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Research Paper

Psychoanalysis of Artificial Intelligence (AI): A New Field to Discuss in the Domain of Psychology

Dr. Neerja Singh[1]*, Anueta Ghai[2]

ABSTRACT

There appears to be no comparison between the study of artificial intelligence and the research of psychoanalysis. Psychoanalysis emphasizes the importance of the body, sexuality, and what comes from being born and raised in a family. Artificial intelligence, on the other hand, seeks principles that can be used by people and robots alike, rather than focusing on what makes us human. This is at the heart of AI's theoretical framework. One of the most intriguing aims in computer science today is to create artificially intelligent systems that can think and learn on its own. There are rising demands on robots to be able to answer more complicated questions. One of the numerous difficulties in achieving this goal is the sheer number of different meanings for the terms "learning" and "reasoning," making it easy for the solution to get lost in the shuffle. These principles, theories, and concepts are what we believe are essential to creating truly autonomous Artificial Intelligence (AI). A fully autonomous, learning, thinking and intelligent artificial brain needs hardware and software that mimics the procedures and components of the human brain, including ideas for instinctive and emotional memory. It is hypothesized in this research that the psychological foundations of artificial intelligence will materialize in machine consciousness.

Keywords: *Artificial Psychology, goal of AI, autonomous AI, mimic, artificial mind*

Artificial intelligence and psychoanalysis appear to be incomparably different fields of study. For psychoanalysis, the body, sexuality, and what comes from being born and reared in a family are the most important aspects of being human. Rather than focusing on what makes humans unique, artificial intelligence searches for principles that are applicable to both humans and machines. This is the core of AI's theoretical worldview.

They look to be worlds apart in another way. Artificial Intelligence (AI) appears to be intellectually ascendant, and its effect on cognitive science is increasingly determining the agenda for academic psychology. However, academic psychology rejects psychoanalysis, and it is at odds with psychiatry's prevailing biological trends. A new wave of interest in Freudian theory has emerged recently, but it has come from the realms of literary criticism and philosophy. In scientific circles, psychoanalysis seems like a frozen discipline, locked in

[1]Psychologist & Gerontologist, Lecturer Doon University, Dehradun Uttarakhand, India
[2]Counsellor
*Corresponding Author

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scientific jargon from another era and frozen in psychological assumptions from a different society.

When it comes to treating mental health issues, psychoanalysis is a set of beliefs and techniques] that deal in part with the unconscious mind. When Sigmund Freud founded the field in the early 1890s, it was based on his theory of personality development and psychoanalytic theory, which he developed. Josef Breuer's therapeutic work influenced Freud's work in a significant way. After Freud's death, many neo-Freudians, including Alfred Adler, Carl Gustav Jung, and Harry Stack Sullivan, continued to build on Freud's work, primarily through their pupils and collaborators. Many people question the efficacy of psychoanalysis as a form of treatment. It still has a significant impact on the field of psychotherapy, although it is no longer as widely practiced as it was in the mid-20th century. Many psychoanalytic principles are also frequently applied outside of the therapeutic field, including psychoanalytic literature critique and Freud-Marxism in the study of fairy tales, film, and more.

As compared to the cognition demonstrated by animals, including humans, this artificial intelligence (AI) is unique. It has been defined as a study of "intelligent agents," that relates to any system capable of understanding its surroundings and taking action to maximize its chances of success. For a long time, the term "artificial intelligence" was designated for robots that mimic and display "human" cognitive capabilities, such as Many AI researchers have rejected the idea that intellect can only be conveyed in a limited number of ways, and instead advocate for AI to be described in terms of reason and logic.

Many companies, such as Google, Amazon, and Netflix, use artificial intelligence. To put this way, as machines become more intelligent, formerly necessary "intelligence" employment will become obsolete. Because OCR has become so commonplace, it is often left out of the discussion when it comes to what constitutes artificial intelligence (AI).

Throughout the years after 1956, artificial intelligence has experienced several waves of optimism, accompanied by disillusionment (called as an "AI winter") and a new technique, fresh results and renewed funding. There have been numerous failed attempts at artificial intelligence research, including attempts to mimic human reasoning and problem solving through a computer's mimicry of the brain. Statistical deep learning has risen to prominence in the early twenty-first century. With this strategy, many difficult jobs have been solved in both industry and academics.

The study of artificial intelligence is divided into numerous subfields, each with its own objectives and methodologies. Reasoning, knowledge representation, planning, learning, natural language processing, perception, and the ability to control objects are some of the more conventional goals of artificial intelligence research. One of the long-term goals of this sector is the creation of general intelligence (the capacity to solve any problem). Researchers in AI have developed and used a wide range of AI tools to address these issues, including statistical models, neural networks, and formal logic systems. The progress of artificial intelligence relies on the contributions of other sciences, such as psychology and philosophy (AI). The field was founded on this assumption. “Human-like intellect has long been debated in philosophy, myth, and literature; now, in the age of science fiction and fantasy, that debate is being reignited. According to science fiction writers and futurologists, artificial intelligence (AI) could pose a grave threat to humanity in the future.

It is necessary for the "Artificial brain" to understand how these brain structures work in order to create and implement these structures and see them as a whole. There are many talents that we must learn in order to create a "artificial consciousness," for our system. When designing a complete artificial intelligence system, it's important to think about how people will react to the machine. In the same way, we must work to understand how AI systems will react to and perceive us in the future. "Artificial Psychology" will be investigated to better understand what having AI systems that approximate human intellect entails and when we should begin to worry about their "Psyche."

Artificial Intelligence

Psychology is the study of human thought and action. An Artificial Intelligence System (AIS) designed to be human-like is called an Artificial Psychology System. There are artificial cognitive processes that are necessary for a machine intelligence creature to learn, self-organize, and grow. Numerous subfields of psychology can be studied in depth. Consider the field of cognitive psychology, which focuses on understanding how the brain processes information. Learning, memory, perception, language, and reasoning fall under one umbrella. Determining what to think about people according to where they are in their developmental growth process is also a focus of developmental psychology. There is a field of study called sports psychology.

To create intelligent, autonomous, identity artificial cognitive systems, artificial psychology relates to the artificial thought patterns required. This study also investigates the relationship between a person's performance and performance. In order for the AIS to be intelligent, it needs to be able to mimic human behavior. Isn't the intelligence of humans at the very pinnacle of the scale? In 1963, Dan Curtis proposed the idea of "artificial psychology," a theoretical area of psychology. In order for artificial intelligence to reach the same level of complexity as human intellect, a system must meet three key criteria:

- **Condition 1:** The artificially intelligent system can make decisions based on new, abstract, and incomplete information without human supervision or contact.
- **Condition 2:** Even in the lack of complete knowledge, the advanced AI system can resolve contradictory programming and new information.
- **Condition 3:** It is not possible to meet either condition 1 or condition 2 unless the system was designed and implemented in a way that didn't account for unforeseen circumstances, such as those that weren't part of the initial design.

According to us, artificial intelligence systems can make decisions based on newly learned and inferred information stored as memories if all three conditions are met. Our current thinking is that a new science called Artificial Psychology is required to develop systems that meet these criteria.

A self-reprogramming or self-evolving artificially intelligent system cannot function without including AIS methods and techniques into its psychological constructs, hence artificial psychology is a must by definition for the system to function. Current artificial psychology theory does not consider how complex a system must be; rather, it assumes that the complexity is such that a software developer cannot capture the intelligence. As a result, this issue must be addressed using the same methods as humans. The question of whether intelligence is truly conscious is not addressed by artificial psychology.

What is Artificial Cognition?

Psychologists were restricted to behavioral psychology and its models of stimuli and responses when early cognitive approach objected to the then dominant idea that thought processes were unsuitable as subject of scientific study. Similarly, to the historic transition that occurred in 1950s, psychologists may identify this distinction. Fresh predictions and powerful models of the mind were made possible when cognitive psychologists were allowed to employ mental conceptions from fresh perspectives (such as Chomsky et al., 1959). It's possible to say things like, "I avoided the collision because the looming motorcycle captured my attention." Human behavior hypotheses can be investigated based on these explanations. It's possible to apply the same method to investigate machine behavior.

It is all about thinking when it comes to cognition. When it comes to learning and understanding, cognition refers to the process of thinking. Think, know, remember, judge, and solve problems are only a few examples of cognitive activities. The term artificial means the inhuman system is intelligent. Artificial cognition refers to how a computer program designed to mimic human intelligence acquires, processes, stores, retrieves and applies new information. How the information is received is equally important. Creating AIS that is as intricate as human thought is impossible. The ability to develop a truly intelligent machine may lead to a greater understanding of human processes. The inverse, it would appear, is also correct. Artificial Cognitive Science has been created as a result.

What is the purpose of cognitive artificial intelligence? This is the future, correct?

When discussing a collection of tools designed to improve human intelligence, the phrase "cognitive computing" is often used. We've been working with smart decision support systems since the internet boom began. In order to better evaluate a big amount of data, these systems simply utilize better data and algorithms as a result of recent technical breakthroughs.

Cognitive Computing can also be referred to as:

- Accurately reproducing and comprehending reasoning
- The study of human behavior and its simulation

Cognitive computing technology can help employees improve their human judgement in the workplace. Cognitive computing applications include speech recognition, sentiment classification, face detection, risk evaluation, and fraud detection, among other things.

Having learned about cognitive technologies, let's see how cognitive AI works.

Cognitive computing systems combine data from several sources with contextual and conflicting facts to produce the most accurate response. This is how cognitive systems learn about how the human brain works: by using data mining, pattern matching, and natural language (NLP).

Computer systems need a lot of data, both structured and unstructured, to solve problems which should be handled by people. There are many ways that cognitive systems can increase their ability to anticipate and predict new issues.

In order to achieve these capabilities, intelligent compute clusters must have a few key qualities.

- Adaptable: Cognitive processes must be able to adjust to new knowledge as it comes into existence. The systems must be able to process dynamic data in real time as the data and the environment change.
- Human-computer interaction (HCI) is a critical component of cognitive systems since it allows humans and computers to interact. To be truly useful, cognitive machines must be able to converse with and adapt to their users. Compatibility with other processor, devices, and cloud - based services is also necessary.
- These algorithms must be available for questions or bring in fresh data if they don't fully understand the issue at hand. For this, the systems look back at similar events in the past to draw inspiration.
- Contextual: Syntax, time and place are only some examples of contextual data that cognitive systems need to be aware of and be able to detect and mine. Structured and unstructured data, as well as visual, audio, and sensor data, may all be used.

Intuitiveness and Artificial Intuition

Trusting one's instincts is the simplest definition of intuition, and the most important. It's also possible to say that you should listen to your heart rather than your head. An approach to issue solving that is not logical is called intuition.

Monica Anderson states, "Because artificial intuition is not a high-level logic model, there is no model to get confused by the illogical bizarreness of the world."

"Artificial intuition is not a high-level logic model."

To avoid becoming bogged down by things like paradoxes, ambiguity, and disinformation, intuition-based systems can operate effectively. It doesn't rule out the possibility of a system producing wrong predictions owing to disinformation, but it does indicate that it doesn't need all knowledge to work. Disinformation can raise the risk of failure since intuition is

susceptible to inaccuracy. More often than not, the most accurate information prevails in a system that can handle multiple pieces of information simultaneously (some of which are more accurate than others). In humans and in AI-based systems in the future, this will happen. The definition of "most likely" is critical here. It is vulnerable to anchoring and/or accessibility heuristics if it relies solely on the system's prior experience. As a result, in order to facilitate the development of conceptual intuitions, it is necessary to give initial data and use intuitive guides/rules (heuristics).

When it comes to coping with the environment, our artificial intelligence system is meant to provide the essential cognitive insight. In our system's cognitive structure, the dialectical argument structure, established by the AIS to handle conflicting and confusing information, is included. So, our "cognitive intuition" can deal with our constantly changing surroundings. Israeli high-tech business Interview has built "artificial intuition" software, according to Wired.com. These tools "instantaneously assess any Arabic-language document, determine whether it contains content of a terrorist nature or intelligence value, and provide a first-tier Intelligence Analysis Report of the main requirement-relevant elements in the document." according to our company's web page. When it comes to making these kinds of judgments, do we have to infuse the AIS with our own emotions as well as our ability to "follow our gut"? "

Emotions in Humans vs. Machines

Human emotions are still mostly a product of our minds. According to Marvin Minsky, "The most frequently held belief is that emotions have no bearing on reality. There is a particular method of thinking for every emotional state. Because the underlying principle is that each of the major emotions is distinct in its own manner, the theory of feelings as such cannot be deemed comprehensive. There are a variety of management structures to choose from, depending on how you view the situation.

Most recent research suggests that the brain's emotional response to subliminal events is an explanation of those events for the conscious mind. The brain "explains" what occurred by triggering distinct emotional states, known as arousal states, in order to make sense of what happened (e.g., fear). Or, to put it differently, the AI system's emotions are a reflection of the current situation they find themselves in. Emotions can be better understood when viewed through the lens of arousal levels.

It is more likely that the person will be ready to obtain information, listen, learn, or solve an issue if they are in a calm and tranquil environment. Put yourself in a different emotion, such as panic, for a short period of time. Our ability to come up with complex problem-solving techniques is improbable while we are in a state of dread. Creating a safety plan and practicing evacuations are typically recommended while working with people. As a result, the brain is relieved of the burden of problem-solving during moments of stress or fear. Instead, we might simply follow the predetermined path. You may also think of an automotive collision as an example. If you're feeling nervous, your heart is racing, and your hands are shaking, it's probably not the best time to solve a calculus problem. It is common for people's emotional states to have an impact on both their perceptions and their behaviors. Depression, for instance, is a good example. If you are clinically depressed, it is doubtful that you will be able to simply focus on the positive sides of any given situation. A stronger sense of fear and melancholy is almost guaranteed. For example, if it's raining, a person who is depressed may decide to stay in bed even though they enjoy the rain, whereas someone

who is not depressed, even if they dislike the rain, may decide that the rain provides an opportunity for splashing around or carrying their favorite awning around with them.

And from the other hand, research have shown that in certain circumstances, a small amount of stress is good. According to the material presented here, our brains are programmed to pay attention to particular things and that feelings (especially stress and anxiety) are indicators that we must pay attention to certain things. As a result of their analysis of situational measurements, Crowder and Friess examined the use of synthetic emotional memories to provide long-term, implicit emotional reactions that operate as artificial subliminal primers. Emotions are states of being for artificial intelligences, just like they are for humans. Is it possible for a system to know how to allocate wealth so that it can return to an optimal condition after being overloaded? Can the negotiator keep things moving quickly enough to keep everyone calm in the face of looming disaster? An attack by a terrorist group could be used as a teaching tool. Intelligence sufficient to indicate an imminent attack on the nation is sufficient for AIS to expand resources. Anti-inflammatory medication may prompt us to seek medical assistance for modest chest pain. The choices we make are also affected by our level of attention. Similarly, if we have severe chest pain, we should seek medical assistance right away.

Basic Emotions

Bolte concluded in his book on Emotion and Intuition: "An emotional state's impact on a person's ability to make intuitive semantic coherence judgments was examined... When one is in a good mood, the activation of weak or distant links in memory is more evenly distributed, resulting in better intuitive coherence judgments. A good mood, on the other hand, has the tendency to restrict activation to close associations and dominant meaning of words, resulting in lower intuitive coherence evaluations."

Emotions and intuition have a direct correlation, according to psychologist Bolte. Using the artificial intelligence system (AIS), we may create a model of core emotions that allows the system to direct resources and seek solutions related to emotional reactions to its interactions with its surroundings. We define fundamental emotions as those that can be represented with their most basic forms, and this is exactly what we found. States of alertness and states of being are comparable in this regard. There are a variety of feelings that might be experienced, such as peace, alertness, stress, fear, or trauma.

If artificial intelligence would ever be able to sense feelings like humans is still a question that has yet to be answered. Keep in mind, however, that people's emotions are influenced by whether or not their desires are being met. The author of Nonviolent Communication highlights how emotions are based on fundamental human needs throughout the book. One such example is the human need to be socially interconnected. People feel loved and respected when they can fulfil this need. When the mind processes something subliminally, it might cause a physical reaction. In the instance of a machine, this seems unnecessary. Will those restrictions be considered obligations, or are they just guidelines?

To what extent would the goal be met if it was to satisfy the constraint or meet the limitation? The AIS would be aware of some sort of force. Would a need or a constraint cause the machine to become more arousing? Incorporating feelings into the system in response to the system's success or failure in achieving a goal or target is one option under consideration. It's as if something happens unintentionally, and the brain tries to explain it away by triggering a certain emotional response. Is it possible to give our AIS a sense of

intuition based on the data presented? Would it be able to surpass humans in activities wherein emotions play a role if we could do so?

Emotion and intuition are often confused, but is it feasible to tell the two apart? The issue is whether the AIS can predict things or solve problems without any need for high levels of arousal. No, and we propose the concept of an autonomic nerve system (AIS) and arousal levels inside the AIS to give the "emotion-like" features that are important to comply with environment. This subject focuses on human conceptions of artificial intelligence, especially when dealing with computers that display emotions. This debate raises questions about how humans view AI, particularly when dealing with machines that have emotions. When it comes to artificial intelligence, how would it see individuals and their emotional reactions?

How humans see artificial intelligence

It is argued by Nass and Moon, that humans blindly impose society's standards and expectations on computers. According to researchers, it's best not to react to all data that's out there. In the face of signals that set off scripts, labels, and assumptions from the past, we tend to act in a more direct manner. Nass and Moon recommend that three concepts be examined when studying human conceptions of AI.

In the first experiment, they show that people exploit social categories by using conceptualized gender norms and ethnic identification. Reciprocation and politeness are two examples of overlearned social skills that humans engage in when working with robots. These findings suggest that tagging can lead to early conceptual commitments in individuals. “Since individuals prefer human-to-human communication over computer-to human, Nass and Moon draw this conclusion. For example, Sarah Harmon shows that people's qualities, which may have been affected by gender and embodiment, were linked together rather than separated.

Her research shows a strong link between traits like being passive and being liked by men, understanding and being pleasant by both men and women, and dependability and being liked by men. Confounding factors, according to Harmon, should be taken into account. Human perceptions of traits like friendliness and optimism are strongly correlated with the degree to which entities, such as the terminal and the robot, are embodied. However, only the terminal exhibited an essential link in Understandable/Capable, Pleasant/Reliable, and Helpful/Reliable attributes. Consider the work of these writers, and you may infer that how AI is presented to people will impact how humans see it. In other words, even a car's GPS with a human name appears to take on a whole new significance. Numerous factors have a role in how people see computers and other artificial intelligence (AI) systems. Artificial Intelligence (AI) has yet to be presented in a way best understood by humans.

Acknowledgement of AI by the general public

We have seen both positive and negative reactions from people towards non-intelligent robots. On the one hand, AI technology has the potential to improve human performance. As previously said, in the case of national security risks, AI might help detect them. Artificial intelligence (AI) might potentially be utilised to teach our armed forces and assist in the resolution of complicated issues. On the other hand, artificial intelligence (AI) can do some human tasks. Take a look at how robots have changed the automotive business. Due to advancements in technology, machines may now do tasks previously performed by people. How far can artificial intelligence (AI) outperform humans? What will become of the

professions and duties currently performed by humans? As a result, people might either embrace or reject AI.

Like any new technology, there seems to be a training and usage curve. A deeper understanding of technology may be required by humans in order to interact with artificial intelligence (AI). Internet and mobile phone use and acceptance is clearly generational, and there could be different cultures in the adoption of AI. Just like with any other new technology, it may take a little time for humanity to accept AI systems into their daily life.

CONCLUSION

Anxiety about what the future will hold is readily evident. But this is valid in all fields of study, and it's important to remember that. Considering that AI has the potential to make people superhuman, we should take a minute to reflect on the morality and human reactions of AI. For artificial intelligence, artificial intelligence searches for principles that are applicable to both humans and machines. For psychoanalysis, the body, sexuality and what comes from being born and reared in a family are the most important aspects of being human. A new wave of interest in Freudian theory has emerged recently, but it has come from the realms of literary criticism and philosophy. As machines become more intelligent, formerly necessary "intelligence" employment will become obsolete. There have been numerous failed attempts to mimic human reasoning and problem solving through a computer's mimicry of the brain. According to science fiction writers and futurologists, artificial intelligence could pose a grave threat to humanity in the future. "Artificial Psychology" will investigate artificial intelligence systems that approximate human intellect. An Artificial Intelligence System (AIS) designed to be human-like is called an Artificial Psychology System. There are artificial cognitive processes that are necessary for a machine intelligence creature to learn, self-organize, and grow. Artificial Cognition is a collection of tools designed to improve human intelligence. The question of whether intelligence is truly conscious is not addressed by artificial psychology. Artificial cognition refers to how a computer program designed to mimic human intelligence acquires, processes, stores, retrieves and applies new information. Creating AIS that is as intricate as human thought is impossible. What is the purpose of cognitive artificial intelligence? Cognitive computing is the study of how computers learn about how the human brain works by using data mining, pattern matching, and natural language (NLP) to solve problems which should be handled by people. Cognitive computing applications include speech recognition, sentiment classification, face detection, risk evaluation, and fraud detection, among others. Monica Anderson: "Artificial intuition is not a high-level logic model, there is no model to get confused by the illogical bizarreness of the world". The most accurate information prevails in a system that can handle multiple pieces of information simultaneously (some of which are more accurate than others). In humans and in AI-based artificial intelligence systems in the future, this will happen. Marvin Minsky: The most frequently held belief is that emotions have no bearing on reality. There is a particular method of thinking for every emotional state. Emotions are states of being for artificial intelligences, just like they are for humans.

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