Implementing The Multimodal Communication Modes On Telegram Bot Elia

I Gusti Ngurah Adi Rajistha*, Dewa Ayu Kadek Claria
{rajistha@warmadewa.ac.id, claria@warmadewa.ac.id}

Universitas Warmadewa, Denpasar, Bali, Indonesia

Abstract. Information related to lectures in a study program must be conveyed clearly and carried out regularly. Even though the information has been delivered routinely and centrally, students sometimes miss the announcement. This condition causes the need for a more effective method of accommodating FAQs (frequently asked questions) so that students can find information related to lectures, proposal exams, thesis exams, and other information related to study programs. This study aims to implement four essential components in the multimodal communication model in conveying information in the English Literature Study Program, Faculty of Letters, Universitas Warmadewa in providing fast and accurate information. This research is field research located in the English Literature Study Program, Faculty of Letters, University of Warmadewa. The data sources are documents and policies in the English Literature Study Program. Data were collected from academic guidelines, proposal & thesis guidebooks, academic calendars, curriculum, and other documents that support the educational process at the English Literature Study Program. FAQs were collected through interviews with the Head of the English Literature Study Program. This study shows the use of textual modes organized in categories to connect commands and information in the database.

Keywords: multimodal communication, telegram bot, verbal mode, visual mode

1. Introduction

The English Literature Study Program, Faculty of Letters, Universitas Warmadewa uses the Telegram application as an application for sending messages and delivering information to students centrally because this application can accommodate all English Literature students in one group or one channel. English literature study program also utilizes Google Drive as a cloud that holds other important information. However, this is also not effective enough in conveying information.

To create good communication between study programs and students, this study aims to build a Telegram Bot considering all components of the multimodal communication model. Based on the multimodal communication theory, communication occurs based on the four basic components, including (1) rhetor, which is the maker of messages/information, (2) design, which is the center of multimodal communication which includes, genre, mode, discourse, and the medium used, (3) ground, which is the message. or information presented through the design, and (4) an interpreter, which is someone who reads or sees the form of information presented [1].

The implementation formed through this research is the selection of Telegram Bot as the genre to convey information about the study program. In addition, English is used as the

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language of the Telegram Bot. The use of English instead of the Indonesian language will help students understand some of the concepts or terminology commonly used in education so that this communication will not only help the study program but also familiarize students with English communication. Based on the research, effective communication can improve student learning outcomes [2]. This finding is to support the implementation of effective communication through Telegram Bot to convey information as well as learn English.

Torto has researched the descriptive elements in English used in the text of advertisements in newspapers in Ghana [3]. The results showed that the use of descriptions in the ad text was effective in giving an impression to the readers of the ad text. Lin, Wang, and Hsieh investigated the effect of brand originality and foreign language groups on the effectiveness of transcoded advertising texts for monolingual consumers [4]. This study reveals that ads that are decoded in two languages cannot be applied to monolingual speakers. Makarova et al studied the verbal component of advertising and the impact of using language as part of an advertisement [5]. Huang also conducts research in the field of language in advertising [6]. His research emphasizes the use of hyperbole visually in advertising.

In the case of the language uses currently, there are some related researches. Lee in his writing explains that there are three characteristics of labeling (tags), namely (1) formed by the user, (2) can be a source of the meaning maker, and (3) conventional [7]. Zappavigna and Martin stated that social metadata is an important dimension in communication in social media [8]. Scott also analyzes hashtags, especially spoken hashtags from the point of view of pragmatic functions [9]. Michelson and Valencia analyzed the multimodal social-semiotic on institutional discourse from the promotional website of Arcadia University [10]. Dash, Patnaik, and Suar examined advertising on TV by applying the multimodal discourse analysis proposed by Kress and Leeuwen [11].

This study focuses on designing a Telegram Bot and applying the components of multimodal communication to improve the information transfer from the study program to students. The Bot is also used as a medium for transferring knowledge and new vocabulary related to the study program. The Bot can respond to the commands in the form of words, phrases, or sentences. The keywords must be included in the commands given to get the responses.

2. Method

This research is field research located in the English Literature Study Program, Faculty of Letters, Universitas Warmadewa. The data sources are documents and policies in the English Literature Study Program. Data were collected from academic guidelines, proposal & thesis guidebooks, academic calendars, curriculum, and other documents that support the education process in the English Literature Study Program, Faculty of Letters, Universitas Warmadewa. FAQs were collected through interviews with the Head of the English Literature Study Program. All data are classified according to the appropriate mode.

The data that have been collected and classified were inventoried and identified as ground according to the multimodal communication theory by Kress (2010). Through the theory of Multimodality: A Social-Semiotics, this research analyzes the data by considering the four main components of Kress' theory of multimodal communication. The first thing is to determine the rhetor. The second stage is to build the appropriate mode used (design stage). The third stage is to attach the information or messages conveyed through the modes applied on the Telegram Bot (ground stage). The last stage is to introduce Telegram Bot to students

(interpreters). This research takes an inventory of FAQs and creates a multimodal communication model in the form of a Telegram Bot.

3. Result and Discussion

3.1 Result

This study presents the implementation of multimodal communication modes on the Telegram Bot. The four basic components in the multimodal communication model included in the analysis are rhetor, design, ground, and interpreter. The multimodal communication modes are implemented and adapted to the needs of the study program. These modes become parts that support each other in the communication that is formed. By paying attention to the interpreter as a target in communication, the rhetor conveys the ground that is presented in a certain appropriate design that can have a positive impact on communication. By utilizing several modes of design, the rhetor tries to convey ideology/concepts/information to the interpreter. The use of modes is determined by the interpreter targeted in the communication.

3.2 Discussion

3.2.1 Rhetor

Telegram bots are widely used to convey the same information repeatedly and automatically. The advantages of this bot are very helpful for bot owners and bot users in conveying the same information repeatedly. The bot can also continue to be developed by adding a Q&A database according to the needs. Thus, bots can greatly assist study programs in delivering information that is consistently and continuously repeated, so it is also useful for students who are looking for the same information every semester. In other words, this bot can function as a search engine for students to find information on study programs faster than using conventional methods.

The formation of the Telegram bot, of course, began with the planning carried out by rhetors. As the first part of a multimodal communication model, rhetors are involved from the very beginning of bot creation planning, Q&A collection, and bot management. In this study, rhetors are the parties who plan and create the Telegram bot. In other words, rhetors can also be referred to as macro-rhetors because the parties involved in planning and making the bot include the research team, the English Literature Study Program, and developers.

The research team's role is to collect documents related to the study program including questions that are often asked by students. The official documents are uploaded on the updated study program website so that they can be accessed online. In addition to official documents, several documents are also uploaded to Google Drive and are linked to the Telegram bot to make the search process easier. The research team also designed the way the information was delivered to make it more accessible. At this stage, the research team as part of the macro-rhetor also designed the process and designed the display to support the information conveyed.

The study program also has a very important role in the planning and development of this bot. The study program provides documents in the form of *.pdf files so that they can be synchronized with the study program website. The study program, through the head of the study program, also informed the questions that are often asked by students. Developers as part of the macro-rhetor have the task of designing bots that have been adapted to the needs of the study program. The bot developed is an HTML-based bot that runs online.

Macro-rhetor collaborated on designing and developing Telegram Bot. However, it is the research team and study program that owns the rights to this bot. In other words, the research team and study program are responsible for the content, form, and purpose of developing this bot. Furthermore, the bot that was developed was named ELIA (English Literature Information Assistant) which will be a supporting system in delivering information related to study programs to students.

3.2.2 Design

Design can be expressed as a pattern or composition formed by a rhetor to convey an ideology or message/information. ELIA is designed to facilitate the delivery of information. Taking into account various conditions, such as readability, speed of finding information, suitability of search results, how to find information and the form of information conveyed. Design can include three important parts, namely genre, mode, and discourse.

The first part of the design is the genre. Genre is a medium used to convey information. In this study, the Telegram bot is the genre chosen to increase the effectiveness of delivering information from the study program to students. This genre was chosen for several reasons.

The first reason is that it adapts to the information channels owned by the English Literature Study Program. The study program already has a telegram channel called the ELite Study Program as the first medium for conveying information. In addition, information is also conveyed through the official website of the English Literature Study Program at www.elite.sastraunwar.ac.id, and the study program also uses Google Drive as a cloud to store data associated with ELIA.

The second reason is that this Telegram bot can respond to student questions or statements automatically and quickly. ELIA which functions as an assistant in conveying information is designed to respond to orders/questions from students in real-time according to its database. This ELIA is uploaded to www.sastraunwar.ac.id to be able to respond to commands given without waiting for manual activation so that ELIA performance is considered more effective than assigning staff to provide information. However, ELIA has not been able to handle complex problems such as course conversion and advising.

The third reason is low maintenance costs and only using Google Drive and the study program website as additional sources of information. All information related to the study program is also uploaded on the website and Google Drive so that it is easy to find and archive. In addition, it makes bot management easier by reducing database changes to bots.

The last reason is the very wide reach because Telegram has been widely used. In other words, any Telegram user can interact with ELIA as long as they know the ELIA username, @eliteunwar_bot. Through this username, all students of the English Literature Study Program can interact directly with ELIA.

The second part of the design is the mode. Mode is also known as the way that the rhetor uses it to convey information or messages. The use of the bot at this stage has emphasized the effectiveness and efficiency of obtaining information related to the study program. In other words, the mode applied to ELIA is more emphasized in the textual mode. Even so, the visual mode is still used to give ELIA a distinctive feature. In this case, ELIA is designed to use English to communicate with students, so students must use English to obtain information from ELIA. On the other hand, ELIA does not have an Indonesian language database because it aims to familiarize students with reading and understanding English words, phrases, sentences, and texts.

Telegram Bot consists of six parts as described in BotFather, Telegram's official bot that helps users to design their bots. The parts of the bot include name, about, description, description picture, bot picture, and commands. Four of the six parts of this bot are built using text including name, about, description, and commands. In this case, only two parts use visual mode.

In the first part, namely the name, Rhetor uses ELIA based on the initialization of the English Literature Information Assistant which is the basic concept of developing this bot. The concept and ideology are embedded in the name used for this bot. In addition, the naming is also motivated by the name of the website of the English Literature Study Program, Faculty of Letters, Universitas Warmadewa, elite.sastraunwar.ac.id.

The second part, about, is filled with the official website of the English Literature Study Program, Faculty of Letters, Universitas Warmadewa, namely www.elite.sastraunwar.ac.id. Thus, explicitly ELIA is closely related to the English Literature Study Program, Faculty of Letters, Universitas Warmadewa. This section also provides information to the interpreter that ELIA is an official support system owned by the study program.

The third part is a description of ELIA. This section appears in the chat background when it is first accessed. This section contains information about ELIA and how to initiate communication with ELIA. Through the information in this description, the interpreter can find out the function and what the ELIA is for. The section discussed next is the commands. This section is formed through HTML codes that are integrated with the official website domain of the Faculty of Letters, Universitas Warmadewa. In this case, the commands are entered not through BotFather but through phpMyAdmin to make it easier to create categories and responses given by ELIA.

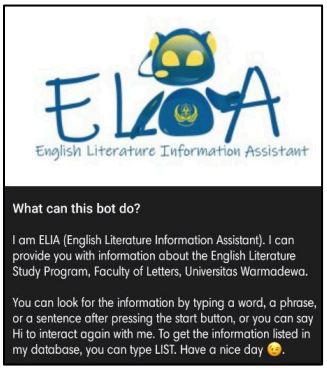

Figure 1. Description and Description picture

After understanding the structure of Telegram Bot which has two important parts, namely the textual part and the visual part, Rhetor began to develop the textual part by using the textual mode. Textual mode is the use of text to support the delivery of information through ELIA. Textual mode is used in every part of ELIA. Text is used in the section about bots, bot descriptions, and bot responses. The textual mode used includes the use of words, phrases, and sentences in English. In addition to using text, ELIA is also designed to be able to provide hyperlinks to direct the interpreter to more complete information that has been provided on the website and Google Drive.

There are several reasons for using text which is more dominant than visual. The first reason is that ELIA is designed as a bot that can provide the information quickly, so the use of text is the most appropriate. Through the use of text, the information provided is easier to

understand because students can read the text repeatedly to improve their understanding of the information conveyed. In addition, through the text used, students can build their linguistic intuition. Thus, students are expected to be more sensitive to the phenomena of using the English language.

The second reason is to provide a new vocabulary for students related to the educational process. In addition, texts are also used to improve students' ability to remember vocabulary related to the information they want to find. Furthermore, it is hoped that it will gradually build a student literacy culture.

In building a more structured communication, ELIA is designed to be able to categorize the information submitted. The ELIA responses can be categorized into two, namely responses in dynamic conditions and responses in static conditions. The responses in the dynamic condition are in the form of a database and have a Menu ID. The responses in the dynamic conditions include related responses:

1) *Program*
2) *Academic Info*
3) *Bachelor Thesis*
4) *Publications*
5) *Staff*

In addition to the five response categories, there is also a zero (0) category which is used to store responses that are not related to the five categories above. The zero category is used to build ELIA's personality in the form of responses when the interpreter conveys a greeting and thanks, responds to commands/questions, gives information, and says goodbye. In addition to the responses in the dynamic conditions, ELIA also has responses in the static conditions. These responses are not as much as the responses in dynamic conditions. These responses exist because of certain conditions, for example, the condition when ELIA was first accessed by pressing the start button. The responses in the static condition are embedded in the ELIA HTML coding.

The response in the static condition is already embedded in the ELIA coding so to modify it, developer assistance is needed. On the other hand, responses in the dynamic conditions can be added, modified, and deleted through the bot panel that has been prepared at www.sastraunwar.ac.id. Here are some examples of responses in static conditions.

1) Hi <**name of interpreter**>, I am ELIA. Need any help? 😊
   Please choose one of the information on the keyboard, or type your request.
2) Please wait. I'm looking for your request 🦹
3) I'm not sure about the information that you want to find, but I have suggestion that may relate to it.
4) The following is the information about <information searched>.
5) Ups sorry 😥 …
   I don't have any information about <*information searched*>.

These responses are set up to respond by default to commands given by the interpreter. Data (1) is a response when the interpreter interacts with ELIA for the first time and is a response when the interpreter starts a conversation by saying the greeting 'Hi' to ELIA. This response is designed to also recognize the name of the interpreter contacting ELIA. In this response, the font style is also applied to attract the interpreter's attention, such as names displayed in bold and important information displayed in italics. Thus, important information to be conveyed can be seen more clearly because it is different from regular letters. In addition, in this response, the emoticon is also used to give the impression that ELIA is a friendly and expressive bot in responding to instructions from students.

Data (2) is the response given by ELIA when the interpreter gives instructions in the form of words, phrases, and sentences. This response serves as a transition when ELIA is tracking information in the database. The second response given is the result of the information sought by the interpreter whether it is found or not. If the information sought by the interpreter is contained in the ELIA database, ELIA will respond by answering as shown in data (3), followed by suggestions related to the information sought in the form of an instruction board. ELIA can also respond with statements such as in data (4) if the information sought matches the information available in the database. In addition, ELIA can also respond if the information provided is not available in the database. The use of emoticons in data (2) and (5) also adds to the ELIA expression in response to the interpreter's instructions.

In addition to responses in static conditions, there are also responses in dynamic conditions. These responses are available in the database. The database is categorized based on Menu ID which consists of Menu ID, Key, ALT Key, Description, and Link.

Menu ID is the identity of a created category which is symbolized by using numbers starting from 0, 1, 2, 3, 4, 5, and so on. This ID menu is the basis for categorizing keywords used to display the information interpreters are looking for. ALT keys are also known as alternative keywords which can be used as an alternative to primary keyword searched. In this case, Menu ID 0 cannot have ALT Key. Description and Link is the part where information is uploaded in the form of text and hyperlinks.

The last part of the design is the discourse. Discourse embedded in ELIA can be seen from the name ELIA which is the initialization process of the English Literature Information Assistant. The formation of discourse is also embedded in about and description which clearly state the type of information that can be provided by ELIA. Furthermore, the commands used to obtain responses from ELIA are also related to the following information, namely academic information, information about programs in study program, information about the thesis, information about staff and teaching staff, and information about publications. Thus, the discourse that is built is educational information while studying at the English Literature Study Program, Faculty of Letters, Universitas Warmadewa.

3.2.3 Ground

The ground is the information/ideology/message conveyed by the rhetor to the interpreter. Methods of delivering information by rhetors can be classified into two, namely implicit and explicit. Implicitly, Rhetor said that information about the English Literature Study Program, Faculty of Letters, Universitas Warmadewa can be obtained faster by giving orders to ELIA compared to directly asking the study program manager personally. ELIA can respond instantly in no more than 10 seconds to commands or questions given to her. The study program managers certainly cannot provide such a fast response to students if they are served personally.

Explicitly, the rhetor conveys some information to the interpreter. The first information is that ELIA is the official supporting system for the English Literature Study Program, Faculty of Letters, Universitas Warmadewa, which assists the study program managers in providing reliable information to interpreters. The second information is that ELIA knows five categories of information about study programs which include academic information, information about programs owned by study program, information about the thesis and its mechanisms, information about academic staff and lecturers, and information about publications owned by the study program. This category appears the first time ELIA is accessed and when the interpreter greets it with a greeting.

3.2.4 Interpreter

Interpreters are users or potential users who access ELIA through the username @eliteunwar_bot. This multimodal communication model is aimed at interpreters. Rhetor who has ground in the form of ideology/information/message composes the mode to convey through the design which is then submitted to the interpreter. The interpreter in this case is students of the English Literature Study Program, Faculty of Letters, Universitas Warmadewa starting from the 2019 batch, 2020, 2021, and 2022. This multimodal communication model will be successful if the ground built by the rhetor through design can be conveyed to the interpreter.

4. Conclusion

Based on the research conducted, conclusions can be drawn about the multimodal communication modes applied to the Telegram bot. The communication model that is applied emphasizes more on design, especially the textual mode in building communication. To facilitate communication, related information is classified into five categories, including information on academics, programs, theses, publications, and staff. Communication between the rhetor and the interpreter can be well-formed through a design that is tailored to the bot. In general, the ground can be conveyed well through the selected mode. The textual mode is the best choice in delivering information, and the visual mode is to visualize ELIA to interpreters.

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