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INTERNATIONAL CONFERENCE
ON CHRISTIAN EDUCATION



Christian Education in Digital Technology Era: Challenges and Opportunities

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**Christian Education in
Digital Technology Era:
Challenges and
Opportunities**

June 4th, 2022



UPH
UNIVERSITAS PELITA HARAPAN

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Christian Education in Digital Technology Era: Challenges and Opportunities

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Editors:

Dr. Yohanes Edi Gunanto, M.Si.

Henni Sitompul, M.Si.

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Welcome from the Rector of Universitas Pelita Harapan



Shalom and gratitude be to our Lord Jesus Christ! It is because of His love and mercy; we can gather together here in this event.

We are now in the end of the pandemic, where more than two years unprecedentedly we were forced to move to virtual education and embrace digital technology. Out of the millions of educators in Indonesia, both in primary, secondary, and higher education, quickly must learn and implement online teaching and learning. Every educator is required to adapt to various digital learning media, suddenly digital technology is not only a tool but the environment where we are living and interacting with one another.

Not only do the schools have to provide the system to support virtual learning, but educators also have to be equipped to design instructions that fit with the virtual setting. This need eventually triggers various parties to adapt, move, and innovate. Educators use a variety of media as a virtual meeting bridge with students. Not satisfied with just meeting virtual, educators also make some innovations by using other features and exploring any applications that will help provide creative materials and teaching materials.

However, despite of all the improvements and innovations in delivering teaching and learning in digital technology setting, there are many obstacles and challenges. The question remains, are students learning effectively? Especially for Christian educators, we need to keep asking the question, whether we have faithfully and effectively carried the mission of Christ-centered education, facilitating holistic transformational education in this digital technology era?

Christian education must consciously be aware of the current educational challenges while embracing the opportunities through the rapid development of digital technology. We should continuously ponder how to be faithful to our calling as Christian educators in this era of disruption. We should strive to be an exemplary institution in presenting Christian education during the fast-changed of digital technology. We believe that every technological progress is the fruit of cultural mandate to advance humans' life, fostering life given by God. On the other hand, Christians are also aware with our fallen nature, that there is a possibility of missing the point in any good effort that we are trying to do. Further as human beings, are we going to develop holistically if education is reduced by totally virtual learning? These are some questions that we need to keep thinking and discussing.

UPH, especially Teachers College, is grateful that we can host the first International Conference of Christian Education, especially inviting best panelist speakers to inspire us. We hope that through the ICCE event, there will be a forum for us, educators and practitioners of Christian education, to discuss the opportunity and challenges of doing our mission in the midst of such rapid technological advances. We also hope that this event will encourage us that amid various challenges that exist, God is faithful in sustaining us thus giving us hope to embrace the opportunities that are wide open to further our service to provide a quality, holistic, and transformational education.

Finally, enjoy the conference, Lord Jesus bless you.

Dr. (Hon.) Jonathan L. Parapak, M.Eng.Sc.

Welcome from the Dean of Faculty of Education, UPH



Today what is happening in the classroom is different from practices before the pandemic. Changes will continue to occur, especially with the advancement of digital technology, which will become increasingly sophisticated. The interaction of education with technology is inevitable. As Christian educators, we embrace digital technology development. We believe students as the Image of God, and the purpose of educating them is to see them flourish with creativity and innovation for the development of human civilization. However, every technological development that brings about good changes may unwittingly change something essential. For example, now we cannot escape from digital technology. It is ubiquitous; from communication, working, shopping, and many more, all are on the digital platform. It has changed the way we interact with one another. To what extent has it changed us? How can Christian education embrace but also be aware of these?

That is the background of the International Conference on Christian Education with the theme, Christian Education in Digital Technology Era: Challenges and Opportunities. Christian educators must continue discussing this topic to carry out our mission faithfully. Continuously we need to learn and relearn to prepare our students well and be ready to embrace their future as disciples of Christ.

UPH Teachers College is very grateful for the cooperation with various parties, ACSI Indonesia and Australia, and Bandung Theological College, which made this first international conference possible. Likewise, we are blessed with the plenary speakers who are experts in their fields and will share their research and insights. We hope that all the presenters and participants will benefit most from this event. The committee has worked very hard to prepare for this event and we hope that by the end of the conference, the conversation will not stop. Let us continue strengthening Christian education in Indonesia through this forum, and we will meet again at the following conferences.

In the end, as our God has led all the preparation for this conference to take place, let His wisdom guide our conversation! All praise and glory be to God alone!
God bless.

Oh Yen Nie, S.E., M.Ed.

Welcome from the Head of Bandung Theological Seminary



The ever-evolving world is a part of the Cultural Mandate or the Creation Mandate, which is revealed in Genesis 1:28. Therefore, we should respond to the development of digital technology critically and positively for Christian education in various contexts.

We are grateful for the first International Conference on Christian Education (ICCE) today, June 4, 2022, as the result of the collaboration between the Faculty of Education UPH, ACSI Indonesia, ACSI Australia, Indonesian Christian Education Council, and Bandung Theological Seminary (STTB), to study the opportunities and the challenges of Christian education in digital era, by involving the experts from within and outside the country as the speakers.

Thank you, especially for the willingness of Mr. David Smith (from Calvin University, US), Mr. Darren Iselin (from ACSI Australia), and Mr. Agus Susanto (from ACSI Indonesia), as the speakers, and for all the committee from the Faculty of Education UPH who has been working hard to prepare this conference.

Hopefully, all the opportunities and the challenges in Christian education in the digital era that are studied through this conference will equip fellow educators with more comprehensive and sharper insights from the biblical point of view, so that the purpose of Christian education which is to produce Christian leaders who have a good spirituality, high competence, and strong dedication, can be more realized through this conference.

Welcome to this conference. God bless you!

Sutrisna Harjanto, Ph.D.

Welcome from the ACSI Indonesia National Director



Dear ICCE presenters and participants.

The development of digital technology is rapidly changing the order of human life—which is also developing so swiftly as well. There are those who agree and follow the speed of development, accept it for granted, and even get involved in the development. Still, not a few are also indifferent to it, disagree and refuse to use digital technology for all kinds of reasons that are indeed or are made in accordance with their choice of decision. In addition, there are those who try to be neutral ("wise"), by looking at digital technology such as a double-edged sword or fire which can be used either for good or evil purposes. We have already seen practical examples of these two possible uses of digital technology everywhere.

What about us as Christians? Specifically Christian educators? The term of Christian educator, this can be viewed narrowly or broadly. In a narrow sense, some categorize Christian educators as those who work as teachers or lecturers. But we can also see it from a broad sense, that Christian educators are anyone who has the responsibility to educate, direct, and give vision to other people or the surrounding community. And this means that all Christians are actually educators, because Christians are followers of Christ, and Christ has assigned a role to us, Christians, as salt and light of the world. This means that we as Christians must be a flavor for the world and be a statement of God's truth to the world as well.

I represent Christian schools and Christian educators who are members of the ACSI Indonesia organization. I herewith also welcome all the speakers and participants of 2022 International Conference on Christian Education. This conference is organized by Universitas Pelita Harapan in collaboration with several Christian education organizations including ACSI. I hope that this conference can continue in the future and there will be more Christian educational organizations including churches, and synods, to be able to collaborate, like what is stated by ACSI's motto: Stronger Together, for us to be strong together, as one body of Christ. Let's salt the world more and bring light to the world. I hope that through this ICCE more and more people who work as Christian educators will grow and more Christians in general will be more aware of their calling and will realize that we are all educators, tasters, and proclaimers of God's truth, who need to be equipped and strengthened at all times. Especially through the theme of the 2022 ICCE: "Challenges and Opportunities for Christian Education in Digital Technology Era."

Finally, congratulations to UPH for initiating the first ICCE in 2022. Let us be those who wait on the Lord so that we may gain new strength, like an eagle that soars with the power of its wings, we run and do not become listless, we walk and do not grow weary (Isaiah 40:31).

Thank you, God bless us all.

Agus Susanto, Ph.D.

Welcome from the Chairman of the 1st ICCE UPH 2022 Committee



Shalom Aleichem, gratitude be to our Lord Jesus Christ, because of His love and favor, we can gather in this conference. It is such an honor for me to welcome you to the 1st International Conference on Christian Education (ICCE) UPH 2022, with the main topic, "Christian Education in Digital Technology Era: Challenges and Opportunities."

The rapid development of science and technology in today's digital technology era encourages the emergence of various educational innovations based on learning technology, making it easier for educators and students to access multiple educational contents. This is marked by the ease of obtaining access to information and internet connection speeds. The Covid-19 pandemic has increasingly encouraged the emergence of various forms of digital learning media globally. This unavoidable pandemic requires school administrators', education providers, educators, and students to be able to adapt to changes in learning patterns from face-to-face learning to online learning. An education system that combines digital technology with the learning process will open opportunities and challenges as real implications of the transformation and paradigm shift of education in the digital technology era, including Christian education in it. Therefore, the 1st ICCE UPH 2022 aims to 1) Explain the implementation of digital technology in learning and its implications for students' faith formation; 2) Discuss digital technology development in learning and its implications and influence on the way we communicate and relate to others in Christian educational context an excellent, holistic, and transformational; 3) Enrich understanding to Christian educators regarding the calling response to teach in digital technology era by looking at the opportunities and challenges.

For organizing the 1st ICCE UPH 2022, allow me, as the chairman of the organizing committee, to express my deep gratitude and appreciation to the Keynoted Speakers, Mr. David I. Smith, Ph.D. (Professor from Calvin University, USA), Mr. Darren Iselin, Ph.D. (Director of Research and Innovation Christians School Australia), and Mr. Agus Susanto, Ph.D. (ACSI Indonesia Director) for each conference material presented. We also express our gratitude and most profound appreciation to the Advisory Boards and the organizing partner, Mr. Dr. (Hon). Jonathan L. Parapak, M.Eng.Sc. (UPH Rector), Mr. Sutrisna Harjanto, S.Si., M.Div., Ph.D. (Chairman of Bandung Theological Seminary), Mr. Agus Susanto, Ph.D. (Director of ACSI Indonesia), Mrs. Sandra Scott (Executive Officer of International Partnerships and Service Christian Schools Australia) and Mr. Marks Spencer (Director of Public Policy Christian Schools Australia). Likewise, we would like to express our gratitude and most profound appreciation to the Supervisory Board, Mrs. Oh Yen Nie, S.E., M.Ed. (Dean of the Faculty of Education, UPH) and Mrs. Sarinah Lo, Ph.D. (Senior lecturer of Bandung Theological Seminary) and to the Steering Committee Mr. Dr. Budi Wibawanta, S.Sos., M.Si. (Vice Dean of the Faculty of Education, UPH) and Prof. Dr. Niko Sudibjo, S.Psi., M.A. (Department Chair of Educational Technology, Faculty of Education, UPH). Expressions of gratitude and highest appreciation are

conveyed to the entire organizing committee team, who have worked tirelessly to prepare for this conference so that it can be organized successfully. We also express our gratitude and appreciation to the presenters who have shared articles and published works in the form of proceedings and the participants who have involved in this conference.

Finally, we hope through the organizing of the 1st ICCE UPH 2022, as educators and leaders of Christian educational institutions, we can collaborate to do concrete works in the area where God has entrusted us in responding to the opportunities and challenges in the digital technology. We will appreciate constructive suggestions and criticisms to improve the quality of future conferences. To God be the Glory.

For we are his workmanship, created in Christ Jesus for good works, which God prepared beforehand, that we should walk in them. - Ephesians 2:10 (ESV)

Immanuel Adhitya Wulanata Chrismastianto, S.E., M.Pd.

Interactive and Multimodal Learning of Hermeneutics Courses with Hermes AI Chatbot

Arianto Pakaang

STT Providencia Adonay

e-mail: ariantopakaang@gmail.com

Abstract

Hermeneutic learning has been presented through limited media. During the pandemic, teachers experienced many difficulties in presenting this course material. Students need to be guided to comprehend not only the definition, history, and principles of Hermeneutics but also how they use tools and explore genres of the Bible. This limitation is coupled with the condition of students who do not have adequate devices, poor internet connection, and the inability to buy quotas. A very simple yet interactive and multimodal learning method is needed. Learning methods are interesting, cheap, and easy to understand and comprehensive in answering existing limitations. This AI-based Hermes chatbot tries to answer the challenge. Student involvement in the use of this learning chatbot, makes them enjoy and love this course, and unconsciously mastery of this course makes them learn independently and be able to explore. May the Hermes Chatbot be a learning tool for this new generation. Then, they will love God's Word, grow, and become more like Christ.

Keywords: Learning, Chatbot, Hermeneutics, Interactive, Multimodal.

1. Introduction

It has been acknowledged that learning about hermeneutics at the stratum level one theology is considerably significant. This learning might determine the students into individuals who are motivated in finding and loving the truth contained in the Bible. These students are trained to have hermeneutic principles in observing, interpreting, and applying the truths they have found during this process. They are also prepared to present the truth to those who have been entrusted to be served. Grant R. Osborne provides a metaphor in teaching his students to prepare a dish from God's Word to provide solid food for people who they will serve (cf. Heb. 5:14) (Osborne, 2012, p. xv). Generally, this is the goal and determinant of success in this study.

It is a big challenge for educators to deliver the study to achieve the expected results during this pandemic. Educators and students were required to adapt to the Distance Learning (PJJ) method. The common challenges faced by educators are as follows: a) Lack of supervision from educators, motivation, and interest in learning among students tend to decrease. b) The difficulty of measuring and analyzing students' learning progress at home during PJJ. c) Limited internet quota to facilitate PJJ (Dewi, Julia, & Jonathan, Digital Training in Building Chatbot-based Online Learning Media: Action Research for Teachers in

Semarang City through the "Train The Teachers" Training, 2022). Distance learning causes some difficulties particularly in applying the principles of hermeneutics. Another difficulty was related to the uneven distribution of facilities owned by both educators and students. Unstable network and inadequate devices lead to inadequate learning process.

Therefore, the researcher tried to find an appropriate presentation of learning that can overcome these difficulties, which is a new learning presentation technique, where students can learn anytime and anywhere, and repeat to learn the material (Kustandi & Darmawan, 2020). The presentation of learning that is enjoyed by students has been customized with today's young generation.

The researcher chose chatbots, as one of the artificial intelligence manifestations, based on: First, rapid technological developments. Second, the 'attachment' between teachers and students with gadgets, especially mobile phones (Mahdi, 2022). Third, on the characteristics of young people who enjoy the learning process with a fun method (Yildirim, 2017). Fourth, the characteristics of chatbots that can be easily accessed and used (Tan, 2021). Fifth, chatbots enable the presentation of learning in a multimodal manner. Sixth, chatbots allow students to learn anytime and anywhere and relearn the lessons.

This study aims to design a Hermeneutics learning chatbot application for stratum one theology students using the Education chatbot template from Ai4impact - a Global AI community from Singapore with a social mission to help nonprogrammers learn to build Artificial Intelligence applications (www.ai4impact.org).

At the analysis stage, the success of this chatbot was determined by the fulfillment of all needs in presenting material, quizzes, and interesting facts that are presented in an interactive and multimodal, it can be accessed easily, accepted with fun, and improved understanding and mastery the material for students.

2. Literature Review

A chatbot is a virtual robot with artificial intelligence that imitates human conversations via voice messages, text chats, or both via the internet. In short, this chatbot is a virtual conversation in which one party is a chat robot (Sugiono, 2021). This chatbot feature has been used in various industries to convey information. (Moechammad Sarosa, 2020)

Nowadays chatbots have been developed and used in education as well. This technology can stimulate interaction between educators and students in the classroom in online and offline formats, thereby creating effective and fun learning for students (Christanti M., Kurniawan, & Lim, 2021). The chatbot which was developed for hermeneutics learning used a web-based to facilitate access without installing or downloading an application. Presentation of material could be performed multimodally through this chatbot.

The presentation of multimodal learning has been developed recently. Variance in capability, learning methods, and intelligence of each student (Al Fajri, 2022), has encouraged the researcher to present multimodal learning. In this case, multimodal means a combination of several components, such as Text, Image/Visual, Color, Audio, and Video, connected to certain websites or other social media, as well as various things that can be accessed online (Yunansah, Yuniarti, Herlambang, Hendriyani, & Wahid, 2022).

Simple access and applicable chatbot, even though it is presented in a multimodal manner, provided great benefits for educators and students. Learning becomes creative,

interactive, and in accordance with the ability, method, and intelligence of students. This learning is also a new experience and opportunity for them. Experience and opportunity to develop learning materials that are relevant and can provide answers to real-world problems for personal, family, and community. Educators and students will experience meaningful learning.

The researcher used the Education chatbot template from Ai4impact Singapore in designing the learning in question. The advantage of this Ai4impact chatbot is the ability to be accessed on all social media platforms, while others are only based on one particular platform, for example using Facebook (Moehammad Sarosa, 2020) or telegram (Sudiatmika & Dewi, 2020) only. Researchers named this chatbot HERMES. Chatbot Hermes is a web-based presentation of multimodal Hermeneutics learning in the form of conversations and adventures. Combining fixed and running text, various colors and forms of writing, sound or music, videos, web-sites, and other online resources.

Conversation and adventure were chosen as the storytelling method in the HERMES chatbot because this method provides the opportunity for students to identify themselves with the characters in each event. Afterward, they can find the living values of the story. Of course, each event provides a broad perspective but can be personal and relevant for each student

Applying stories is a method of delivering learning material that involves the mind, mental readiness, courage, and feelings. The involvement of various elements in students promotes the story strongly embedded in their memories. In addition, students would like to share their experiences with other students (Nurhayani, 2010). The researcher also experienced this, when delivering illustrations in the form of stories became explanations of learning materials, it showed that all students enjoy them. When they reflected on the learning which had been received at that time, most of them rewrote the story/illustration that inspired and strengthened them.

Advantages of Chatbot as a learning medium

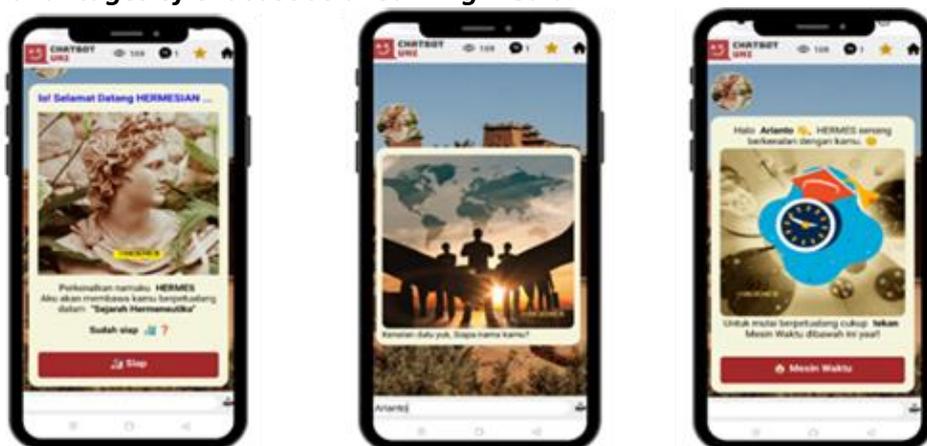


Figure 1. The initial appearance of the chatbot was interactive, step by step and measurable.

Table 1. Advantages of Chatbots in Learning Process

Bite-Size	Advantage	Measurable
Students can learn complex material gradually. They can learn concepts and then test their understanding through quizzes at their own pace. (Christian, 2021)	Chatbots support two-way active learning with interactive content composition. Students learn and have fun in chatbot conversations with gamified reward points. (Yildirim, 2017)	Educators can monitor students' learning process in detail in each conversation. Educators can find out specific quiz scores and weaknesses by providing direct intervention quickly and precisely.

To answer the challenges of educators, the following chatbot features have been prepared and can be used (Dewi, Acita Chatbot Guide Module 1.2, 2022):

Table 2. Chatbot features in responding to the challenges from educators

Increase students' motivation and interest in learning	Measuring and analyzing student learning progress	Virtual learning that saves internet quota
<ul style="list-style-type: none"> • Relaxing conversation-based interactive learning content • Interactive and multimodal learning 	<ul style="list-style-type: none"> • Providing quizzes when delivering material to measure the students' learning progress • Creating class ID and User ID to display the learning progress of each student 	<ul style="list-style-type: none"> • Use chatbots via website without download an application • Use images and short videos to save quota. • Simple but effective and interactive chatbot interface

3. Research Method

The need for interactive and multimodal hermeneutics learning with web-based chatbots and artificial intelligence had been designed. The development of this learning chatbot used a template provided by Ai4impact Singapore.



Figure 2. Illustration of the Hermes Chatbot in the application and learning process.

The procedure of presenting the learning process in a chatbot was performed by entering material, quizzes, and fun facts by the educators into the chatbot so that it could be accessed by students (No. 1 in Figure 2). The development of the HERMES chatbot material is based on the hermeneutics course syllabus. The material presented during this semester has a broad scope. The material entered can be the entire course material per semester, several chapters, or one chapter in a chatbot. It depends on the concept and creativity of educators in presenting it.

The presentation of this hermeneutics course used two chatbot links. The material about the History of Hermeneutics in the Hermes 01 chatbot, was placed in a chatbot that has the nuances of adventure to various ages through a time machine. Meanwhile, the material on Introduction to Hermeneutics which includes understanding, tools, principles of hermeneutics, and genre analysis, was placed in another chatbot, namely Chatbot Hermes 02, which has a pleasant conversational nuance. After entering the material, quizzes, and fun facts into the chatbot panel, then students accessed the chatbot via cellphone or laptop, to watch, hear and understand the material, take the quiz, and find out the fun facts. (No. 2 in Figure 2). After accessing and taking quizzes, the chatbot will record the quiz results, then educators view the report results in tabular form (No. 3 in Figure 2).

The next stage is to conduct trials with users or students. In this case, the researcher conducted a trial at STT Providensia Adonay, Batu Malang. This trial aims to get feedback about the experience in accessing and using the HERMES chatbot. Users filled out a questionnaire to measure the level of interest and provide input on the development of this chatbot.

4. Results and Discussion

The HERMES chatbot is a digital, interactive, and multimodal learning media regarding Hermeneutics learning at the Stratum one Theology level. This chatbot is called Hermes,

taken from the name of a Greek god who mediates between the gods and humans (Verdianto, 2020). This name is in accordance with the meaning contained in the word Hermeneutics, so it is easy for users of this chatbot to remember. This chatbot user is called Hermesian.

The main objectives of the HERMES Chatbot are as follows:

- a) For educators: To support teaching and learning activities for Hermeneutics courses both online and offline, with learning media that have been designed and ready to use.
- b) For students: Understanding the concepts of the Hermeneutics course in a simple, interactive, and effective way for online and offline learning modes.

HERMES Chatbot content and features

The Hermes chatbot has three (3) sections: Material, Quiz, and FunFact.

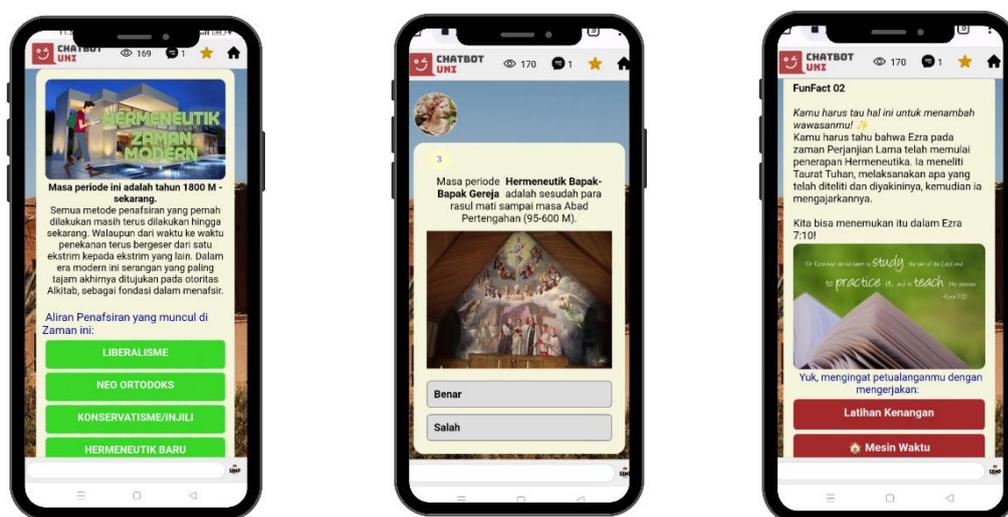


Figure 3. Main Menu on Hermes chatbot

Materials

HERMES 01 – The history of Hermeneutics, was presented with adventures through the time machines in seven (7) eras, namely: Jewish Hermeneutics (BC), Apostolic, Church Fathers, Middle Ages, Reformation, Post-Reformation, and Modern. Meanwhile, Chatbot HERMES 02 – Introduction to Hermeneutics, was presented in a conversation about four (4) themes, namely: Definition of Hermeneutics, Hermeneutics Tools, Principles of Hermeneutics, and Genre Analysis.

Chatbot helped students to learn bite-size, fun, and structured material. In creating learning material in chatbot, educators designed the flow in delivering learning material in the form of conversations or games. It also helped students to learn the material interestingly and gradually ensured understanding of the material with the quiz feature. For example, in the Hermes Chatbot, students learned each element interactively and step by step in the form of conversations that can be easily navigated with buttons. Therefore, the application of this chatbot was simple and enjoyable for students who were fond of

playing with their fingers on devices such as cellphones.

The Hermes chatbot framework is certainly quite relevant for other literacy studies. The structure of the material can be used for other courses according to the needs of educators and students in the class. Each material can also be added sub-material if there is information that requires a separate explanation. This is of course significant for educators because the learning materials can be revised at any time according to the latest developments.

HERMES 01 – History of Hermeneutics



Figure 4. Material Framework of Time Machine

HERMES 02 – Introduction to Hermeneutics

- a. Definition of Hermeneutics
- b. Hermeneutic Tools
- c. Principles of Hermeneutics
- d. Genre Analysis

In this Hermes 02 Chatbot, the researcher presented complex learning became it is simpler and in line with the style of the current generation. The image of this presentation was not displayed in the chatbot because it was similar to HERMES 01.

1.a.1 Quiz

Quiz aims to help educators and students measure and evaluate the understanding level of students interactively and gradually. Furthermore, educators can include multimodal interactive content such as images, videos, or animations so that students are motivated to complete the quiz.

In this chatbot, educators determined the number of questions and answers as well as obtained student learning outcomes directly. Further explanations are as following:

a. Determining the Number of Questions and Answers

In quiz content, educators determined the number of questions and the number of answers according to the needs of students in the class. Answers can be either true or false or multiple choice. The HERMES chatbot created 10 true-false questions, as shown in Figure 5.



Figure 5. Display on Quiz/Exercise

b. Results can be Known Directly

When a student answered a question, each answer that had been chosen would immediately appear, whether the student answered incorrectly or correctly. This program could help educators to use their time efficiently in providing assessments to students.



Figure 6. Display on Chatbot Response when User Answers.

FunFact

The fun fact content or interesting facts were presented briefly or with points but informative so that students or chatbot users did not feel bored and were motivated to explore it. Hermes added something unique related to the issue of Hermeneutics but not many people know about it, namely about Paul, who was once considered Hermes, and when the term Hermeneutics appeared.



Figure 7. Display on Fun Fact Chatbot Hermes.

User Instruction for Hermes Chatbot

There are 2 versions of use in Chatbot Hermes: Free Version and Class Version.

FREE VERSION

For the free version, the HERMES chatbot did not measure the user's grades and learning progress when using the Hermes Chatbot. Users used the Hermes chatbot without entering the class ID and user ID prepared by the educator or university administration. The steps are as follows:

- 1) The user accesses the Hermes Chatbot via the following link:

<https://app.smojo.org/ariantopakaang/HERMES>

- 2) The user presses the ready button when the chatbot asks for readiness.
- 3) The user types the name.
- 4) The User can access the material by pressing the Time Machine button on the Hermes 01 Chatbot and the Main Menu on the Hermes 02 Chatbot and studying the material that has been prepared by the educator.
- 5) To access the quiz, the user presses the Memory Practice button and answers the questions that have been provided by the educator to determine the understanding and cognitive assessment of students.
- 6) The user can open Fun Fact about hermeneutics by pressing the FunFact button.
- 7) The user exits the session by pressing the exit button or typing in the chat field at the bottom of the cell phone.



Figure 8. Scenarios in using the Free version of Hermes chatbot

CLASS VERSION

For the class version, Chatbot Hermes measured the results of students' cognitive scores when taking quizzes on the Hermes chatbot. Students entered class ID and User ID prepared by educators or university administrators and then educators would obtain reports on student learning progress. The steps are as follows:

- 1) Student access the Hermes Chatbot via the following link:
<https://app.smojo.org/ariantopakaang/HERMES01K>
- 2) Student presses the ready button when the chatbot asks about their readiness.
- 3) Student types their name, group/class ID, and user ID.
- 4) Student accesses the material by pressing the Time Machine button on the Hermes 01 Chatbot and the Main Menu on the Hermes 02 Chatbot then studies the material that has been prepared by the educator.
- 5) To access the quiz, the student presses the Memory Practice button, and answers the questions that have been provided by the educator to determine the understanding and cognitive assessment of the student.
- 6) Student opens FunFact on hermeneutics by pressing the FunFact button.
- 7) The student exits the session by pressing the exit button or typing in the chat column at the bottom of the cell phone.

Reports on the students' quizzes results could be immediately seen by educators,

including number of correct and incorrect answers, as well as the overall score.



Figure 9. Scenarios in using the Class Version of Hermes chatbot

In using the Class Version of the Hermes Chatbot, educators got access to detailed reports on final results or cognitive assessments in the form of score for each student and copied into Microsoft Excel or Spreadsheets. The development of the HERMES Chatbot had been completed and entered the next stage, namely testing for students. Students provided feedback as a reference for the improvement and development of the next HERMES Chatbot. The trial results on 38 students and observers from STT Providensia Adonay, Batu Malang are as follows:

Table 3. Testing the Questionnaire

No	Questions	Answers		
1.	What was your first impression with this chatbot learning method?	Very Interesting 24 63,2%	Interesting 13 34,2%	Boring 1 2,6%
2.	What do you think about this chatbot design?	Very Good 26 68,4%	Good 11 28,9%	Bad 1 2,7%
3.	How easy is it to access and use this chatbot?	Very easy 28 73,7%	Easy 10 23,7%	Difficult 0 0
4.	Is the multimodal learning method in this chatbot interesting?	Very Interesting 32 84,2%	Interesting 6 15,8%	Boring 0 0
1	Does this chatbot improve understanding and proficiency in learning materials?	Highly improve 25 65,8%	Improve 13 34,2%	No Impact 0 0

Data in Table 3 shows that the responses from users/students to the HERMES Chatbot are 97.4% mentioned that this chatbot was interesting until very interesting, 97.3% mentioned that the design was good until very good, 97.4% mentioned that it was easy to access, 100% mentioned that the presentation in multimodal was interesting to very interesting, and 100% confirmed that this chatbot improved understanding and proficiency of the learning material.

5. Conclusion

The designing process of web-based and artificial intelligence Hermeneutics learning and presentation in a multimodal manner can be realized in this HERMES Chatbot. The availability of features in the Ai4impact Education chatbot template can accommodate interactive and multimodal learning. The test results show that more than 97% of students revealed that this chatbot was fun, well designed, easy to access, interesting, and improved understanding and mastery of the material. It is expected that this chatbot could help us as individuals who like to explore the truth and win in this life. Osborne emphasized that it is our privilege and responsibility to learn about God's Word. In God's Word, the eternal principles that are meant to guide us through this life can truly be found. If we as Christians fail to study God's inspired revelation, it is the same as refusing to recognize the legal rules of the country we live in and violating those rules and causing bad consequences.

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