



PENGUKUHAN GURU BESAR TETAP

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Orasi Ilmiah:

"The Affordances of Technology in the Practice and Study of Applied Linguistics"

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I will present my scientific speech in the following order:

- 1. Introduction: Definition of Applied Linguistics
- 2. The importance of applied linguistics in the era of technology
- 3. The impact of technology in language teaching
- 4. The impact of technology in language learning
- 5. The role of technology in language related research
- 6. The role of University in advancing the practice and study of applied linguistics

AFFORDANCES OF TECHNOLOGY IN THE STUDY AND PRACTICE OF

APPLIED LINGUISTICS

Clara Herlina Karjo

1. Introduction

Roger Bacon, an English philosopher, once said, "The conquest of learning is achieved through the knowledge of languages." Moreover, he stated that "Knowledge of languages is the doorway to wisdom". These two statements emphasize the importance of learning languages. Language opens the door to the unknown, language facilitates human communication and language enables us to learn anything and achieve anything.

Human language is studied scientifically in the field which is called **linguistics**. It is called a scientific study because it entails a comprehensive, systematic, objective, and precise analysis of all aspects of language. Linguistics can be categorized into general linguistic or **theoretical linguistic** which deals with the traditional areas corresponding to phenomena found in human linguistic systems. These include **phonetics** or the study of the production of speech sound, **morphology** which deals with the structuring of words, **syntax** which covers the rules governing the structure of sentences, **semantics** which studies the meaning of words, and **pragmatics** which discusses how context contributes to meaning. Thus, linguistic study covers a broad range of aspects of language from the production to meaning of speech.

Theoretical linguistic become the basis for the emergence of the second category of linguistic study, that is **applied linguistics**. It is called applied as its main purpose is to address practical issues of language in the real world. Applied linguistics seek to utilise the scientific findings of the study of language for practical purposes, such as developing language teaching and learning method.

Applied linguistics is defined as the interdisciplinary field that aims to seek out, identify, and provide solutions to real life problems that result from language related causes (Nordquist, 2019). Similarly, Brumfit (1995) affirms that applied linguistic deals with the theoretical and empirical investigation of real-world problems in which language is a central issue. The role of applied linguistic as a mediation between theory and practice is also emphasized by

(Simpson, 2011) who stated that applied linguistic has a role to make insights drawn from areas of language study which is relevant to the decision-making in the real world. Thus, in short, we can say that applied linguistic is a field of study that can bridge the gap between linguistic theory and the language related problems in the real world.

There is a plethora of real-world language related issues. Consequently, the study of applied linguistic also encompasses a wide variety of fields, among others: *language acquisition, language teaching, literacy, literary studies, gender studies, speech therapy, discourse analysis, professional communication, media studies, translation studies, lexicography, and forensic linguistics*. Applied linguistic also adopt perspectives on language in use spanning from *critical discourse analysis, linguistic ethnography, sociolinguistics, literacy, cognitive linguistics, corpus linguistic, and generative linguistic* among others. It is, therefore, almost impossible for an applied linguist to be an expert on all fields within applied linguistic scope. An applied linguistic practitioner may choose to specialize in one or more fields of study, for example in language teaching, translation studies or discourse analysis. However, it is also possible for an applied linguist to explore as many fields as they wish.

2. The use of technology in the practice of applied linguistics

In today's era, where every aspect of our life is surrounded and depending on technology, we cannot avoid implementing technology in the practice of applied linguistics. One of the examples is the use of technology in the field of language teaching. Although computer technology has been used in language teaching for decades, new emerging technology has to be implemented especially during the last Covid-19 pandemics, where all educational institutions were abruptly forced to conduct e-learning to replace face-to-face classrooms which were impossible to conduct at that time. In an instant, we had to learn how to use video conferencing tools, to communicate through computer, and to learn new teaching technology that would make online learning as engaging as traditional learning. In short, we should embrace what we have not known before, we should face the fear of the uncertainty to keep our education going and keep our students learning.

For some people, engaging with new technology might be dreading. Particularly for those applied linguistic practitioners who only focus on teaching and studying language related issues in conventional way. Technology is seen as something frightening and is not compatible with nature of linguistic study. As a matter of fact, the use of technology cannot be avoided in in all practice and study of applied linguistics.

The practice of applied linguistics in this talk will be exemplified by the application of insights from linguistic concepts in two broad areas, the teaching and learning language. I will first elaborate the usage of technology in language teaching, especially related to the implementation of e-learning. Next, I will elaborate the impact of the use of technology for language learning. For these areas, I will discuss what I have done in Bina Nusantara University and what the university has provided.

On the contrary, for the study of applied linguistics, I will elaborate how technology is incorporated in applied linguistic research. The implementation of technology in the study of applied linguistic has born new linguistic studies such as *corpus linguistics, computer mediated communication, human-computer interaction, computerized language assessment, computational linguistics, educational technologies, machine translation, digital discourse analysis*, and many others. However, I will only present some samples of study that I have done.

As applied linguistics is an interdisciplinary field of study, there has been an open opportunity for interdisciplinary or cross-discipline research.

3. The impact of technology in language teaching

The outbreak of Covid-19 in March 2020 has forced the closure of schools and campuses all over Indonesia. This decision has drastically changed the way education is conducted. The extensive school closure in this era has been shaped by rapid transformation in technological innovations and digitalisations, especially in educational context (Mc Farlane, 2019).

Suddenly, all teaching activities should be done online. Traditional face-to-face classrooms were stopped and replaced by online classrooms. At that time, the only way to keep education going on was to rely on technology. Technology enables teachers to convert their conventional learning to e-learning. Anderson (2016) defines e-learning as a learning method based on websites and technologies that transpire in a traditional learning environment.

At first, e-learning, or the use of technology for language teaching, was done to enhance teacher's presentation in the face-to-face classroom. So, teachers are still teaching in front of their students who were physically present in the classroom, with the aid of computer technology. The practice of implementing technology in language teaching has actually been going on for decades. In the 90s, Levy (1997) has begun discussing the applications of computer in language teaching and learning. The terms for this study are Computer assisted

language learning (CALL), Computer aided instruction (CAI) or Computer Aided Language Instruction (CALI) (Higgins, 1983). Yet, the main function of CALL is as a tool that helps teachers to facilitate the language learning process. CALL can be used to reinforce what has already been learned in the classroom or as a remedial tool to help learners who require additional support.

In short, technology has been used in language teaching as an addition to face-to-face teaching, not the main focus. However, when the situation forces us to turn into online, technology become the only way out. As a result, this sudden technological transformation has forced teachers to acquire new technological skills to be able to survive and achieve their teaching objectives.

The first thing that teachers have to do is mastering video conferencing technology. Video conference through Zoom, enables teachers to conduct synchronous online meetings with the students. For teachers who are not tech-savvy, maintaining the smooth e-learning class can be problematic. For example, teachers cannot use certain features in Zoom so learning session is interrupted. Video conferencing allows a synchronous teaching session in which teachers still have the chance to interact with students. This feature was supposed to replace face-to-face meetings during the pandemic situation so that the teaching learning activity could still be going on (Karjo, Andreani, Ying, Yasfin, et al., 2021)

Secondly, teachers are demanded to create interesting and engaging course materials. Presenting materials online are not the same as in the classroom. Students can only see the presentation from their computer screen. Therefore, the materials, in the form of Power Point slides should be able to attract their attention as long as the class last. Consequently, teachers need to learn some programs such as Canva or Adobe Premier to create appealing contents.

Third, teachers are also requested to learn some teaching technologies for conducting online teaching activities such as collaborative work and quiz. Two technologies that can be exemplified are Padlet for collaborative assignments and Kahoot for interactive quiz. There are many other teaching technologies that can be utilized according to the needs of the teachers' specific needs. Teaching technology is needed to keep up with the current trends in e-learning practice. Moreover, teaching pedagogy is also needed to make online learning interesting, engaging, and to achieve the teachers' teaching objectives (Karjo, Andreani, Ying, Yasfin, et al., 2021)

Besides mastering the teaching technology, teachers can also try to gamify their teaching. Gamification, which is also called game-based learning, has been found as a potential strategy to avoid pervasive student disengagement in the classroom, especially during online learning (Chen et al., 2016) have found that the use of in gaming strategy has significantly improved learning outcomes and motivation of the students in the traditional classroom lecture. Thus, in online context, gamification is expected to bring similar results. Gamification then can foster participation, autonomy, empowerment, and digital literacy (Kapp, 2012).

Nowadays, even though the pandemic situation has begun to recover, we cannot go back to previous way of learning. We still have to continue using technology in our education system. Blended learning or hybrid learning will be the educational system in use in post pandemic era in all educational levels, especially in higher education or universities. The rapid advances in technology allow us to use technology in very different high-tech lifestyles, so teachers should also be educated about the possibilities of technology to improve and change their work (Chapelle, 2003).

As the university, well-known for its advancement of technology, Bina Nusantara University has provided tremendous support for the successful implementation of e-learning. Binus continuously improve the technological infrastructure for e-learning by providing sophisticated Learning Management System Binusmaya and also other technological tools Moreover, lecturers are also given continuous trainings for implementing the digital tools and digital teaching methodology.

4. The impact of technology in language learning

Computer technology has been so integrated in people's daily life, especially university students. The current students can be categorized as gen Z. This generation of students are termed as 'digital natives' by Prensky (2001) as they were surrounded by computer technology since they were born until now. Thus, technology cannot be separated in their life and affect all aspects of their life including how they learn any subject, especially language.

Yet, in case of language learning, computer technology has brought several impacts. Kern (2011) describes these impacts by using three metaphors of computer: computer as tutor, computer as tool and computer as medium. These three metaphors will shape the way students perceive technology in their learning.

In a way, computer 'replaces' the role of a teacher who has to transfer knowledge. Kern (2011) offers the term 'computer as tutor' to imply that the computer is simulating a teacher in some way, such as when computers are used to present materials, to provide language practice, to test learners' knowledge of language, and so on. Learning language then will become personalized and suited to the students' needs. They can choose their own teachers, materials, and learning method.

The second term is 'computer as tool'. In this 'tool' metaphor, (Kern, 2011) put the focus on individual learner capabilities and cognitive goals and needs. Through computer (and internet) students can access a wide variety of authentic materials, either written, audio, or visual forms that are relevant to the language being studied. They can get news media, film clips, videos, blogs, websites, and many others. Internet also offers research tools such as search engines, online dictionaries, grammar checkers, and writing assessment tools.

The last metaphor of computer is computer as 'medium'. This term emphasizes the role of computer to enable learners to engage in a wide variety of communicative practices. The communication can happen between learners and teachers, or among learners themselves. This last function of computer brings about the study of computer mediated communication (Danet & Herring, 2007).

The three functions of digital technology in language learning have been implemented in Bina Nusantara university. For over two decades Binus has implemented a learning management system (LMS) called Binusmaya. Jurado (2014) define LMS as a 'toolbox' of programs intended to support learning teaching and course administration. LMS in higher education has a fundamental role to enable connections and interactions between three constituents: students, teachers and content (Holmes & Rodrigues, 2018) The main functions of LMS are facilitating lecturers and students in achieving learning objectives, managing assessment and the course contents (Cavus, 2013). Thus, to fulfil these functions, an LMS must contain certain features such as for sharing documents, discussion forums, and assessment. Yet, in 2020, as the pandemic broke out, a video conferencing feature was added to Binusmaya. Video conferencing allows a synchronous teaching session in which teachers still have the chance to interact with students. This feature was supposed to replace face-to-face meetings during the pandemic situation so that the teaching learning activity could still be going on (C. Karjo, Andreani, Ying, Herawati, et al., 2021).

Among other things, discussion forum is the feature that the students want to be improved. They want the forum to be more interactive or real time like in some chatting applications such as Whatsapp or Line (Andreani et al., 2021). In this way, students can get immediate feedback or responses from their lecturers and vice versa (Meurant, 2010); (Ippakayala & El-Ocla, 2017) Therefore, Binusmaya can improve its role as medium of communication.

Nevertheless, the role of computer as medium of communication is still regarded as insufficient. During the online learning, in which lessons were conducted virtually through zoom, many students admit that they did not have the self-motivation to study by themselves. They were feeling isolated from other students and their teachers, and they often feel anxious about learning process and results. Moreover, learning through computer often leads to digital distraction since there are no teachers or friends who are studying with them. They are often tempted to do other things with their computer such as browsing other sites, chatting, or even do unrelated physical activities such as walking or eating (Andreani et al., 2021).

5. The role of technology in language related research

In this part, I will briefly describe several studies in the field of applied linguistics that are also related to other disciplines. I will also try to explore technological affordances that have been used or could have been used in those studies.

Research in forensic linguistics

Forensic linguistics has become an umbrella term for all forms of language-based research which related to legal matters (Rock, 2011). For example, when someone has been threatened and the police are trying to discover who made the threat. Another example is when someone committed suicide and leave a suicide note, and the police is trying to find out whether the note is written by the victim or whether the suicide is a murder. Authorship analysis like this can be done by a forensic linguist expert.

One study that might be categorized as a forensic linguistic study, is the study that discussed hate speech which were posted in Facebook (Karjo & Ng, 2020). Hate speech posts have been pervasive since the presidential election in 2014. So, in this case, we analysed the hate speech propaganda from and against Muslims in Facebook posts. We compared 40 posts from 4 Facebook pages: two pages from Anti Muslim Groups in the UK and the USA, while the other two were taken from Muslim groups in Indonesia. The results show that Anti Muslim group abroad viewed Muslims as dangerous and threatening, while Muslim groups in Indonesia

targeted the government as their enemy. This paper was published in International Journal of Cyber Criminology.

As we can see, research in forensic linguistic can be done collaboratively with experts from other disciplines, such as law, criminology, forensic psychology, and other related ones. There are many language-related issues that can be studied within forensic linguistic scope. The data for forensic linguistic study can either be in the form of audio-visual data or textual data. The data can be as little as 20 Facebook posts as in our research above, or they can be thousands of social media posts. Gathering a lot of data need some technological tools such as *web scraping* or *text mining* program. For example, to get a thousand hate speech posts from social media users from all over Indonesia.

Besides for collecting data, technology is also needed for analysing forensic data. For example, in a case for finding the speaker (suspect) of an oral threat, a *speech analyser device* is needed to compare the voice in the threat with voice files of possible suspects. Similar procedure can be done for checking the authorship of a specific note. This note can be compared with many other writing samples of the same person by using a *concordance* tool. This tool can help a researcher find certain syntactical patterns, dictions, and other linguistic markers which are unique to a specific person and finally can help identify the author of the said document.

Research in Corpus Linguistics

A corpus is a language resource consisting of a large and structured set of texts, which are electronically stored and processed. The ability to store a large amount of data in a relatively small computer means that corpora could be as big as one wanted. For example, Corpus of Contemporary American English (COCA) contains a one billion words of contemporary American English. This site was created by Mark Davies, the professor of corpus linguistics and Brigham Young University. Similarly, the British National Corpus (BNC) contains 100-million-word text corpus of samples of written and spoken English from a wide range of sources.

The availability of corpus sites and the other types of corpora have brought the emergence of corpus linguistics. Corpus linguistics refers to the study of machine-readable spoken and written language samples that have been gathered in such a way for linguistic research purpose (Adolphs and Lin, 2011). Technology has also enabled the creation of multimodal corpora in which various communicative modes could be part of the corpus (McCarthy & O'Keefe, 2010).

Thus, corpus can be in the form of speech, body language and writing and can be obtained from many sources.

Researching corpus can be done using some corpus tools. One of these tools is *AntConc*. AntConc is a freeware corpus analysis toolkit for concordancing and text analysis. AntConc is created by Laurence Anthony from Waseda University, Tokyo. As text analysis tool, AntConc offer Word frequency lists, lemma list, concordance, key word in context (KWIC) dan multiword clusters or collocation.

A sample of corpus linguistic research that I have conducted is analysing grammatical complexities of Indonesian and English noun phrase with a concordancer. I made a sample corpus consisting of 5 short news (3500 words) in English and Indonesian for the data. The main objective is to identify the headword of noun phrases in both languages and to analyse the grammatical structure of the modifiers of noun phrases. To analyse the data, I used the concordance tool (Anconc). The process was by listing the head words manually and inserting the key word in AntConc to get the concordance list, and then selecting the string of words from the concordance list that qualify as noun phrases. The results showed that 64% of Indonesian Noun Phrases are retained in their English equivalences.

Corpus analysis can actually be implemented in many research areas. For example, it can be used in language learning, language teaching and in creating language teaching materials and syllabuses. Corpus can also inform us about pragmatics, registers and genres, and sociolinguistics. For other areas of research, corpus can be applied in the study of media discourse, forensic linguistics, and political discourse.

Research in machine translation

Translation involves rendering written or oral texts from one language to another (Baker & Perez-Gonzales, 2011). The practice of translation is widely affected by the use of technology. People often use machine translation tool such as Google Translate for translating any kinds of documents. While machine translation can produce fast translation result, the quality of translation is still questionable. Raley (2003) explains that machine translation technologies emphasized on functionality and utilitarianism. Therefore, reasonably accurate and functional draft translations are only feasible when both input and output are restricted in terms of style, vocabulary, figurative expression, and content.

I did a few studies concerning machine translation, specifically google translate. However, the focus of the study is on the quality of translation produced by GT in comparison with human translators. In one study entitled "Comparing the translation of noun phrases of Human and Google Translate" (Karjo, 2016), I compared the translation of online news sites. This study found that the accuracy of translation using machine translation tool is often unreliable, particularly in terms of syntactic arrangements. Thus, the message of the original text is not fully conveyed in the target text. In comparison, both human and Google Translate still make errors in translation, even though the nature of their errors differs.

From the point of view of applied linguistics, research on machine translation can only be done qualitatively by looking at the products of translation. An applied linguist cannot go backward in analysing the process of translation by machine translation tool. We cannot see why the translation errors still occur despite the sophisticated features of the machine translation technology. Perhaps, a collaboration with computer science expert can fill the gap in this area, so the research in machine translation will be more comprehensive and give more impact in the future.

Research in phonetics and phonology

Phonetics and Phonology are among the branches of linguistics with least impact on applied linguistics (Fraser, 2011). Phonetics is a field of study that deals with the scientific study of speech sounds, from the production and representation of the sounds (Kurdi, 2016) While phonology deals with the description of the systems and patterns of speech sounds in a language (Yule, 2012)

In my research for dissertation, I conducted the research in phonetics and phonology area. My study aimed to identify the lexical stress placement by university students by using repetition priming method (Karjo, 2016). This was an experimental method in which participants were tested after given auditory stimuli. Since the focus was stress identification, then the data were in the form of recordings of participants speech. Although the number of participants were only 30, each of them should say 80 words, thus a collection of 2400 speech samples should be analysed. To analyse the data, I used the speech analyser program called **Audacity** (2000). This is an opensource program that analyse the formant, frequency, and the pitch, since word stress can be identified from the loudness, the tone, and the different vowel quality of the stressed syllable. For example, the word 'university', is stressed on the third syllable 'ver', thus 'ver' should be pronounced louder, higher, and more prominently.

Analysing a large quantity of speech data is almost impossible to be done manually using human ears. Therefore, the application of voice analyser technology such as **Audacity or Pratt** is a must. These programs can measure the multidimensional representation of sounds such as acoustic energy, amplitude, formant, etc.

These programs can also be used in other field such as in forensic linguistic research. For example, comparing the telephone conversation of a bribery suspect with the other voice samples of the suspect. The quantitative representations of those sound files will help determine whether the voices belong to the same person or not.

Research in gender

Research in gender is usually done within the field of sociolinguistics. The primary aim for language and gender scholars is to show that language (both language in use and in representation) was a primary means of constructing gender differences (Baster, 2011). These are actualized in the study about the different way women and men talk (by extension speak and write) and how these differences were represented in language. Research about language and gender is said to be marked by the publication of Lakoff's study on Language and Woman's Place in 1975. In her study, Lakoff (Lakoff, 1973) mentioned the characteristics of women speech, such as the use of empty adjectives, hedges, boosters, and tag questions. Lakoff's claims about women's linguistic features express women's lack of confidence (J. Holmes & Wilson, 2017). Thus, research in language and gender will be related to the position of gender in the society.

A sample of research in gender and language was done with one of my students, entitled the language features of male and female beauty influencers in Youtube videos (C. Karjo & Wijaya, 2020). The aim of this research is the find the language differences between male and female beauty influencers. Beauty influencers are content creators who produce videos containing reviews of beauty products or tutorials for using beauty products. Traditionally, beauty products were targeted to women customers. Yet, there are male beauty influencers as well, so, it is quite interesting to see how these male and female influencers talk in their videos. The result show that male influencers tend to be more straightforward and directive, using plain and simple words. Meanwhile, women influencers are more polite and intimate in their language.

Study about language and gender can be implemented in many different fields. For example, for marketing field, a study about gender-based customers reviews of a particular product can

reveal the customers' preference and help companies to make decision about the product sales based on the study. Technology, in this case, can be used to collect and analyse data, particularly big amount of data. Let's say we want to collect 1000 reviews from Amazon web site about a vacuum cleaner, then *a data mining program* can be used for this purpose.

Research in digital discourse

Digital technologies have given rise to a host of new ways for people to communicate, manage social relationships, and get things done (Jones et al., 2015). The affordances of digital media also provide the production of multimodal texts. For example, interactive writing spaces such as social network sites offer people various forms of social interactions which differ from those found in face-to-face conversation and traditional written texts. Therefore, research in discourse is now termed as digital discourse analysis. (Gee, 2004) stated that digital discourse analysis is now concerned with how multimodal, multisemiotic resources are employed to enact identities, activities, and ideologies in the digital world, as part of a larger social world. In short,(Bou-Franch & Blitvich, 2019) affirm that the analysis of digital discourse lies at the intersection of (non) language resources, society, and technology.

Digital humanities research

Digital humanity is an interdisciplinary field that explores the intersection of technology and the humanities. It encompasses a wide range of activities, including the use of digital technologies to study and interpret human culture and history, the development of digital tools and resources for the humanities, and the use of computational and data-driven methods to answer humanities research questions (Drucker, 2013).

Digital humanities researchers use a variety of digital tools for their research. An accessible, free example of an online textual analysis program is Voyant tool (Voyant tool.org). Users can use this tool by copy and paste texts or URL and click the 'reveal' button to run the program. Voyant was made to enhance reading through lightweight text analytic such as word frequency list, frequency distribution plots and KWIC displays (Klein et al., 2015). Some of the features in Voyant are similar to those found in corpus tool like Antconc. However, Voyant is more lightweight and can give interesting visual display of data.

In principles, applied linguistic research can also be included in digital humanities since applied linguistic seek to answer language related human research questions. Moreover, the majority of applied linguistic research also involve the use of digital tools. For example, (Ramsby, 2016) have used Voyant Tools to analyse literature text, and (McIlroy, 2013) used it in language teaching context. The trend of conducting applied linguistic research within the tradition of digital humanities will be thriving and pervasive in the future.

6. The role of university in advancing the practice and study of applied linguistics

The main objective of applied linguistics is to seek out and provide solutions to real-life problems that results from language related causes. Technology, in this case, should be implemented to solve the problems that happen in the society. This objective is in line with the vision and mission of Binus University which is Fostering and Empowering the society in building and serving the nation with the use of technology. Moreover, the use of technology in the practice and study of applied linguistics also supports Binus Digital Transformation.

The most notable solution for online learning provided by Binus is the development of Binusmaya, a Learning Management System which can cater all teaching and learning activities. Binusmaya is the digital solution offered by the university for planning and organizing works, gathering information, communication with students, academics, and administrative staff, and gathering and analysing information to improve the educational process. Although it is not specifically used for teaching languages, Binusmaya has been an indispensable tool for lecturers as well as students to achieve their academic goals.

Besides building a good learning management system, the university should support students in the digital learning environment (Daniela, 2020). These can be done by developing digital competences to ensure that the potential of technological possibilities is fully exploited and by facilitating access to education for potential students who have limited access to it. One digital learning experience that has been developed by Binus is the Beelingua application. Beelingua is a language learning application that enables students to learn languages (English, Chinese and Japanese) in their own time. Although it is not perfect, Beelingua might become another choice for digital language learning apps beside Duolingo or Babbel.

Finally, to offer greater impact or technological solutions to a wider society, research in applied linguistics should be done collaboratively with other disciplines. We should develop new digital solutions and learn new competencies to study and analyse synergies between different fields. For example, an applied linguist can collaborate with computer scientist to develop a machine translation that can produce more accurate results or invent a language learning app that is more interesting and engaging. The possibility of research collaboration between applied linguistics and other disciplines is infinite and the results will contribute to solve practical problems in real-world.

The step towards achieving the goal of interdisciplinary research has been taken by Binus with the founding of several Research Interest Groups (RIG). These RIG gather lecturers from several different departments to share their expertise and do collaborative research. We believe that studies produced by the RIG members will contribute to the scientific advancement in Binus and also give beneficial impact to the society.

However, I still hope that Binus can also facilitate a research center that provides technological infrastructures for studies of humanities, particularly for applied linguistic studies. This digital humanities center can offer technology to enhance the study of the humanities and make these research more accessible and widely available.

Throughout this talk, I have been trying to explain how technology plays an important role in the practice and study of applied linguistics. Applied linguists, either as language teachers or language-related researchers, should embrace the technology in every aspect of their work. Let me finish with another quote from Matt Mullerweg, "Technology is best when it brings people together."

That is all that I can convey today. Thank you.

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