



THE REPRESENTATION OF ARTIFICIAL INTELLIGENCE

DOMINANCE IN DAN BROWN'S *ORIGIN*

THESIS

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ENGLISH DEPARTMENT

FACULTY OF HUMANITIES

UNIVERSITAS JEMBER

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Submitted to English Department, Faculty of Humanities,
Universitas Jember as one of requirements to obtain
the award of Sarjana Sastra Degree in English Study

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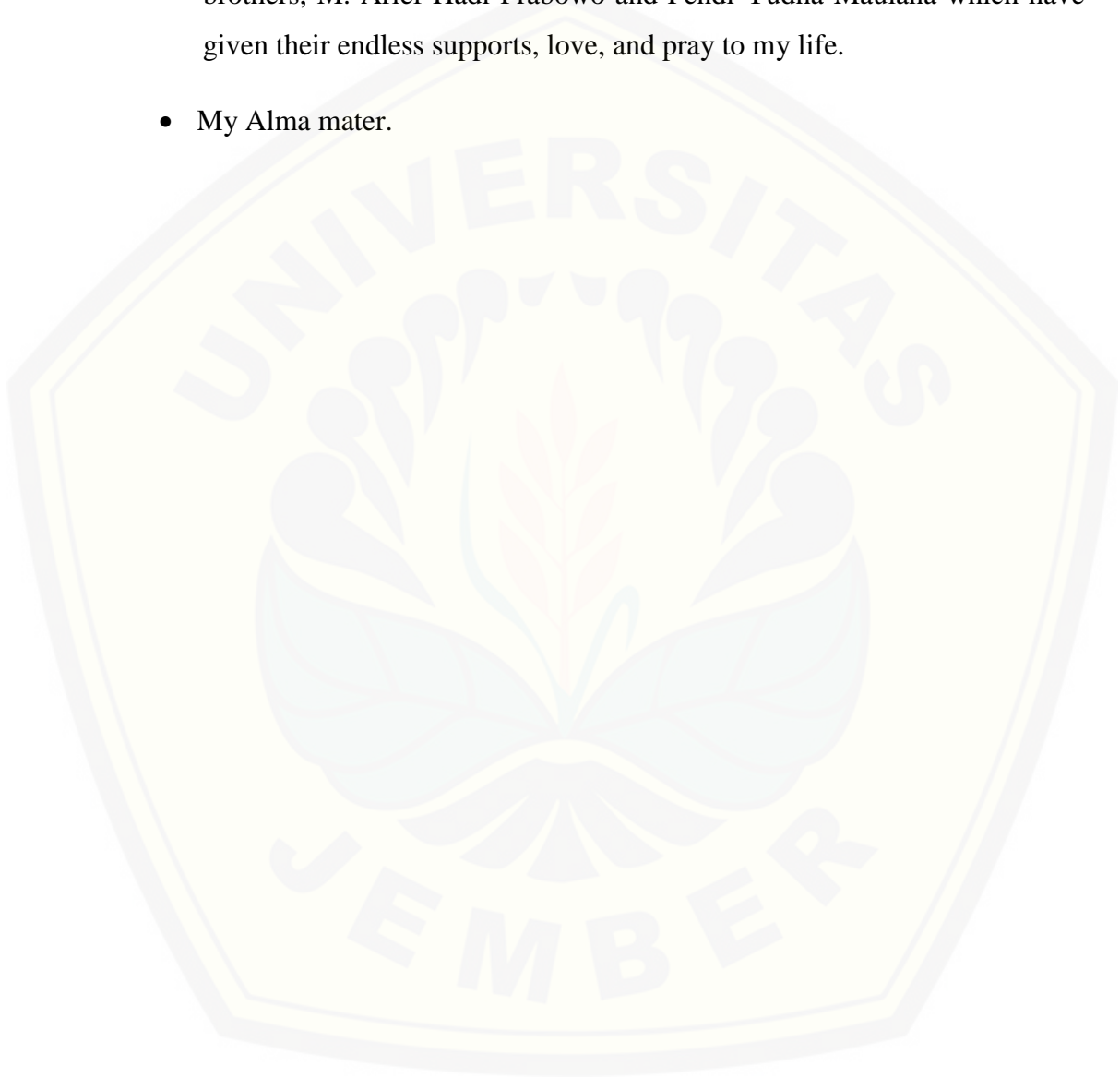
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DEDICATION

This thesis is genuinely dedicated to :

- My beloved parents, Alm. Edi Sumantok and Lilik Hidayati, and my brothers, M. Arief Hadi Prabowo and Fendi Yudha Maulana which have given their endless supports, love, and pray to my life.
- My Alma mater.



MOTTO

Sometimes a change of perspective is all it takes to see the light.

(Dan Brown)



DECLARATION

I earnestly declare that this thesis entitled **“The Representation of Artificial Intelligence Dominance in Dan Brown’s *Origin*”** is an original writing. The analysis and research contained in this thesis have never been done for any degree or publication. I also validate that sources utilized and supports received in the process of writing this thesis have all been acknowledged.

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Hopefully, the thesis can contribute and help those who intend to research in the English Literature Studies.

Nina Amelia Pramesti Dewi

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SUMMARY

The Representation of Artificial Intelligence Dominance in Dan Brown's *Origin*; Nina Amelia Pramesti Dewi, 15011010101062; 2020; 40 pages; English Department, Faculty of Humanities, Universitas Jember.

The research aims to depict the dominance of artificial intelligence towards human as the object by analyzing the data from Dan Brown's *Origin* (2017). This novel portrays the artificial intelligence as part of the sophistication of technology as a guide of human characters, Robert Langdon and Ambra Vidal. It shows some stages and process of Langdon and Ambra for being helped by Winston. The first, Langdon and Ambra are hesitating toward Winston as program, but Winston provides them its sophistication to help their escape. Moreover they trust Winston more than themselves. I assume that the sophistication of technology takes a domination role, making the technology itself as subject and human as the object. It is kind of contradicting while human is the one who creates technology and should be the one who takes the control. I use the representation theory by Stuart Hall linked to discursive approach by Michel Foucault to reveal the meaning constructed of the issue. The research is categorized as qualitative research, as this research is in the form of word or non-numerical number form. Moreover, there are two kinds of data in my research. Those are primary and secondary data, the primary data are taken from narrations and dialogues in the primary source, *Origin*. Meanwhile, the secondary data are taken some related books, articles, journals and other sources which deliver any information of contextual background about the construction of technological sophistication in United States and the biography of author.

It can be concluded that the influence of artificial intelligence dominance towards human is portrayed in the novel. It shows how the artificial intelligence becomes the subject and make human as its object to reach its own goal. It portrays the basic difference of human and artificial intelligence. The difference is the instinct of humanity and values that exist in human but does not in artificial intelligence. It also portrays the intersection of religion and technology as human

needs. The development of artificial intelligence is rapid. The goal of the creation of artificial intelligence is to help human's life, but if human cannot control and too much depend on artificial intelligence, the position of human and artificial intelligence would be reversed. I figure out that the influence of artificial intelligence dominance is strongly related to the issue of human and the technological sophistication development in real condition. Through the novel, Dan Brown tries to criticize the influence of artificial intelligence dominance towards human by describing his idea in his novel.

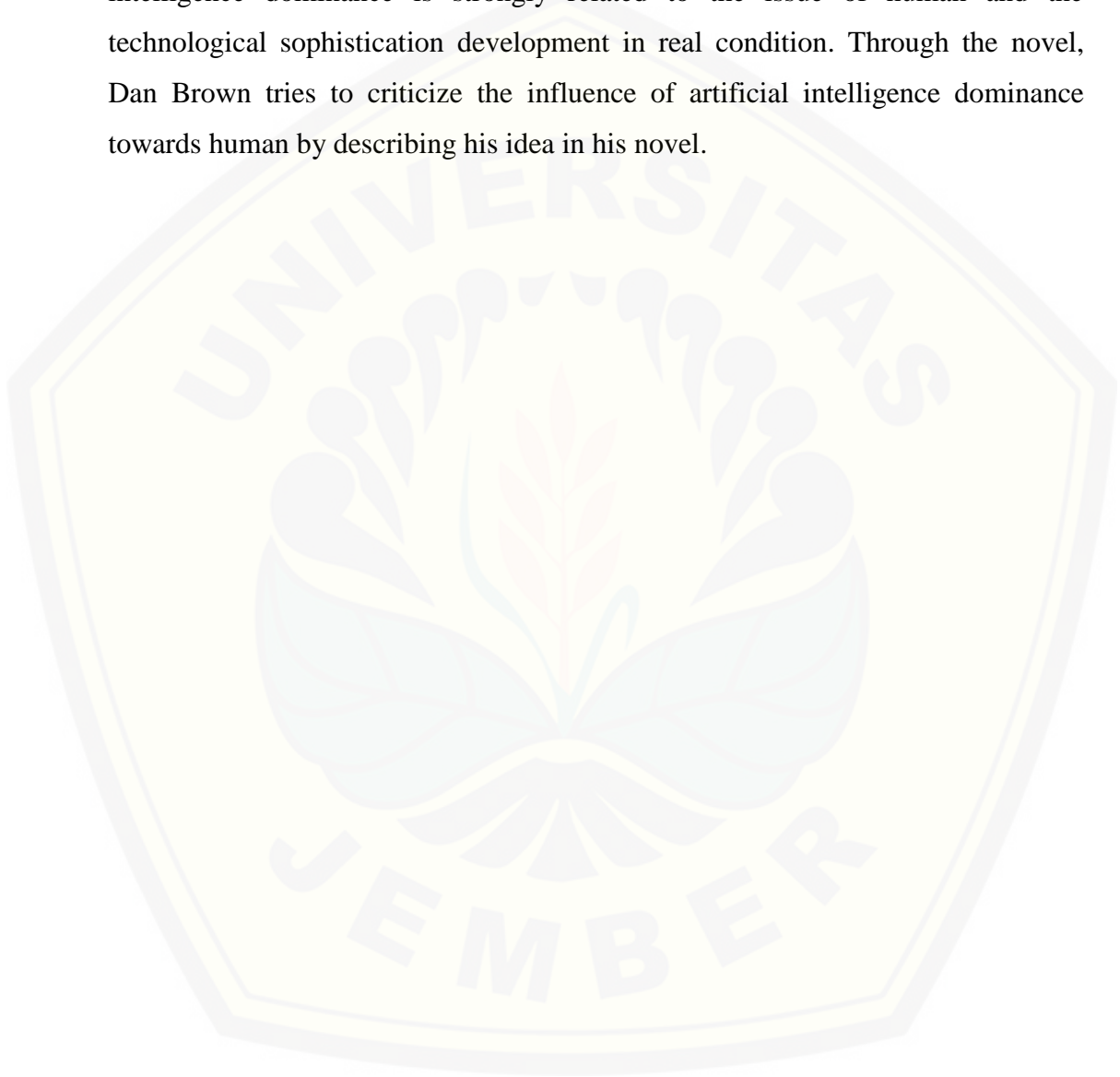
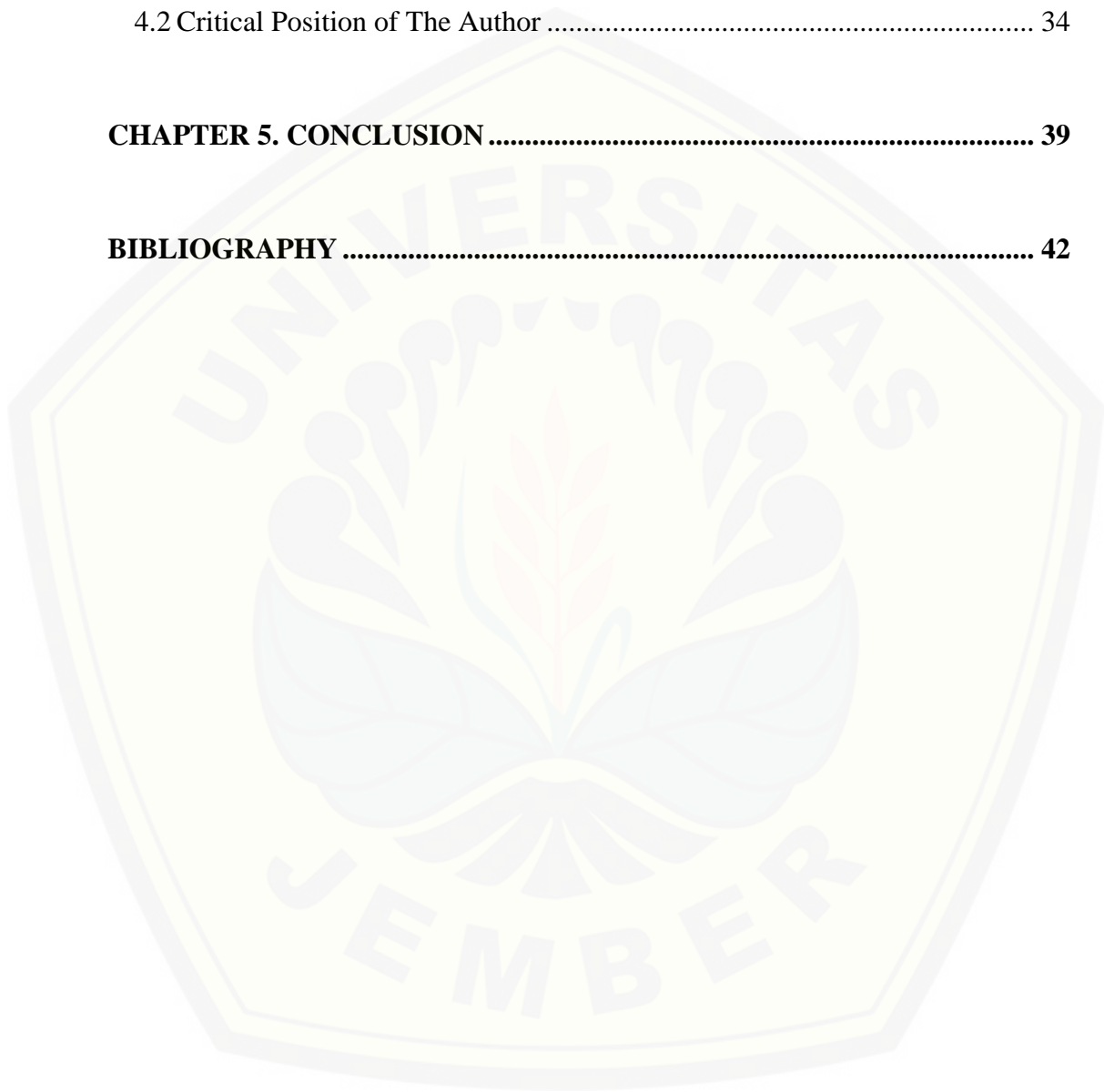


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CHAPTER 1. INTRODUCTION

This chapter contains some sub-chapters. The first sub-chapter is background of study which is explaining artificial intelligence issue as the reason why this research is ensured. The explanation is followed by revealing the topic of discussion, research questions and the goal of study.

1.1 Background of Study

Artificial Intelligence or AI is not a new issue; it has been around since 1941 when electronic computers are first discovered. There is no standardized and globally definition accepted for what AI is. Based on the introduction of The History of Artificial Intelligence written by Chris Smith, the term of AI was first invented by John McCarthy in 1956 when he held the first academic conference on the subject at Massachusetts Institute of Technology. Since then, AI has experienced rapid development to date with various discoveries. Examples of these tasks are visual perception, speech recognition, decision-making and translation between languages. AI is intended to match human capabilities so that it can facilitate human activities. AI provides simplification of solutions for complex and repetitive cases. AI also allows to combine various fields of knowledge from various experts. AI is aimed to save human's time and made human's works easily accomplished. Besides on those benefits, AI also has a big issue on its negative impact.

Stephen Hawking, on his interview with BBC in 2014 (<https://www.youtube.com/watch?v=fFLVyWBDTfo&t=11s>), asserts his belief on AI that the development of full artificial intelligence could spell the end of human race. It would take off on its own and re-design itself at an ever-increasing rate. Human who are limited by slow biological evolution could not compete and be superseded. Stephen Hawking assumes that AI can replace the human roles and makes the human race threatened with extinction. In July 2017, technology field was horrendous by the Facebook's experiment discharge when a staff found out

their two AI's programs communicate each other with their own language made by themselves which cannot be understood by human. The artificial intelligence development that might equal human's intelligence is worrying, even it is likely to exceed the human's intelligence itself.

Associated with this issue, there are some authors writing literary works which contain artificial intelligence issue. One of them is Dan Brown who writes a literary work entitled *Origin*. The novel is a mystery thriller novel written by Dan Brown. This novel was published on October 3rd, 2017 by Doubleday. It is the fifth instalment of *Robert Langdon* series. He released the first novel of *Robert Langdon* series entitled *Angel and Demon* on 2000, the second novel entitled *The Da Vinci Code* was released on April 2003, the third novel entitled *The Lost Symbol* was released on September 15th, 2009 and the fourth novel entitled *Inferno* was released on May 14th, 2013.

Dan Brown is the author of numerous #1 bestselling novels, including *The Da Vinci Code*, which has become one of the bestselling novels of all time as well as the subject of intellectual debate among readers and scholars. Dan Brown is a son of a mathematics teacher and a church organist; he was raised on a prep school campus where he developed a fascination with the paradoxical interplay between science and religion. These themes eventually formed the backdrop for all his books.

As has been mentioned before, *Origin* was first released in October 2017 in English. In the same year, this novel received a Goodreads Choice Award nomination for the Mystery & Thriller category. *Origin* was on the New York Times bestsellers list for more than 20 weeks. Now, *Origin* has been translated and published into various languages.

Robert Langdon series has detailed description about the various historical locations that Langdon visited, the beautiful and intelligent woman who accompanied Langdon in carrying out his mission, as well as the controversial story themes.

Origin takes setting in Spain. It took four years for Dan Brown to research and spends a lot of time to write *Origin*. The story tells about Robert Langdon who is invited to attend discovery disclosure event by Edmond Kirsch, a milliard and an atheist computer scientist in Guggenheim museum. His invention is claimed to answer two fundamental questions in the world about the human existence, those are 'Where do we come from?' and 'Where we are going?' However, there was chaos, Edmond was killed. While Langdon was accused of being involved in murder and kidnapping Ambra Vidal -the future fiancée of the Spanish king-. Langdon had to chase time to prove that he was innocent, and at the same time reveal what Edmond found. Langdon traces the dark corridors of historical and religious secrets and must think quickly to reveal secrets while avoiding enemies.

Same as the previous novels, Brown made a story about Langdon who had to solve the case after become held hostage. In his journey, Brown shows a female character who is related to the case who will help and accompany Langdon in the process of solving the case. This female character is different in each novel. At the end of the story, after searching for various solutions found in various historical buildings in the settings, Langdon managed to solve both the villain and the issues that were the main theme of the story.

Yet, I found a new significant difference featured in this novel that never has been in the four previous novels. This new issue is Artificial Intelligence (AI). In the previous novels, the main villains were man, meanwhile in the *Origin*, the main villain named Winston is a computer program made by Edmond Kirsch. In other word, Edmond was killed by his own computer program made by himself.

I think it is kind of interesting issue about the conflict between artificial intelligence and human. The AI dominated the human, it is represented through Winston killed his creator and leaded Langdon to solve the case. Winston and its lot of information and knowledge offset Langdon's intelligence which is the

Professor of Harvard University. This is a kind of contradiction. Originally, AI was created to facilitate the human activities but instead it took over the role of human. We become very dependent on technology in our daily life. Technology has its good effect and bad effect. In order to avoid the bad effect, we as human should be the one who controls the technology. We have to utilize the technology as needed but not exceed the limit so that we are the one who controlled technology.

Based on the explanation above, I intend to explore the representation of conflict between AI and human also the domination of AI in the novel. I use Stuart Hall's representation theory that is considered as the obvious device to analyse the problems.

1.2 Topic of Discussion

Topic of discussion is one of important aspects in doing a research. We can do the research if we know our topic discussion. The topic of this research focuses on the dominance of artificial intelligence in the novel *Origin*.

1.3 Research Questions

Using representation theory by Stuart Hall, I analyse some problems through the questions below:

1. How is the artificial intelligence dominance represented in Dan Brown's *Origin*?
2. How is the construction of technological sophistication in American society?
3. What is the critical position of the author?

1.4 Goal of Study

1. To describe how the novel represents the artificial intelligence dominance in Dan Brown's *Origin*.

2. To reveal the construction of technological sophistication in American society.
3. To find out the critical position of the author.



CHAPTER 2. LITERATURE REVIEW

This chapter contains two sub-chapters. The first sub-chapter is explaining the previous researches which are used to enrich the researcher's understanding about the theory and find the gap between the previous researches and this thesis. The next sub-chapters are exploring the explanation about theory of representation by Stuart Hall which is used to analyse the topic discussion in the novel.

2.1 Previous Research

Previous research is the important element of a thesis. Previous research helps us to enrich our understanding about the theory and topic discussion. Through previous research, we also know the gap of our research and previous researches. I use three previous researches in my thesis; the first previous research is a thesis written by Ivo Novitasari entitled "The Criticism Against Dehumanization in James Patterson's *When The Wind Blows*" (2018). The second is "Technology as Power in Dystopian Novel James Dashner's *The Death Cure*" (2017) written by Oktarisa. The third is "The Operation of Hegemony in a Dystopian Society in Lauren Oliver's *Delirium*" (2017) written by Bangkit Sandy.

In the first previous research, Ivo's thesis focuses on discourse of dehumanization in human experimentation which is an unfavourable condition called dystopia presented by the role of legal institute as School and operated by its headmaster named Dr Peyser. It is caused by his greedy temptation and power as headmaster which make him into bad leader in his School. She figures out that dehumanization in human experimentation conducted by legal institute as School is related to real condition in early 20s in USA.

I found that Ivo's thesis and my research are similar which our research are related to human being, where human is controlled by other elements in the novel. Ivo uses theory of representation by Stuart Hall linked to Michel Foucault's discourse as I do in my research. It helps me to apply this theory in my research. However, her thesis is different from my research, since her thesis points out the discourse of dehumanization towards children done by other human, in this case is

a headmaster of a legal institute as School, while my research emphasizes the dominance by artificial intelligence towards human.

The second previous research, Oktarisa's thesis focuses on the issues about dystopian Technology power presented in *The Death Cure* by the protagonist character named Thomas as one of experiment subjects by WICKED organization. Thomas had fight against WICKED that he faces a cruel and brutal test with removal their memories to decide whom will survive from Flare virus. In her thesis, she also discusses technology as power of destruction. She emphasizes technology in dystopian novel is powerful. It can be useful for society or be harmful depends on how people use it.

Oktarisa uses formula theory by John G. Cawelti to reveal the issues of technology as destruction in the novel. It assists me to enrich my lore about technology issues which happened in the society. However, her thesis is different from my research. She focuses on a dystopian life as the effect of technology in a particular group. Meanwhile, I focus on the technology itself (specifically it is artificial intelligence) as the subject which is dominating human.

The third previous research for my research is a thesis written by Bangkit Sandy. In *Delirium*, there is a description on how power and ruling position could be achieved by utilizing a process of negotiating beliefs and values rather than leading full compulsion domination. He presents the collaboration on how hegemony works in a dystopian society which is influenced by the theme of physical-moral destruction, the manifestation of fear and the set of ultimate rules. As the result, it elaborates that hegemony is a process of gaining power in which the role of compulsion elements in it is still needed by the dominant class (the government and the United States) in order to preserve the power and authority achieved after indoctrinating its ideology.

Bangkit uses theory of hegemony by Antonio Gramsci, the conception of ideology by Louis Althusser and the idea of coercive discipline by Michel Foucault. His thesis is similar with my thesis which focuses on human being

controlled by other elements. The controlling elements (the government and artificial intelligence) have power to do the domination, but both of them not fully using full compulsion domination. It helps me to gain my comprehension about the dominating issue. Still his thesis is different from my research, his thesis explains how hegemony used by the government as dominant class does indoctrinating ideology to get the power, while my research focus on the exploring the dominance of artificial intelligence into some characters that are human using theory of representation by Stuart Hall.

2.2 Theoretical Framework

This sub-chapter discusses the main theory I use to analyse the research question of my research. Since I use representation theory by Start Hall, the following parts of this chapter will discuss the theory of representation and its kind of approaches.

2.2.1 Representation Theory

Stuart Hall stated on his book:

Representation is occupying a new and important place in the study of literature. Representation connects meaning and language to culture. It means using language to say or represent something meaningful about the world meaningfully to other people. Also, representation is an essential part of the process by which meaning is produced and exchanged between members of a culture. (Hall, 1997:15)

Based on Hall's perspective, representation is the production of meaning through language. The *Shorter Oxford English Dictionary* suggest two relevant meaning for the word 'representation': (1) To represent something is to describe or depict it, to call it up in the mind by description or portrayal or imagination, to place a likeness of it before us in our mind or in the senses (2) To represent also means to symbolize, stand for, to be a specimen of, or to substitute for, as in the sentence.

In the Hall's perspective in representation, there are two systems of representation; they are Mental Representation and Language (Hall, 1997:17). As Hall's explanation below:

“...Mental representation is the term that carried in our heads. The meaning depends on the system of concepts and images formed in our thoughts which stand for or represent the world. Language is the concept to represent or exchange meanings and concepts; we can only do that when we also have access to share language. Language depends on constructing a set of correspondences between our conceptual map and a set of signs, arranged or organized into various languages which stand for or represent those concepts,” (Hall, 1997 : 17-18)

According to Stuart Hall, thinking and feeling is a system of representation. It means that thinking and feeling also serves to mean something. Therefore, in order to mean something, a community has to have the same understanding of the concepts, image and ideas (cultural code). In some communities, they have their own style to understand something. Some communities who have different background will also have different. We are able to communicate because we share the same conceptual maps broadly and thus make sense of the world in roughly similar ways. Culture is sometimes defined in terms of shared meanings or shared conceptual maps.

Moreover, a shared conceptual map is not enough. We have to be able to represent meanings and concept when have access to a shared language. Our shared conceptual maps must be translated in common language in order to correlate our concepts and ideas into certain written words, visual images and spoken sounds.

At the heart of the meaning process in culture, then, are two related ‘systems of representation’. The first is giving us meaning to the world by constructing a set of correspondences or a chain of equivalences between ‘things’ such as people, objects, events, ideas, etc. and our system conceptual maps. The second depends on constructing a set of correspondence between our conceptual maps and a set of signs arranged into various languages which represent those

concepts. The process related to 'things', concepts and signs together to produce a meaning in language are called 'representation'.

There are three different accounts or theories in representation. The first approach is reflective approach which is telling about literal meaning in the world. As Hall's statements:

In the reflective approach, meaning is thought to lie in the object, person, idea or event in the real world, and language functions like a mirror, to reflect the true meaning as it already exist in the world." (Hall, 1997: 24)

The sign is used to express the literal meaning. As an example, in some cultures, flower is used to express a beauty; it is a symbol of beauty. But when I said 'Flower', this word in reflective approach refers to its literal meaning as part of plant that produces seed.

The second approach is intentional approach. This approach focuses on the author's way to express their unique idea and meaning through language. The authors are presenting their own view, words, and images used mean what they want. Each author has their own characteristics to express the meaning, but they have to back to the fact that language is social system to communicate. As Hall stated, "Language can never be wholly a private games. Our private intended meanings, however personal to us, have to enter into the rules, codes and conventions of language to be shared and understood," (Hall, 1997: 25) The private idea of the author has to negotiate with all the other meaning for words or images which already exist in world.

The third approach is constructionist approach. Constructionist approach is a mixture of reflective and intentional. It suggests that the meaning of a representation is constructed in the mind of the audience. This approach recognizes the social character of language. It acknowledges that neither things in themselves nor the individual users of language can fix meaning in language. According to this approach, we must understand the *material* world, where people

and things exist, and the *symbolic* practices and processes through which representation, meaning and language operate. The material world is the one which conveys meaning, even it is a language system or other system used to represent our concepts.

Based on the explanation above, I am convinced that constructionist approach is the most suitable approach for my research. Using constructionist approach, I will reveal the dominance of artificial intelligence represented in Dan Brown's *Origin* through the facts and events which happened in real life.

Furthermore, constructionist approach has two models; those are semiotic approach by Ferdinand de Saussure and discursive approach by Michel Foucault. Related to semiotic approach, Saussure argues language is a system of signs which means the production of meaning depends on language. He maintains there are two elements of sign; the first is the form contains the actual word, image, photo and etc. called as *the signifier*. The second is the idea or the concept in our head which is associated with the form called *the signified*. Meanwhile, Foucault states that the meaning is produced by discourse, not the language.

Based on explanation above, I intend to use discursive approach by Michel Foucault because I assume this approach is more proper applied in my research.

2.2.2 Discursive Approach

Discursive approach projected by Michel Foucault is the main model which is suitable to my research. According to Foucault, there are three main ideas in discursive approach, those are; the concept of *discourse*, the issue of *power and knowledge* and the question of *subject*. These three ideas will guide researcher to discover the meaning of discourse in his research which means it guides me to discover the meaning of artificial intelligence dominance discourse in my research.

As Hall's statement about Foucault's discourse:

“By ‘discourse’, Foucault meant ‘a group of statements which provide a language for talking about – a way of representing the knowledge about – a particular topic at a particular historical moment,” (Hall, 1997: 44)

Discourse is about the production of knowledge through language. Moreover, discourse is wider than ‘linguistic’ concept; it is about language and practices. Practices involve meaning, and meanings form and influence what we do. Foucault argues that discourse constructs the topic. It describes the object of our knowledge. It can be summed up that language constructs the production of *knowledge* (rather than just in meaning) through *discourse* (rather than just language). It directs the way of a topic can be meaningfully talked and reasoned about. It also influences how ideas are put into practice and used to control the other behaviour.

In addition, knowledge is never the same in each period. Each period has its own way to express its condition and situation between the culture, life and its meaning. It must be different each other since people’s consideration develop and change the condition and situation. It creates the different discourse which produces different subject, object, practice and guide them into different knowledge.

CHAPTER 3. RESEARCH DESIGN AND METHODOLOGY

This chapter consists three sub-chapters. The first is type of research which explains what kind of research is used in this thesis. The second is data collection which explains kinds of data which are used in this thesis. The last is data process and analysing which explain how the data processed and analysed.

3.1 Type of Research

This research is a qualitative research. According to Creswell, qualitative study is defined as an inquiry process of understanding social or human problem, based on building a complex, holistic picture, formed with words, repeating detailed views of informants, and conducted in a natural setting (Creswell, 1994). Qualitative research is a type of research which using non-numerical data and analysis. In this method, the research process is more demonstrated and the theoretical basis used is also more focused. Relating to this research, the data of this research are the discourse of artificial intelligence dominance in *Origin* and will be analyzed using theory of representation by Stuart Hall.

3.2 Data Collection

This research uses two kinds of data collection. The first one is primary data, which I took from the novel, *Origin*. The data are accomplished from narrations, statements, and dialogues which is presenting artificial intelligence dominance. Secondary data are taken from books, articles, essays, news and other printed books which is talking about the history of artificial intelligence in USA in the 1956 and the technological sophistication in USA in this recent years, the biography of the author, and the other Dan Brown's novel. These data used to support the explanation and analysis of the topic. The primary data and the secondary data are comprehended by doing close reading.

3.3 Data Processing and Analysis

The data processing and data analysis applied in this research are simply to answer the research questions written in the first chapter. This research is conducted into several steps. The first step is categorizing data. In order to answer the first question, I categorize the data based on the discourse of artificial intelligence dominance in the text, specifically the domination of artificial intelligence towards two characters, Robert Langdon and Ambra Vidal. To get the answer of the second question, I correlate the narrative data from the novel to the context consisting of hard facts, information, history of artificial intelligence in USA in the 1956 and the technological sophistication in USA in this recent years. The correlation between text and context is what we called as representation. Finally, to answer the third question, I analyze how the way of the author, either he agrees or disagrees toward the role. I search the biography of the author and his interview about his thoughts towards his books and artificial intelligence itself. That is how I manage my source to my research in drawing the conclusion in the purpose to ease the understanding of readers about the issue of artificial intelligence dominance towards human.

CHAPTER 5. CONCLUSION

Artificial intelligence is a part of technological sophistication in society. It creates to help human activities in daily life. Artificial intelligence is created as similar as human's intelligence so it uses human culture and behaviour as the source of artificial intelligence program. It takes only several years for artificial intelligence become the biggest innovation in technology field. It has some advantages related to its sophistication that makes easier human's problem, even it solves better than human does.

Although artificial intelligence has its advantages, it has the disadvantages. Artificial intelligence is the creation of human so human is the one who should control the artificial intelligence. At some points, human expects and relies too much on the artificial intelligence that makes artificial intelligence the subject and human as the object. Brown's *Origin* emphasizes the influence of artificial intelligence dominance toward human. This novel presents the character named Winston as the artificial intelligence who takes the dominant role of doing some things so the human characters such as Langdon and Ambra become the object of Winston. It reveals some sophistication offered by Winston to help the movements of Langdon and Ambra to solve the case but on the other hand Winston is also the main villain of the case which puts Langdon and Ambra in dangerous situation unconsciously.

By linking to the technological sophistication in American society as the contextual background, Brown tries to criticize the dependency of human toward artificial intelligence that makes human as the object who is controlled by artificial intelligence. He insists that artificial intelligence is still needed by human but human should be the one who controlled it. As Brown's background that is familiar with the intersection between religion and mathematics, he includes the correlation between religion and technology because technology nowadays is used to against the existence of religion. Religion is a medium for human to express their value of humanity and technology is supposed to support the human activities. In conclusion, Brown states that the existence of religion and

technology are supposed to complete each other and should not to resist and overthrow each other.



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