

Design of Community-Based Regional Language Dictionary Platforms in Indonesia with the Autocomplete Method

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Abstract---The article reveals the possibilities of restorative justice in juvenile criminal cases. A brief survey of model juvenile courts in the Russian Federation is also made. The distinctive feature of these courts is based on the active use of elements of restorative justice, in particular mediation procedures aimed at concluding a mutually beneficial agreement between the parties (i.e the victim and the juvenile offender). As a result of studying the criminal procedure legislation of some states of America, it was concluded that the provisions regulating the possibility of participation in restorative programs should be adopted and the restorative procedures should be regulated in the Russian criminal process.

Keywords---Mediation, Restorative Justice, Juvenile Technologies, Restorative Programs.

I. Introduction

Language is a tool for communication or conveying information with fellow human beings in the form of human speech. Language can be a word or a sentence that has meaning. Language is the important factor for interacting with others, although it can communicate in other ways but the role of language is very important in community life. Languages spoken in an area can be different from other regions, each region can make their own language standards to communicate in their community, within the scope of the country commonly referred to as National language. In addition to the national language used in a country, there are also languages in small coupons in an area called the regional language.

Indonesia is an archipelago that has a variety of different ethnic groups on each island, even on the same island there are various tribes. The difference affects also the language used so that Indonesia has many regional languages, and even ranks the two largest regional languages in the world. On the Language of the world Ethnologist website in 2018 (Tondo, Journal of Society & Culture, Volume 11 2009), the number of regional languages in Indonesia is 719 languages. Of these, 707 languages are still being used and 12 languages are extinct. Of the 707 languages used 272 were extinct and 76 were almost extinct. Other reports from regional language data (Tondo, Jurnal Masyarakat & Budaya, Volume 11 2009) number of regional languages that have been identified and validated are 652 languages from 2,452 observation areas and if based on information the distribution of regional languages per province, regional languages Indonesia numbered 733 and several regions were still not identified. From the regional languages there are 18 in the safe category, 17 Stable but threatened with extinction, 2 languages experiencing setbacks, 18 languages endangered, 4 Critical languages and 13 languages extinct.

Based on the data of regional languages in Indonesia that experience Critical and extinction quite large can be caused by a number of factors, one of which is increasingly rare people who know and use their respective regional languages. The lack of media that provides information on regional languages is one of the causes of the erosion of the language. To overcome this, a media that is easily accessible for all people is needed to disseminate information about the language of the area.

In the current internet era, where all information can be accessed anytime and anywhere without limitation of time and place, it can be a solution in the preservation of regional languages in Indonesia. Internet users in Indonesia in 2017 were 143.26 million (WE ARE SOCIAL LTD 2017) or 54.68% of the total population of Indonesia. Seeing the large number of internet users in Indonesia, the dissemination of information for regional languages is very possible so that people can find out about regional languages more quickly. One internet service that is very widely used in Indonesia is social media. Based on the results of the wearesocial.com survey (WE ARE SOCIAL LTD

2017) in 2017 active social media users in Indonesia amounted to 130 million or 50% of the total population of Indonesia. From the survey's conclusion, it can be concluded that around 90% of internet users in Indonesia are active social media users, where Indonesians are very happy to share things on the internet through social media.

Active and massive use of social media is one of the cornerstones that effectively build platinum with community approaches to preserve regional languages in Indonesia. Community approach like social media can be used by the community to access information and provide information to the community. With platform like this, there is no need to worry about making very large numbers of regional language data at the outset. Regional language data sources come from dictionary users provided, they exchange information about the regional languages they know, then the data is stored to be a reference in the translation of regional language dictionaries. Data entered by the user is verified by other users before being used as a reference in the translator.

In the process of searching the language, the Autocomplete method is used to shorten the search time for words when doing translations, and provide references to words that are similar or similar to the words you want to translate contained in the database (Sudarja, Hermanto and Rachmansyah 2013), so the user does not have difficulty in finding the word that he wants to translate.

To design a platform for regional language dictionaries in Indonesia the author uses a community design method where users can add translations to the application so that the data that the user sees is data from the users themselves. Users can give a rating (rating) on the translation of other users so that the correct translation results will be ranked top. For word sources in Indonesian, the initial data for translation is taken from the KBBI dictionary published in 2016 so users can easily interpret words into other regional languages.

The objectives of this research are as follows:

1. Designing a Platform for Regional Language Dictionaries in Indonesia
2. Preserving Regional Languages in Indonesia
3. Disseminating information about regional languages in Indonesia

II. Related Works/Literature Review

Dictionary

According to (KBBI 2016) the dictionary is a reference book containing words and expressions, usually arranged in alphabet following a description of the meaning, usage, or translation, a book containing aggregated terms or names alphabetically as well as explanations of meaning and application.

Translator

According to (Dr. Muhammad Hasyim 2015) Translation activities, basically, are things that are often done and found in everyday life, both in the family and in everyday life. We often divert a message, with the aim of clarifying the message meant by someone as a speaker to another person, as receiving, with the aim of the recipient being able to understand the intent of the speaker. For example, our family comes from an area visiting our home in a city. Then, one family member, for example the child explains an electronic device such as Tab-let, which is totally alien to them, so that they are confused about what the child says. Then, we re-explain the child's intent, which makes them understand the product described. Likewise, on the contrary, a family that came from a village spoke to our children by using regional languages, for example they praised our children. The child did not understand what was said, then, we transferred the message into a language that was understood by the child, for example Indonesian language, which then made the child understand. That is what is called translation activity. Translation activities as communicative actions were also found through the media. For example television media. The television program, in the form of as-ing (Hollywood) film presented by various private television stations is also one of the translation activities in the family. Of course, stories from foreign-language films (English) that were broadcast through television media were translated into Indonesian. The translation of the film is done by methods, namely dubbing and text methods. First is the original sound of the player removed and filled with sound using Indonesian. Second, write the translation text at the bottom of the glass screen.

The translation activities of film show programs are communicative acts that occur in the family for those who do not understand the use of foreign languages (English). Thus, translation is basically an activity to take away the meaning (meaning) based on the context (message) from the first speaker, which is referred to as the sender to the second speaker, called the recipient, which makes effective communication occur. So, the essence of the translation activity is contextually meaning. And the main purpose of translation activities is how to make other people as recipients (readers, viewers, etc.) make sense. Someone works by diverting meaning according to the context of the source language mastered by the target language, for example mother tongue, so that is called the translator

Language

According to (Ramdhiani n.d.) Language Is one of the communication tools used by humans, language is also an important link between human relations. Therefore, language can be said to be mandatory and very important as a condition for communication between fellow members. Understanding language literally is a means used by every living creature (especially humans) to communicate and interact socially with other living things.

For example we as humans who have language that is used everyday to communicate with people around us. A good type of language certainly develops on one system, and in it there are rules that must be obeyed by each user. Through language, the message that is delivered and the message received will be easier.

In general, language is a system with symbols that are organized and agreed upon in general, language is also a learning outcome that is used to present various experiences within a community. Language has become the main tool in channeling beliefs, values, and norms including art and religion contained in it. Language can also be a tool for every human being to think logically.

Language is also closely related to culture and mindset in a society, so language is also related to the way everyone thinks that is realized through the language itself. Through this language, inheritance of a culture from generation to generation, for example, a painter from Bali will guide his students how to paint techniques that are good in Balinese.

Likewise with the Kiyai at a pesantren or religious school that teaches their students to recite using Arabic. As for other religious lessons the kiyai can use Indonesian or the local language they usually use, it shows in the language of the inheritance of language culture, religion and art as well.

Autocomplete

According to (Sudarja, et al. 2013) the auto complete algorithm is a search algorithm that is owned by Google. This algorithm is also embedded in Android as a word search method. The course of this algorithm is as follows. Initially we compare the first character of the string to the first character of the text. If the same, the system will provide a list of text that is in the database.

III. Method

Autocomplete

In designing this application the author uses the autocomplete method which is a method in searching for translation data that will be carried out by the system, in the autocomplete search method is done by dividing two words separated by spaces in the word then the system will search based on the words that inside it. The following is a description of the flowchart in the autocomplete method:

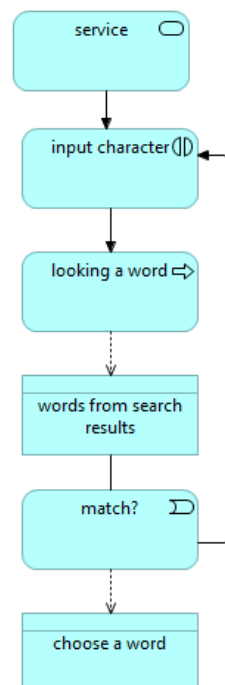


Fig. 1. Autocomplete Process

In Figure 1, describes the process of the autocomplete method, where the application will serve the word search by inputting the desired word, then the application will find the word in question and if it matches it will appear

IV. Results

List of Language

In this research the writing has recorded about 4 languages. Although there are many regional languages found in Indonesia, but some languages that can be used in research require data from people who use the language or people who know the language. Therefore, the writer only uses 4 common languages that are used by people around the author that I use to test the application. The list of languages is:

1. Indonesian
2. Sundanese language
3. Javanese language
4. Betawi language

Glossary

The 4 languages that I use in this study are 54,810 (five four thousand eight hundred and ten words) that have been written by the author and several other users who have tried using this application. The following is a list of languages and the number of words contained in the system before the author tests the prospective user:

Table 1. List of languages and words

No.	Language	Total
1.	Indonesian	35.970
2.	Sundanese language	18.836
3.	Javanese language	1
4.	Betawi language	3

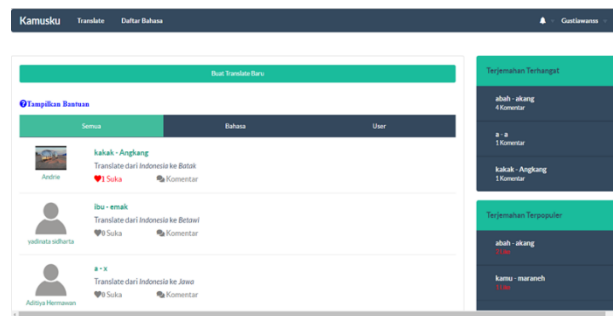


Fig 2. Dashboard

The image display above is a dashboard page from the dictionary application of Regional Languages, where users can directly search for the word they want.

1. Discussion

Black box testing is done by testing the functionality of an application or software. The purpose of this test is to find errors in the application, including:

1. Incorrect or missing functions
2. Interface errors, which can cause users to be confused
3. Error in data structure, which can produce unwanted output

Performance errors, which can cause very long processes or infinite loops (infinite loops), due to lack of optimization.

Table 2. Blackbox Testing Tables

Scene	Scenario	Expected results	Conclusion
home	Not yet logged in and opened the home page menu.	Displays all the translations in the application that have been contributed by other users.	valid
Login user	Not yet logged in and opened the login page, then entered the registered email and password and pressed the login button	The account is registered as an account that has been logged in according to the email that has been entered, and will open things-safe home	valid
	Not yet logged in and opened the login page, then entered the email and password that was not registered and pressed the login button	An error will appear which informs the e-mail that has not been registered or the password does not match	valid
	Not yet logged in and opened the login page, then entered the email and password that was registered and did not activate the account and pressed the login button	Will be registered as an account that is logged in but the application will display a warning that the user has not activated	valid
Profile	Already logged in, then click one of the other username.	Displays an account data page according to the user's profile and does not display an edit profile button if it does not open the user profile.	valid
	Already logged in, then click the profile button on the top right.	Displays the account data page according to the profile chosen by the user and displays the profile edit button	
List of languages	Open things-safe list of languages via the right link at the top of the application.	The system lists the list of languages in the system in the form of tables.	valid
	Open things-safe list of languages via the right link at the top of the application. After logging in	The system delivers a list of languages that are in the system in the form of tables, as well as the language follow button.	valid
Daftar kata	Membukahalaman daftar bahasalalumenekantombol daftar kata.	Menampilkan daftar kata yang sesuaidenganbahasa yang penggunapilih.	valid
	Membukahalaman daftar bahasalalumenekantombol daftar kata setelahmelakukan login.	Menampilkan daftar kata yang sesuaidenganbahasa yang penggunapilih dan sistemmenampilcantomboltambahterjemahanbaru.	valid
Terjemahan (translate)	Open things safely translate then choose the language of origin, and the destination language. Then fill in the textbox contents from the word from the original language.	The system will display a list of words that are similar or similar to the fields of the textbox from according to the language the user has chosen	valid
	Open the translate page and then choose the	The system will display the translation results of the word and the results of the translation of the	valid

	language of origin, and the destination language. Then fill in the textbox contents from the word from the original language, then press the translate button	word the user entered in the textbox from, then the system will display a list of similar translations below the results of the translation.	
	Open things-safe translate then press the more button	The system will display a list of languages in the capital that users can choose from.	valid
Create new ones	After logging in, the user presses the button for the new translation on the main page, then performs the input in accordance with the existing column, and press tom-bol submit.	The system will save the new translation into the system	valid
Register	Before login hit the register tom-up on the top right, then not fill anything.	The system will issue a warning that name, email, password, pass-word_confirmation are needed	valid
	Before logging in, press the register button in the top right, then fill in the name, email, and password fields. Then fill in the pass-word_confirmation field different from the password entry.	The system will issue a warning that the password and pass-word_confirmation entries must be the same	valid
	Before logging in, press the register button in the top right, then fill in the name, email, password fields. Then fill in the password_confirmation field with the password entry. But the e-mail entries are registered e-mails from the application.	The system will issue a warning that the e-mail fields have been registered	valid
	Before logging in, press the register button which can be found in the top right, then fill in the name, email, and password fields. Then fill in the pass-word_confirmation field with the password entry.	The system will create a new account according to the data sent by the user with no asset status, then the system will re-email the user-registered email containing the link address for account activation.	valid
Account activation	The user registers a new account or the user presses the button to resend the account activation code, then the user will open an email and click the activation button found in the email.	The system will change the status of the user account from the assets to assets.	valid
	The user presses the resend activation code or	The system sends an email to the user's e-mail containing the account activation button.	valid

	the user registers a new account.		
Login admin	Enter by adding / admin at the end of the url, then displaying the login page, and entering the email data and password of ordinary users (not admin).	The system will deny user access.	valid
	Enter by adding / admin at the end of the url, then displaying the login page, and entering the email data and admin password.	The system will check the data and if the email and password are registered as admin, the system will open the home page in the admin.	valid
Menu Roles	Select the roles menu, then the system will display the roles list.	The roles list that is displayed matches the list contained in the database	valid
	Press the "make new" button on the roles menu, then the system will point to the page for the new role. then fill in the roles and display name and select the permissions on the system and press the submit button	The system will display a list of permissions contained in the system and after the user enters data, the system will store user data into the tabase and the program will direct to the index roles page..	valid
users	Open the index users page	The system will display a list of registered users in the system both admin and normal_user.	valid
	Open the user index page and then press the new button	The system will redirect to the user page, then fill in the fields related to the new account you want to create.	valid
Language menu	Open language things	The system will display a list of languages contained in the system.	valid
	Open language pages and press the new button and fill in the fields. Then press the submit button	The system will display language-related entries such as the name of the language and the region or region of origin of the language. Then after the user fills up, the system will save the data into the database.	valid
Word menu	Open the Word page	The system will display lists of words contained in the system in both Indonesian and other languages.	valid
	Open the word page and press the new button, then fill in the fields and press the submit button.	The system will display entries according to database needs such as language, words, example sentences, and others. Then the system will store the data into the database.	valid
Translation menu	Open the Translation page	The system will display translated pages and display translation data contained in the database	valid
	Open the translation section and press the delete key for a particular translation.	Sistemakanmenghapusasilterjemahantersebutdari database.	valid
Reports page	Open the reports page	The system will display report data contained in the database that the user has entered in the data	valid

V. Conclusions

After completing various tests according to the purpose of this study, the authors draw conclusions as follows:

1. Applications can help preserve the language of the nation in Indonesia.
2. Applications can help disseminate information about regional languages in Indonesia.
3. The application can become a platform for regional language dictionaries in Indonesia.
4. The application is able to become a reference for learning local languages in Indonesia

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