statistical data on how much the Internet consumption traffic has increased, as well as the schedule for the use of gadgets and devices, but also how public opinion has changed regarding environmental topics regarding environmental pollution with household waste, air pollution and problems with sorting garbage.

The investigations in this article proved the hypothesis that during the pandemic, activity on social networks increased significantly, which led to an intensive discussion of environmental topics in Kazakhstan.

Thus, the main body of the study can be divided into two parts. The first one proves the increase in consumption of Internet resources. The second part shows the practical change in the environmental awareness of Kazakhstanis.

Actually, Kazakhstani people consume two kinds of content: local and foreign. Foreign content brings Kazakhstanis closer to environmental issues. People share, tell each other, and express emotions about the topics. Kazakhstani content: demonstrates calls to action. Bloggers guides on environmental issues in Kazakhstan. Processing companies tell about their work. And people can get air monitoring information from social media.

# Conclusion

Social media platforms play an increasingly important role in the environmental awareness of Kazakhstanis, this is a very important aspect. Experts and academics are beginning to understand that these platforms are more than just a platform for sharing information. On the contrary, social networks should be understood as a complex method of communication, which includes various methods of exchanging information (pictures, video, text, audio). Thus, it can be concluded that the environmental consciousness of Kazakhstanis is undergoing a deep transformation under the influence of social networks.

The study shows that the massive use of social networks has a significant impact on the actions of Kazakhstanis. For example, as previously shown in the article, people began to sort more trash and encourage others to do so. During the pandemic, a large number of videos and photographs were published, which had a great power to influence the environmental awareness of Kazakhstanis.

Until now, such a transformation of ecological consciousness during a pandemic has not been deeply studied in a concrete way (Cinelli, 2020).

Researchers have mainly focused on a limited set of studies that could reveal the attitudes of social media users towards the issues under consideration.

Observation in this area cannot be stopped. Social media evolves, trends change, and research space expands over time. The challenge is to explore how different platforms work on this topic.

The plans are to sufficiently develop methods for collecting, storing and processing data from social networks, so that the research turns out to be of high quality and useful for further systematic observations and laying the foundation for environmental projects.

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#### **Electronic resources**

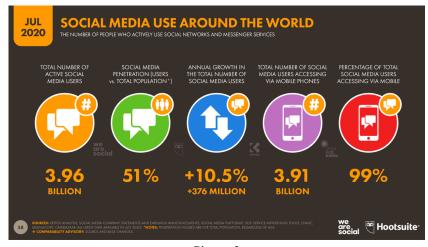
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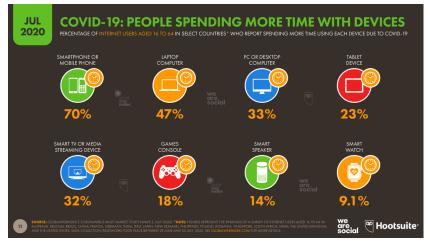
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Picture 3



Picture 4