

In Terms of Linguistic And Programming Importance of the E-Dictionary In Ogahi's Works

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Abstract Digital or electronic dictionaries are software tools that contribute significantly to the advancement of linguistics. Using natural language to process (NLP) software while developing an electronic dictionary of Ogahi's works. When developing NLP-based software, programming languages are critical. One of the most crucial issues is establishing an electronic dictionary of Ogahi's works using Python, an NLP-based computer language.

Keywords. *Ogahi's works, Electronic dictionaries, Uzbek language, programming languages, web resources, mobile resources, search engines, algorithms, words, and their databases.*

INTRODUCTION

During the era of advanced electronic technologies, research on electronic dictionaries began. As Uzbek linguistics continues to progress, so do tools that are critical to the development of ancient literature, art, and culture. These dictionaries and references act as physical embodiments of scientific knowledge. They serve as the foundation for scientific and technological data [1].

The popularity of electronic dictionaries has grown with the development of digital technologies. They have become a valuable tool for language enthusiasts, students, and professionals. These user-friendly digital resources provide quick access to a vast collection of vocabulary, definitions, and translations, making language study and information retrieval more efficient and easier.

An electronic dictionary is a digital or electronic version of a printed dictionary. It can be accessed through software or gadgets and provides definitions, translations, pronunciation guidance and various linguistic information in multiple languages.

METHODOLOGY

An electronic or digital dictionary is a software tool or web application that provides a user-friendly interface and fast search capabilities[2]. Electronic dictionaries are categorized based on their usage. Their major advantage is the incorporation of audiovisual teaching aids such as images, videos, and audio clips[3].

Creating e-dictionaries is preferable in the practice of lexicography. During the practice, words and verses in Ogahi's work are analyzed.

Creating an electronic dictionary entails lexicography, which is the practice of collecting, organizing, and displaying linguistic material in a digital setting. The following is a quick summary of the essential phases and factors in the lexicography process for developing an electronic dictionary.

1. Identify the purpose and purposeful auditory. Clear up this includes one or two languages, also concern these languages and confirm general or certain sphere

2. Create a comprehensive database of linguistic information including words, phrases, meanings, and translations from various sources. Such sources may encompass dictionaries, corpus language, the database of experts, and language-specific databases.
3. Install one system for dictionary writing. Dictionary entries typically include keywords, pronunciation instructions, parts of speech, definitions, example sentences, usage comments, and word origins in a consistent structure.
4. Create hierarchies when words have various meanings or interpretations and develop linkages between entries to direct visitors to pertinent concepts. This makes it easier for users to maintain the vocabulary.
5. To assist users in accurately pronouncing words give them instruction according to phonetic symbols or audio pronunciations
6. Compare and contrast the examples to show how the words used in context. This improves the user's knowledge of how words or phrases are used.
7. Special features such as language translation, synonyms, antonyms, word history and related terms are added to make the dictionary more informative and user-friendly.
8. Design user interface and search capabilities: An intuitive user interface is developed that simplifies word searches and offers quick access to information.

Developing an e-dictionary is a complex and ongoing task that requires meticulous attention, linguistic expertise, and a dedication to staying current with the continuously evolving language landscape. The aim is to provide precise and valuable language resources to users, making it an essential tool for language enthusiasts, learners, and professionals.

Electronic dictionaries allow users to quickly search for words or phrases. Many electronic dictionaries support multiple languages, which increases their demand even further. Each dictionary has unique qualities when it comes to creating electronic dictionaries.

In a study, Nesi attempted to classify electronic dictionaries and examine the significance of skills related to their use in enhancing second language comprehension[4].

Electronic dictionaries are highly popular among consumers, but the academic community lacks a standardized approach to build. Specifically, the process of developing electronic dictionaries with specific technical solutions is not characterized well. As a result, building an electronic dictionary using existing software bases has become a common practice. However, it is important to note that the prerequisites for generating a dictionary already exist.

ANALYZING LITERATURE

The creation of electronic dictionaries plays a significant role in software. Therefore, it is important that the software used in creating electronic dictionaries is both convenient and efficient, making it easy for users to navigate. Depending on the device or program used, electronic dictionaries can include additional features like language-based games and language-learning materials. It is necessary to analyze the literature to ensure that the software used in creating electronic dictionaries stands out from the rest in terms of convenience, efficiency, and ease of use.

Dictionaries used to be large books, but now they are smartphone apps that are more efficient and portable[5].

Electronic dictionary software uses a search engine to analyze words. However, according to Liu (2012), users often lack the necessary knowledge and abilities to complete *the lemmatization* procedure when formulating a search query in the language used in dictionaries, which leads to numerous errors[6]. It is important to note that during the lemmatization process, the word may face incorrect form input due to common mistakes that users make in communication-oriented situations. For example, when receiving information through verbal communication or watching audiovisual works in their native language without subtitles[7]. To ensure the software is user-friendly, its word base should be suggested according to the user's needs. In order to develop an electronic dictionary, Heid (2011) suggests that the software interface must allow users to access the dictionary's macrostructure through a search bar[8].

Using the Python programming language to construct software is the best technique to create an electronic dictionary of knowledge. Python is a one-of-a-kind programming language with a simple syntax and well-designed built-in libraries and functions for a wide range of tasks[9].

A collection of words and phrases utilized in Ogahi's works is developed and attached to the software using Python programming language. Java Android programming language is accepted as core software.

RESULT

We utilized Java programming language to design the mobile application for the electronic dictionary of knowledge works.

Java is the primary and official language for developing Android applications, and developers typically employ the Android Software Development Kit(SDK) tools for this purpose.

Developers who wish to create Android applications are recommended to use Java, the original and official language supported by Google. To write, compile, and execute Java code, Android developers must have the Java Development Kit (JDK) installed on their workstation. Object orientation is a programming paradigm that Java supports, allowing developers to organize their code using classes and objects with principles such as inheritance and polymorphism.

The Android SDK includes Java libraries that enable developers to build Android applications; this gives chance manufacturers to create Android applications. Android Studio is the official Integrated Development Environment (IDE), based on IntelliJ IDEA, and provides a stable environment for writing, debugging, testing, and deploying Java code for Android applications.

The Android API in Java and provides prebuilt classes and methods to make it easier to interact with the Android operating system and access device capabilities. User interface (UI) development is done by combining XML layout files with Java programming language code for control and logic.

To describe an application's behavior and interaction with the Android system, developers build Android application components such as activities, services, broadcast receivers, and content providers in Java. Java controls the runtime of Android applications, including events such as start, pause, resume, and shutdown. E-dictionary of Ogahi's works in Android mobile platforms is expressed as follows:



1st picture. The “main” panel of the mobile application

To expand functionality and simplify development, Java developers can use several Java programming language libraries in Android projects.

In turn, Ogahi's works are classified into various categories. Categories are the categorization of Ogahi's works. The works are divided into the following categories:

1. G‘azallar
2. Qit‘alar
3. Ruboiylar
4. Tuyuqlar
5. Masnaviylar

The mobile applications of categories of Ogahi’s work have become an essential part of modern life, influencing various aspects of our daily routine. These programs can perform a wide range of tasks.

CONCLUSION.

The modern internet networks have enabled the expansion of language richness in each nation, which can serve as the foundation for the future growth of artificial intelligence-based software. Electronic dictionaries have made it easier to overcome linguistic challenges when learning a language.

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