Creating effective translation and localization strategies to promote Korean culture on the Ukrainian-language internet

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Abstract
The research aims to develop and test translation and localization strategies to promote Korean culture on the Ukrainian-language Internet. The main objectives include analyzing the needs of the Ukrainian-speaking audience for content about Korean culture, studying existing Ukrainian-language resources, and developing a unique website that will meet these needs. The methodology includes a literature review, a survey of K-pop fans, web analytics analysis, and experimental research. The conclusions of this research will help to improve the understanding of the processes of translation and localization of Korean culture for the Ukrainian-speaking audience. The study confirmed the importance of creating a Ukrainian-language web resource about Korean culture that would meet the needs and interests of the Ukrainian-speaking audience of K-pop fans and Korean culture fans. Such a resource can be a valuable tool for promoting and popularizing Korean culture in Ukraine and facilitating cultural exchange between the two countries.

Keywords
Translation and Localization Strategies, Korean Culture Promotion, Ukrainian-speaking Internet, K-pop Fans, Content Analysis. Web Resource Development, K-pop.

1. Introduction

In the era of the information revolution in which we live, access to high quality and up-to-date information has become one of the most valuable resources. Due to the Internet and modern means of communication, we can easily access various sources and find answers to our questions, learn new things and develop our professional and personal growth. In this context, specialized thematic content becomes a key tool for achieving information success.

Specialized thematic content is information material aimed at a specific, often narrow, audience and specialized topics. This can be a blog, video channel, podcast, online course, forum, or any other means of transmitting information. The main feature of specialized

content is a deep dive into a particular topic or industry, which allows us to provide high quality and expert information.

A kind of specialized thematic content is information about Korean culture, which is developing rapidly and is one of the most popular cultures in the world today.

After the start of the full-scale invasion in Ukraine, the demand for Ukrainian-language resources has increased dramatically. Ukrainians already prefer not only foreign resources (in particular, Russian ones) but also Ukrainian ones. However, not all resources are available in Ukrainian, especially specialized resources. Although Korean culture is popular in Ukraine, there are currently no information resources that would be able to present this culture well to the user. That is why there is a need to create new Ukrainian-language resources about Korean culture.

The purpose of the article is to conduct a study of Korean culture, especially music as a modern phenomenon, and to investigate the level of development of Ukrainian resources on Korean culture and the demand for new resources; to create a website that will meet the needs of users and offer them unique content about Korean culture.

2. Related Work

A literature review of website localization and translation issues has shown that these issues are well grounded in science and methodology.

Traditionally, website translation has been considered a process that moves from global to local or from primary to secondary, and has been mostly referred to as localization [1].

Dandiwala N. presents a brief overview of different cultural models and theoretical approaches, explores vivid localization perspectives and methods, and provides a collective framework that covers several stages of research, analysis, and design iterations within the website development lifecycle in order to increase the effectiveness of the localization process with due respect for the target culture [2].

Nie P. and others propose a technology for localizing web page blocks based on JS scripts that is convenient for human-computer interaction. The researchers' experiments prove that such a script demonstrates improved performance in both interaction and block mode. In addition, the developed scheme can be integrated with the crawler technology to monitor the web page block through the interaction of web page block localization, and it can be applied to the web page problem feedback module to facilitate user feedback and suggestions [3].

Bilal S. and Darwish I. in their own study rely on the concept proposed by Olvera-Lobo and Castillo-Rodríguez (2019) regarding the linguistic and cultural aspects of localized websites. The researchers conclude that the recommendations on language and cultural aspects of website localization presented by Olvera-Lobo and Castillo-Rodríguez (2019) proved to be valuable for evaluating localized versions of international non-governmental organizations, as they cover a wide range of aspects required by the target audience [4].

Imani K. and Mulyanto A. took into account a culturally oriented approach when localizing the global education website. The website localization in this study was carried out in two stages, and cultural considerations during the development process included observations of local users, a local site audit, and cultural analysis based on the Hofstede

model. During the final iteration, the localized website was tested against the original website, resulting in improved usability and user experience, as well as overall satisfaction with the website interface [5].

Important issues in website localization are terminological and lexical aspects, which have also been studied by various authors from different perspectives [6, 7, 8].

It is important to study the peculiarities of Korean culture [9]. Choi H. calls the "Korean wave" or "Hallyu" a real cultural phenomenon [10].

Korea has become the seventh largest music market in the world, and K-pop idol groups regularly hit the Billboard charts, despite coming from a post-colonial country. However, there is a lack of theoretical and empirical researches that would explain this phenomenon [11]. The largest number of relevant studies in this area was conducted after 2019.

Digitization has affected various sectors of the Korean music industry, such as business, society, and consumers. It has also changed the focus of industry management: from analog to digital, from offline to online, from albums to songs, from specialization to integration, from domestic suppliers to international, from sound to visuals, from ownership to access, and from limited integration to synergistic networking. This means that the use of technological progress can increase the competitiveness of cultural industries [12].

An important role in popularizing the Korean pop industry is played by social networks, which have gained considerable popularity in recent years. In particular, Abidin C. and Lee J. explore how TikTok has expanded across the South Korean landscape using K-pop as a tool, demonstrating the theory of "platform globalization" [13]. Ferguson M. looks at the popular YouTube channel "Deksorkrao", created by a group of K-pop fans in northeastern Thailand. The authors argue that this form of creative participation is a uniquely authentic expression that addresses the familiar discourse of Thai life but uses Q-pop as its medium [14].

Lin C. et al. studied the relationship between a number of relevant social and psychological factors to explain how K-pop has also contributed to the unique phenomenon of transcultural communication online through social media. The online survey was conducted among American students of non-Asian descent, as K-pop is very popular among this group of music fans [15].

The study by Chansanam W et al. aimed to examine and analyze the influence of Korean popular culture (K-pop) on Thai society. The authors found strong positive correlations between the number of dislikes and the number of comments (0.79), as well as between the number of likes and comments (0.65). In addition, a positive correlation was found between the number of views and the number of dislikes, as well as between likes and dislikes [16].

One of the most popular social networks used to promote K-pop is Twitter. A number of researchers, including Aisyah A., Zainudin I.S. and Yoan R.S. [17], has studied this network in the context of Korean culture.

Thus, information localization is a complex process that requires a translator to have knowledge of the field in which he or she is translating in order to correctly translate words related to the industry. During the translation of information and creation of the website, it is necessary to comply with the laws governing the operation of websites and ISO standards.

3. Methodology

1. Qualitative analysis of the literature: systematic review of scientific publications, books and other sources related to website localization and translation, Korean culture and K-pop music: synthesize and analyze information to identify key topics and trends.
2. Content analysis: systematic coding and analysis of existing Ukrainian-language web resources on Korean culture; determination of the frequency and content of Korean culture presented on various resources.
3. Survey: development of a standardized questionnaire based on the theory of public opinion polls and previous research; analyzing survey data using qualitative and quantitative methods.
4. Web analytics analysis: using web analytics tools to study user behavior on existing resources; key metrics analysis, such as number of visits, bounces, pages viewed, etc.
5. User experience research: observations and interviews with users to collect data on their needs, preferences, and problems; data analysis to identify key differences and common trends among users.
6. Experimental design: implementation of controlled experiments to study the effectiveness of different translation and localization strategies on audience engagement; collecting and analyzing data on user reactions to different content and interface options.
7. Data statistical analysis: use statistical methods, such as regression analysis or variance analysis, to assess the relationship between different variables and identify patterns; identification of statistically significant differences and dependencies in the data under study.

4. The Present State of Korean Culture Representation in the Ukrainian-Language Internet-Segment

In recent years, K-pop has become not just a song in listeners' playlists, but also a Korean cultural phenomenon that is popular all over the world.

K-pop, using the Korean language, traditions and symbols, stimulates interest in Korean culture, promotes the preservation of the national heritage and fosters national pride among South Korean youth and fans around the world. Thanks to music, South Korea has made a brand of its country. K-pop is not just a genre of music, but also a hallmark of South Korea that popularizes Korean culture around the world. The videos, choreographies, and performances of Korean artists are exciting, and the music is diverse. K-pop influences trends in music and Korean bands' concerts are coveted around the world.

Ukraine also wants to improve its relations with South Korea through cultural exchange. On May 17, 2023, a memorandum was signed between the Embassy of Ukraine in Korea and the Seoul City Hall, which will allow Ukraine and Korea to conduct cultural and artistic exchanges. Ukraine seeks to further improve relations with South Korea and is working on launching a Ukrainian-language audio guide.

Although Korean music is popular all over the world, not many listeners in Ukraine are fans of Korean music. If we use Google search and enter the query "корейська музика" ("Korean music") using only Ukrainian results, we can conclude that there are no developed Ukrainian websites about Korean music.
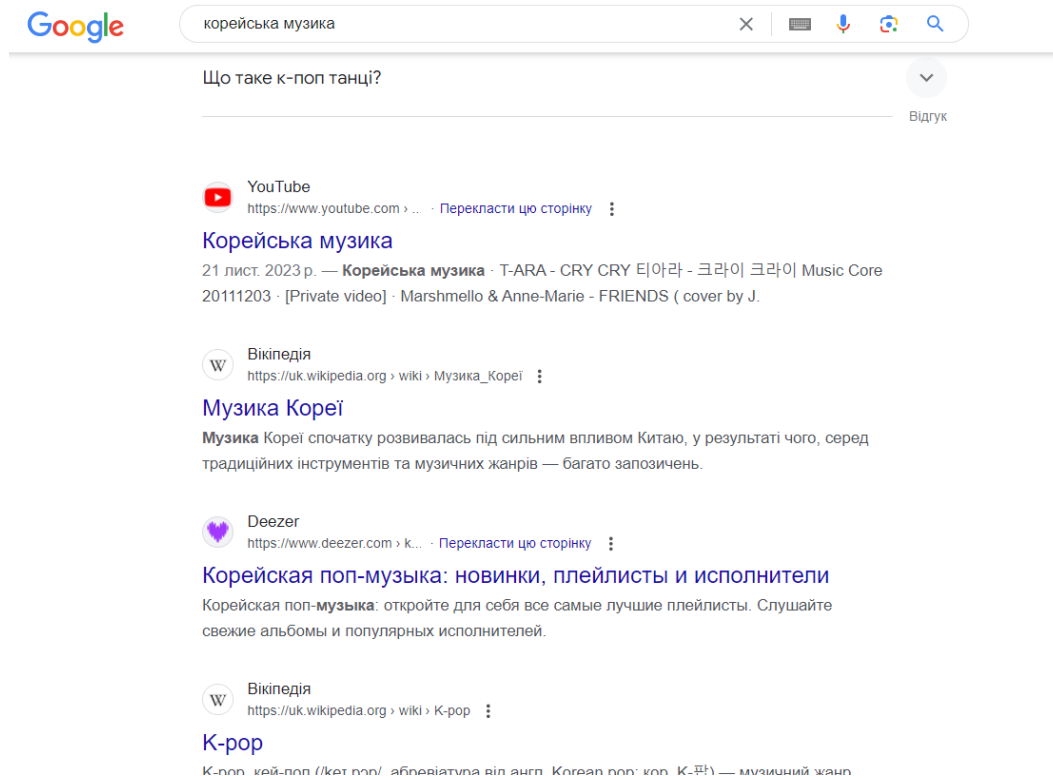

Figure 1: Google search results for "корейська музика" ("Korean music").

All the results presented are articles about Korean music, but they are not specialized resources. In addition to articles on various websites, there are also pages of music services and pages of stores selling Korean products in Ukraine. If you use the more general query "kpop" or "k-pop", the situation does not change much.

The only Ukrainian site that presents Korean music specifically is "K-pop вікі" ("K-pop wiki"). This is the Wikipedia page where you can find information about k-pop artists. However, unlike foreign Wikipedia's, the Ukrainian page is not very well filled.

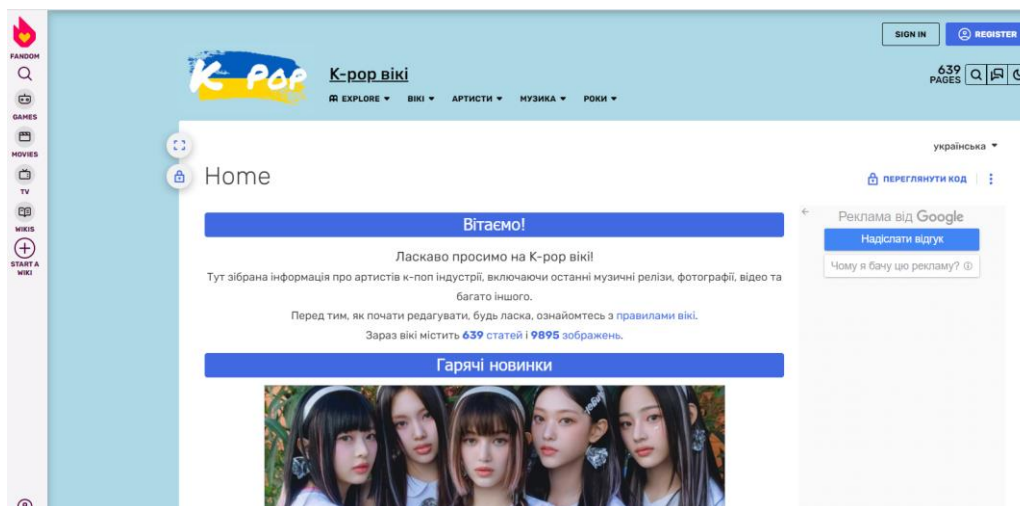A large number of categories are empty pages, even though the page has been created.

Figure 2: Internet resource "K-pop вікі" ("K-pop wiki").

Consequently, no websites were found that could meet the needs of users in Korean music. In addition, if the search filter in Ukrainian is not enabled, there are many Russian resources available when searching for a search query. Therefore, there is a need to create a website about Korean music.

The situation with social networks is better. While there is only one website about Korean music, there are more social media channels. For the analysis, we chose two social networks with the largest number of fan pages and YouTube video hosting.

Depending on the query, you can find different results on YouTube. Using the queries "корейський хіп-хоп" ("Korean hip-hop"), "корейська музика" ("Korean music"), "корейські ости з дорам" ("Korean drama osts"), we managed to find only one of the authors of the study's own channel, "МаксимInYourArea" ("MaksymInYourArea"), among Ukrainian channels.

The query "кроп українською" ("kpop in Ukrainian") found many more channels.

One of the largest channels is the channel "Kpop – Ukrainian Translations". The channel translates Korean songs into Ukrainian. As of February 16, 2014, the channel has 422 videos and is constantly publishing new videos. The channel translates both new and old Korean songs. The main disadvantages are that most of the translated songs are by popular artists and usually of similar genres.
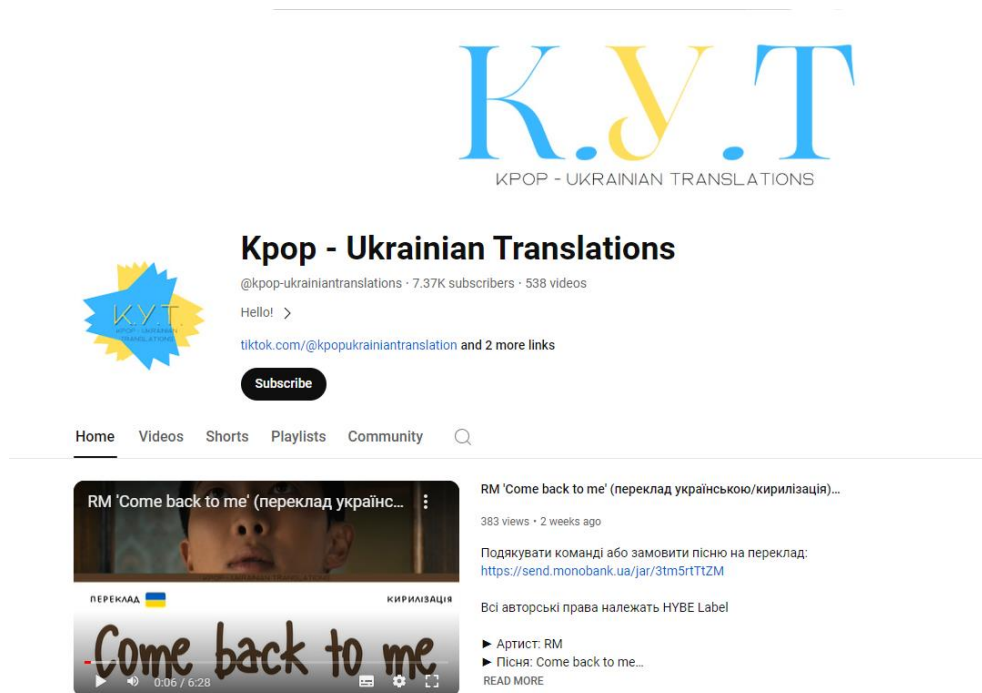
Figure 3: The channel "Kpop – Ukrainian Translations".

In addition to translations of songs, we also managed to find three channels that talk about the k-pop industry: Ritis, Rinny, sonikka.

There are also several channels on YouTube that translate official videos of various groups. As a rule, channels with Ukrainian translations are available only for popular bands. Because of the search, we found three channels that translate the content of the groups. These channels are "STRAY KIDS UA", "TV_ArmyBTS_UA" and "BLACKPINK Ukraine". The channels with videos about BlackPink and Bts are active and constantly releasing new videos, while the channel about Stray Kids was closed in November 2013.

There are many blogs about k-pop on Twitter. As a rule, these are personal blogs of users with their opinions and retweets of other posts, but you can also find communities with different groups. The search resulted in a few communities about BlackPink, but there are also pages about other groups.

Instagram also has pages about K-pop. Unlike other social networks, there are many shops selling K-pop items on Instagram. As opposed to Twitter, content on Instagram is presented in the form of short news or posts via stories or posts on the group page. Typically, various groups post translations, photo collections, news, and other types of content. Although there are far more Instagram pages than YouTube, it is also difficult to find information about other genres of Korean music and lesser-known artists on Instagram. In addition, one of the advantages of Instagram and Twitter is the activity of pages. While bloggers on YouTube and blogs rarely post their videos, many bloggers on Instagram and Twitter update their pages and add new content every day.

After analyzing search queries and social media, we can conclude that Ukrainian websites and social media pages cannot fully meet the needs of users. Wikipedia and social networks contain information only about popular bands, and it is difficult or impossible to find information about lesser-known performers. In particular, the number of channels on YouTube and websites on Google is low compared to social networks.

To better understand whether Korean music fans need these resources and would use them, a Google Forms survey was conducted among Korean music fans in Ukraine. There are 202 respondents to the survey. Based on the results of the survey (Figures 4-7), we conclude that Ukrainians lack Ukrainian resources on Korean culture and there is a need to create new ones.
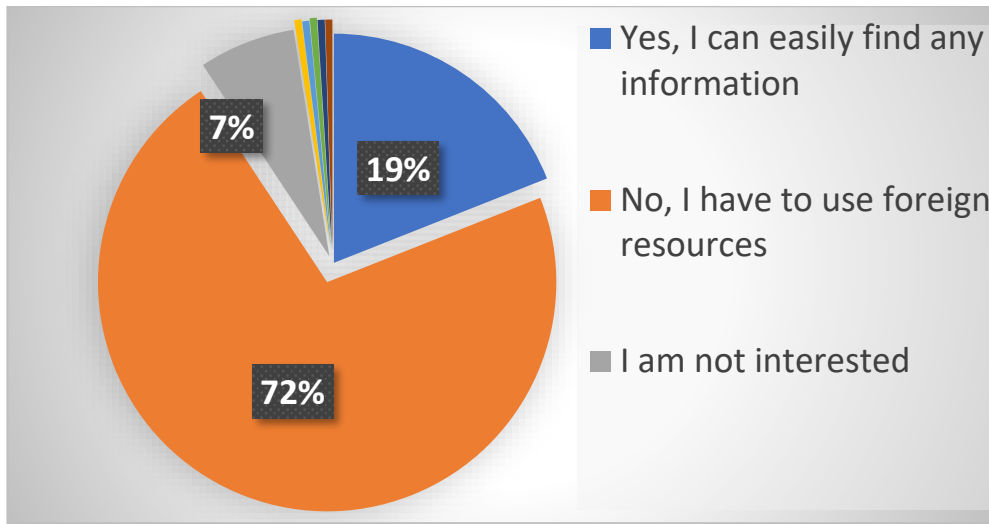

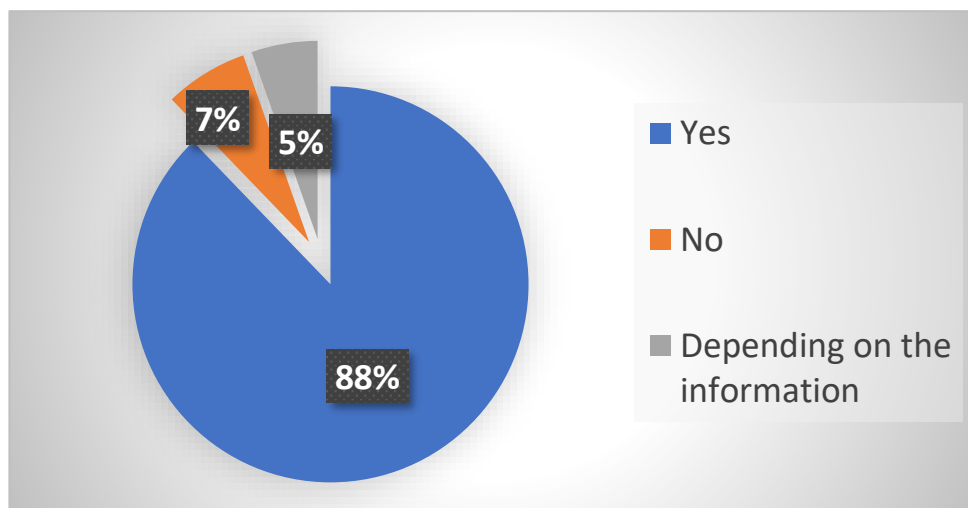**Figure 4:** Results of answers to the question "Do you have enough Ukrainian-language content about Korean music?"

Figure 5: Results of answers to the question "Would you use a Ukrainian-language website?"
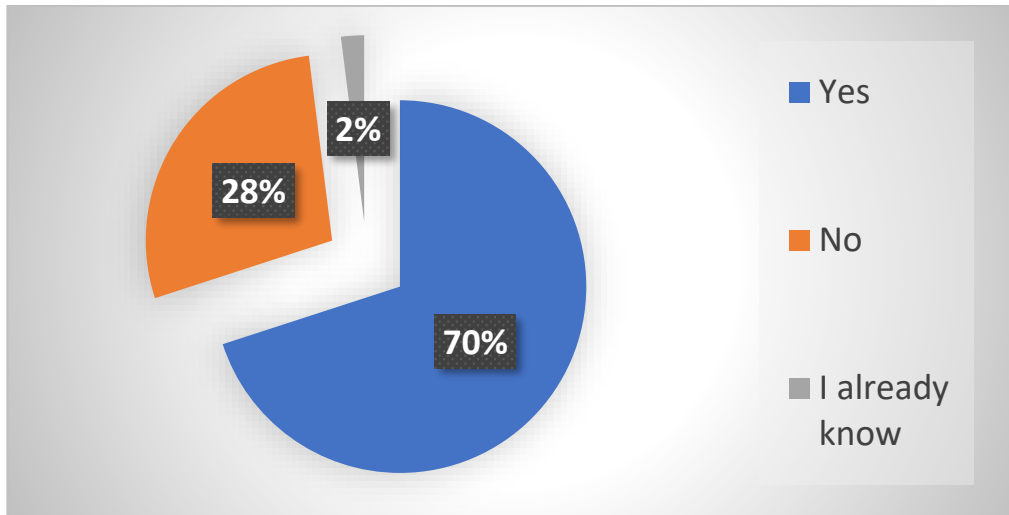
Figure 6: Results of answers to the question "Would you like to learn more about Korean music?"
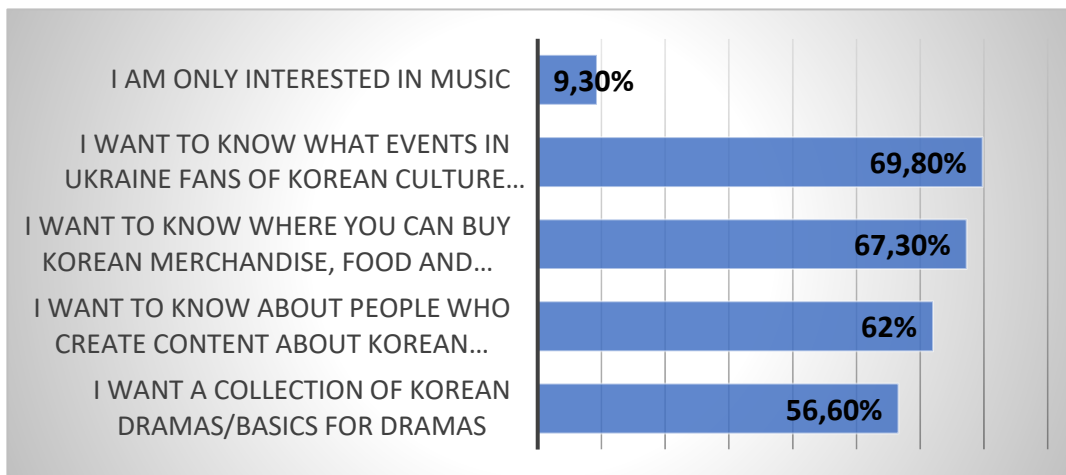

Figure 7: Results of answers to the question "What additional information about Korean culture would you like to receive on the website?"

Ukrainians are interested in information about both music and Korean culture in general. It is also worth noting that many Ukrainians are interested in content related to the development of Korean culture in Ukraine.

5. Development of a Ukrainian-language Internet resource about Korean culture

For a better understanding of the processes that need to be performed to develop a Ukrainian-language Internet resource about Korean culture, including music, a goal tree was built.
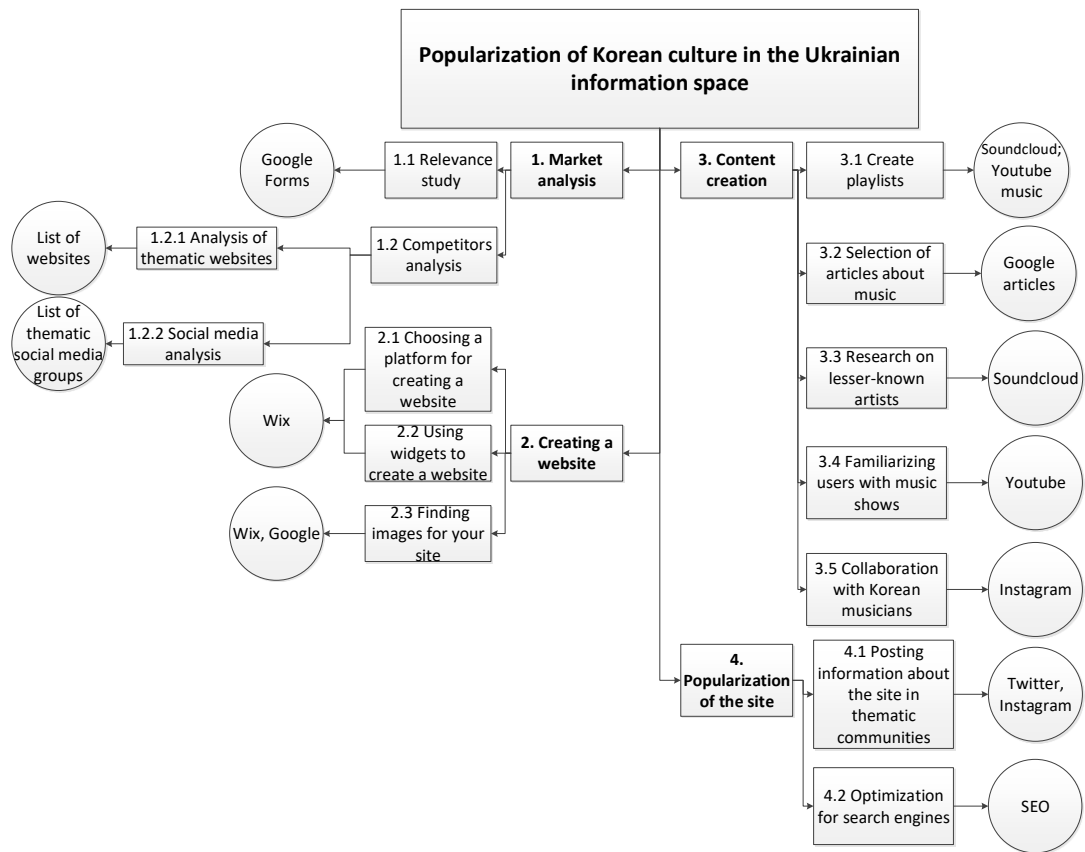
Popularization of Korean culture in the Ukrainian information space

Google Forms — 1.1 Relevance study — 1. Market analysis

List of websites — 1.2.1 Analysis of thematic websites — 1.2 Competitors analysis

List of thematic social media groups — 1.2.2 Social media analysis

2.1 Choosing a platform for creating a website

Wix — 2.2 Using widgets to create a website — 2. Creating a website

Wix, Google — 2.3 Finding images for your site

3. Content creation

3.1 Create playlists — Soundcloud; Youtube music

3.2 Selection of articles about music — Google articles

3.3 Research on lesser-known artists — Soundcloud

3.4 Familiarizing users with music shows — Youtube

3.5 Collaboration with Korean musicians — Instagram

4. Popularization of the site

4.1 Posting information about the site in thematic communities — Twitter, Instagram

4.2 Optimization for search engines — SEO

Figure 8: Goal tree

For a better understanding of the main task, an entity-relationship diagram in Barker's notation is constructed according to the main task of the study.

The model's entities are content, content sources, target audience, and content popularization activities.
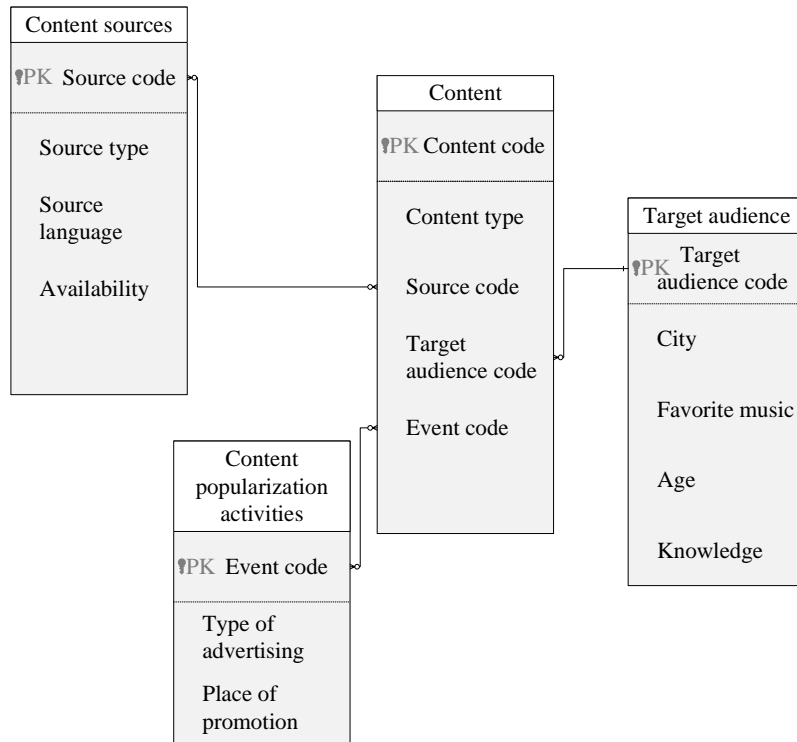
Figure 9: Information model

Using the DFD representation, Fig. 10 shows the process of developing a website about Korean culture.
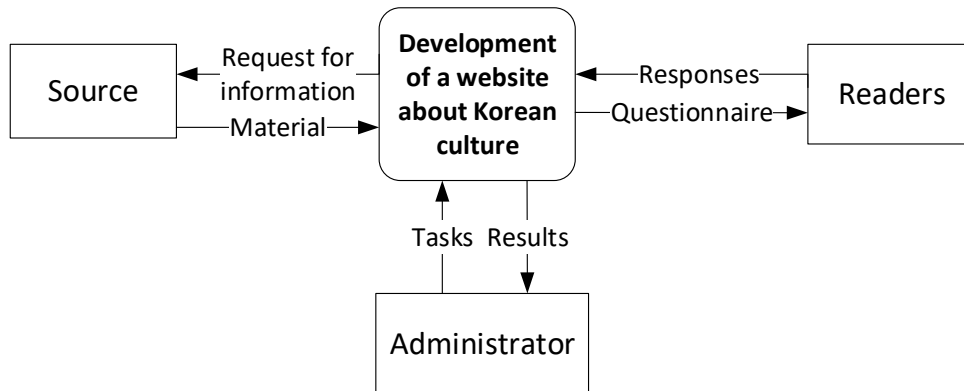

Figure 10: DFD information support

External entities are Readers, Administrative and Source. The processes in the diagram are carried out using data flows. The Administrator provides the task for ukrainization and then the Readers receive a questionnaire with questions to answer about what they want to see on the site. After that, Readers provide answers that serve as a future request for information for content creation. The Source fulfills the request and provides the content for ukrainization, which is then received by the Administrator in the form of results.

The process of developing a website about Korean culture can be divided into eight sub processes (Fig. 11): task analysis; creating a form; analysis of response; definition of keyword; create search query; material verification; ukrainization of the materials; formation of the results
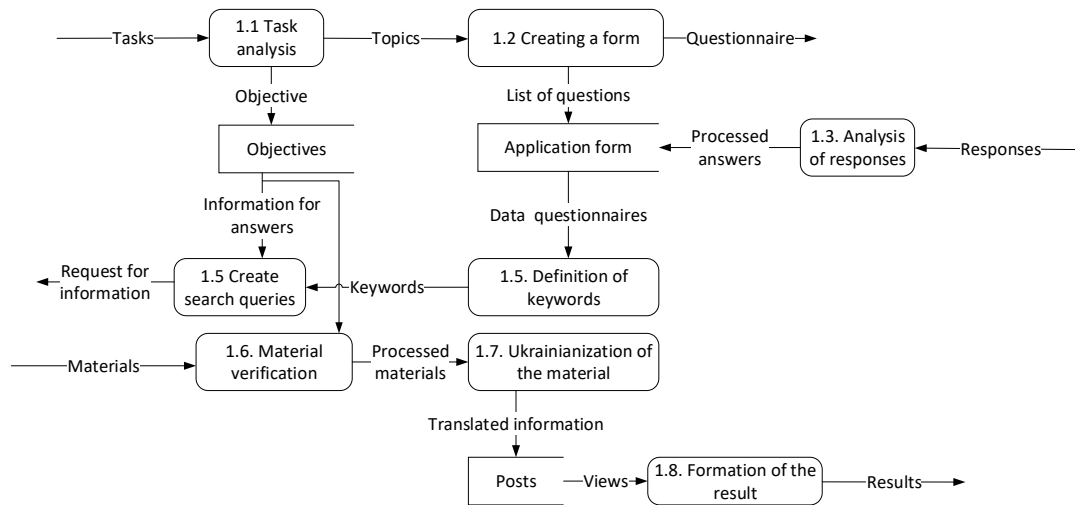

Figure 11: Decomposition of the 1st level

To implement the key task, it was decided to choose a Content Management System (CMS), which today significantly facilitates the work of web developers.

Today, the most popular freely distributed CMS are the following: WordPress, Joomla, Drupal, MODX, Wix. Each of them has its own characteristics, advantages and disadvantages [18].

Since the main task is to develop a website about culture, especially music, its main function is to inform users about the peculiarities of Korean culture. To present such information, a good choice is a blog site with articles, where it will be convenient to post all the articles and insert video and audio content. To create a blog, it is not necessary to use a lot of resources and the main types of data are text and music, so this type of site can be created on a no-code platform. In addition, playlists are the main method of distributing music in the article, so the advantage of the builder will be the ability to create playlists and customize them. The site will also have its own videos, so another advantage will be the ability to create and customize a video player. Therefore, it was decided to pay attention to the convenience and ability to create playlists.

There are 5 constructors (Weblium, SquareSpace, Siter, Dorik, Wix) that have been analyzed that are user-friendly and offer the possibility of creating websites free.

Analyzing the capabilities of all the builders, we can conclude that Wix is the best builder for creating a website with a variety of content. It has many different elements and options for video/audio customization. At the same time, it is convenient and conditionally free.

Because of processing the accumulated information about Korean culture and translating them, a Ukrainian-language Internet resource about Korean culture was developed, which consists of three main pages: Головна (Home), Музика (Music) and Культура (Culture).
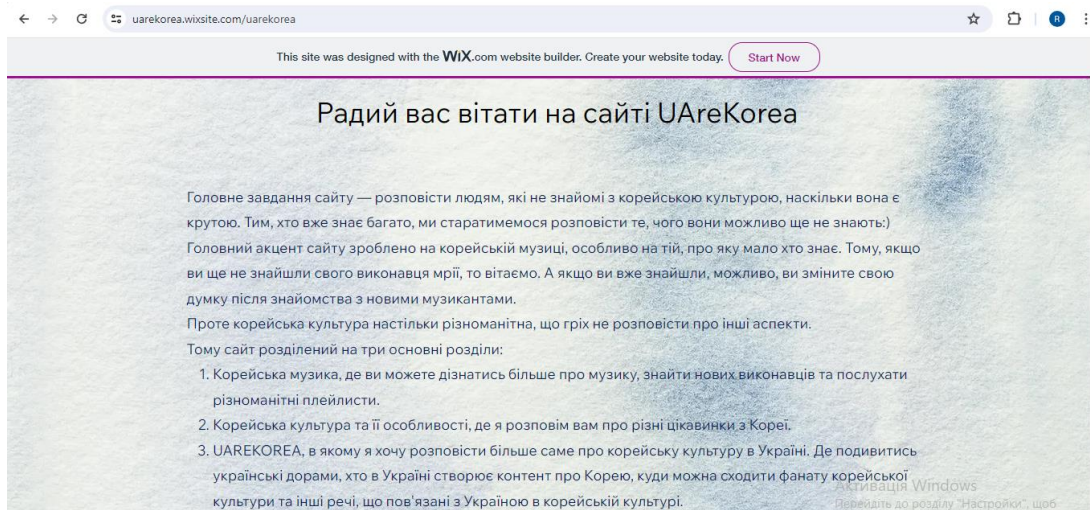
Figure 12: Home page of the developed Ukrainian-language website UAreKorea

The page "Музика" ("Music") contains 9 subsections: Корейський андеграунд, або чому маловідомі корейські виконавці це дійсно ґрунт (Korean Underground, or why little-known Korean artists are really a ground); Як попасти під землю або огляд на SoundCloud (How to get underground or an overview on SoundCloud); Традиційна музика: Гомунго (Traditional music: Gomungo); 10 крутих виконавців ,про яких ви не чули (10 cool artists you haven't heard of); Jvcki Wai, про яку Ви не знали (Jvcki Wai, who you didn't know about); Корейський андерграунд: Futuristic Swaver (Korean underground: Futuristic Swaver); Чому варто зберігати пісні? (Why you should save songs); 200 найкращих корейських виконавців (200 best Korean artists); Традиційна музика: Гаягим (Traditional music: Gayagim).
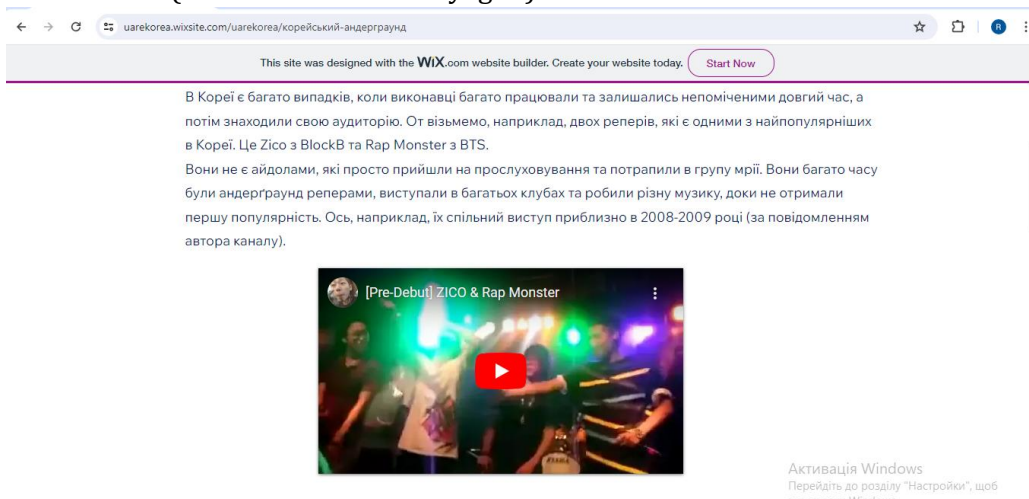

Figure 13: The page "Корейський андеграунд" ("Korean underground")

The page "Культура" ("Culture") contains 7 subsections:: На бейсбол як на концерт (Baseball as a concert); Корейський кінематограф (Korean cinema); Корейська ігрова індустрія (Korean gaming industry); 5 корейських дорам про героїв з крутими здібностями (5 Korean dramas about heroes with cool powers); Корейський традиційний одяг (Korean traditional clothing); Чусок (Chusok); Корейський новий рік (Korean New Year).

After publishing articles and conducting an advertising campaign on social media, the first statistics have already been received in the personal account. More than 200 users visited the site in the first days of its existence.
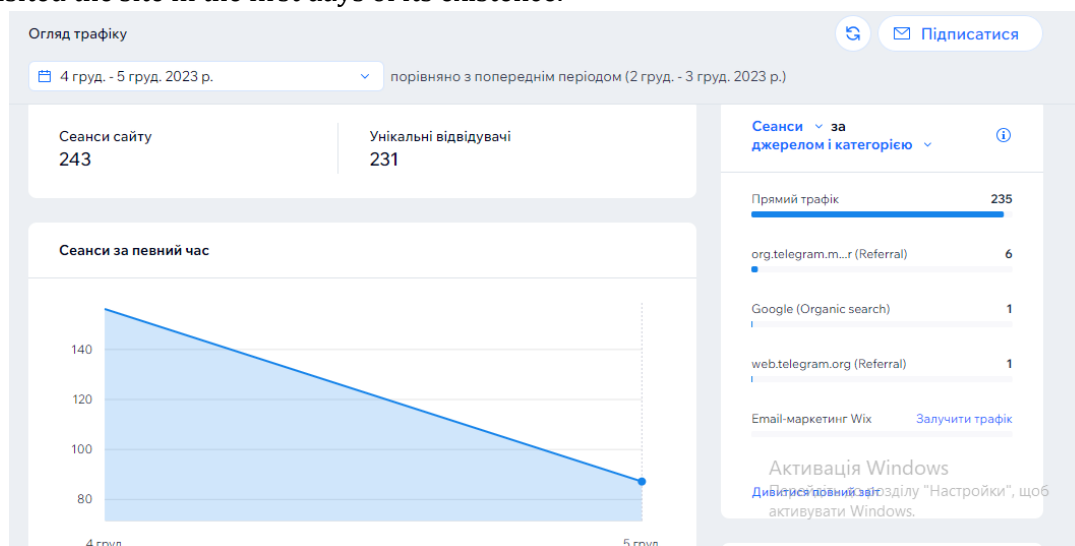

Figure 14: Visits statistics (as of December 6, 2023)

Since each article on the site has comments available, you can see the real reaction of people and their impressions of the articles they read. Some of the site's visitors turned out to be active users and left their feedback. In addition, there was a positive reaction in Telegram.

The website features a wide variety of content, focusing on two key aspects: Korean culture and music, as well as the Ukrainian component. The site has the potential to attract an audience through information about cultural aspects of Korea, and provides useful selections for Ukrainians, pointing out events and content of interest to the Ukrainian audience. The resource was created to provide information related to cultural exchange and the development of the interests of the audience of both cultural spheres. According to user feedback, the site fulfills its function and is interesting. In the first few days, 200 users have already visited the site and left positive feedback. The site is available 24/7 and loads quickly.

6. Translation and localization strategies to promote Korean culture on the Ukrainian-language Internet

Effective translation and localization strategies for promoting Korean culture on the Ukrainian-language Internet include the following:

- Content translation: translation of Korean articles, news, blogs, and other textual materials into Ukrainian to provide Ukrainian-speaking audiences with access to information about Korean culture and K-pop music.
- Multimedia content localization: translation and dubbing of Korean videos, music, animations and other multimedia content into Ukrainian for easy consumption by the Ukrainian-speaking audience.
- Adaptation to local contexts: taking into account the peculiarities of Ukrainian culture and mentality when translating and creating content about Korean culture. For example, adding explanatory comments about traditions and customs that may be unknown to the Ukrainian audience.
- Interactive content: creating interactive elements such as quizzes, games, polls, etc. that encourage users to interact with Korean culture and music.
- Collaborating with local influencers: working with Ukrainian-language bloggers, YouTubers, and other influencers to promote Korean culture to their audiences.
- Unique content creation: development of original content about Korean culture that would be interesting, useful and meet the needs of the Ukrainian-speaking audience.

These strategies can be used separately or in combination to effectively promote Korean culture on the Ukrainian-language Internet.

7. Conclusion

This study has provided important information and convincing conclusions on how to create effective translation and localization strategies to promote Korean culture on the Ukrainian-language Internet. The main results include the following:

1. Demand for Ukrainian-language content about Korean culture. The results of the survey of K-pop fans confirmed the significant interest of the Ukrainian-speaking audience in Korean culture and music. In particular, most of the respondents expressed a desire to have access to Ukrainian-language content on this topic.
2. Analysis of existing resources. The content analysis showed that existing Ukrainian-language web resources on Korean culture are limited and do not always meet the needs of the audience. Often there is no or insufficient content on relevant aspects of Korean culture.
3. Recommendations for creating a web resource. Based on the data obtained, recommendations for creating a Ukrainian-language web resource on Korean

culture were formulated. This includes the development of diverse and relevant content that meets the interests and needs of the target audience.

4. The effectiveness of the web resource. After the launch of the web resource, web analytics tools were used to measure its effectiveness. The data analysis showed an increase in traffic, increased audience engagement, and a positive reaction from users.

The study confirmed the importance of creating a Ukrainian-language web resource about Korean culture that would meet the needs and interests of the Ukrainian-speaking audience of K-pop fans and Korean culture fans. Such a resource can be a valuable tool for promoting and popularizing Korean culture in Ukraine and facilitating cultural exchange between the two countries.

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