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Artificial Intelligence

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Abstract: ***We have chosen this topic to spotlight on one of the most technological trend these days known as AI(Artificial Intelligent). Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision. AI brings up images of high- functioning, human-like robots taking over the world, AI isn't intended to replace humans. Therefore we will discuss some of the most important aspects related to AI in which it will help in a better understanding of Artificial Intelligent and both its advantages and disadvantages to be able to protect ourselves from the upcoming technological trend.***

Keywords: AI, algorithms, open AI

I. INTRODUCTION

Artificial Intelligence is: the field of study that describe the capability of machine learning just like humans and the ability to respond to certain behaviours also known as (A.I.). The need of Artificial Intelligence is increasing every day. Since AI was first introduced to the market, it has been the reason of the quick change in technology and business fields. Computer scientist are predicting that by 2020, "85% of customer interactions will be managed without a human".

Artificial intelligence just like when we use Siri or Galaxy to ask about the weather temperature. It is very important to be prepared for AI revelation just like UAE have by installing a state minister for AI in Dubai. Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems. Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision.

AI manifests in a number of forms. A few examples are:

1) Chatbots use AI to understand customer problems faster and provide more efficient answers
2) Intelligent assistants use AI to parse critical information from large free-text datasets to improve scheduling
3) Recommendation engines can provide automated recommendations for TV shows based on users' viewing habits

AI is much more about the process and the capability for superpowered thinking and data analysis than it is about any particular format or function. Although AI brings up images of high-functioning, human-like robots taking over the world, AI isn't intended to replace humans. It's intended to significantly enhance human capabilities and contributions. That makes it a very valuable business asset. Artificial intelligence allows machines to model, and even improve upon, the capabilities of the human mind. From the development of self-driving cars to the proliferation of smart assistants like Siri and Alexa, AI is a growing part of everyday life. As a result, many tech companies across various industries are investing in artificially intelligent technologies.

II. WHAT ARE 4 TYPES OF AI?

Artificial intelligence can be categorized into one of four types.

1) Reactive AI uses algorithms to optimize outputs based on a set of inputs. Chess-playing AIs, for example, are reactive systems that optimize the best strategy to win the game. Reactive AI tends to be fairly static, unable to learn or adapt to novel situations. Thus, it will produce the same output given identical inputs.
2) Limited memory AI can adapt to past experience or update itself based on new observations or data. Often, the amount of updating is limited (hence the name), and the length of memory is relatively short. Autonomous vehicles, for example, can "read the road" and adapt to novel situations, even "learning" from past experience.
3) Theory-of-mind AI are fully-adaptive and have an extensive ability to learn and retain past experiences. These types of AI include advanced chat-bots that could pass the Turing Test, fooling a person into believing the AI was a human being. While advanced and impressive, these AI are not self-aware.
4) Self-aware AI, as the name suggests, become sentient and aware of their own existence. Still in the realm of science fiction, some experts believe that an AI will never become conscious or "alive".

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III. PROS AND CONS OF ARTIFICIAL INTELLIGENCE

AI offers reliability, cost- effectiveness, solve complicated problems, and make decisions; in addition, AI restrict data from getting lost. AI is applied nowadays in most fields whether business or engineering. One of the great tools in AI is called "reinforcement learning" which is based on testing success and failure in real life to increase the reliability of applications. Unfortunately, AI is limited with its capability and functionality. Although Artificial Intelligence made our lives much easier and saved us more time than ever, scientists are predicting that by the huge dependency on AI humanity could extinct. Scientists argue that by having a AI machines, people will be jobless and that will conclude in losing the sense of living. Since machines are learning and doing thigs more efficiently and effectively in a timely manner, this could be the reason of our extinction.

IV. AI ALGORITHMS AND MODELS

AI is mainly based on algorithms and models as a technique which is designed based on scientific findings such as math, statists, and biology (Li& Jiang, (n.d.)). AI works based on several models such as: Ant Colony Algorithm, Immune Algorithm, Fuzzy Algorithm, Decision Tree, Genetic Algorithm, Particle Swarm Algorithm, Neural Network, Deep Learning.

V. THE FUTURE: AI's IMPACT IS EVERYWHERE

Some sectors are at the beginning of AI. Regardless, the impact of artificial intelligence on our present-day lives is hard to ignore:

1) *Education:* Textbooks will get digitized or gotten already with the help of AI. Early-stage virtual instructors support human instructors, and facial analysis measures students' emotions to help determine who's struggling and better tailor the experience to their individual needs.
2) *Healthcare:* In the comparatively open AI field of healthcare, drug discovery is sped up and streamlined, diseases are more quickly and accurately diagnosed, virtual nursing assistants monitor patients, and big data analysis helps create a more accurate patient experience.
3) *Transportation:* Although it could take more time to perfect AIs for transportation, autonomous cars will one day transport us from place to place
4) *Manufacturing:* AI-powered robots work beside humans to perform a limited range of tasks like stacking and predictive analysis, assembly, and sensors to keep equipment running smoothly.
5) *Media:* Journalism is providing AI, too, and will continue to benefit from it.

VI. APPLICATIONS ON ARTIFICIAL INTELLIGENCE

AI can be designed using lots of algorithms. These algorithms help the system to determine the expected response which will basically tell the computer what to expect and work accordingly. Here are some of the greatest AI applications that we are probably using in our daily life without knowing.

1) Voice recognition
2) Virtual agents:
3) Machine learning platform

VII. CONCLUSION

First, we should be prepared for a change. Our conservative ways stand in the way of progress. AI is a new step that is very helpful to the society. Machines can do jobs that require detailed instructions followed and mental alertness. AI with its learning capabilities can accomplish those tasks but only if the worlds conservatives are ready to change and allow this to be a possibility. Secondly, we must be prepared to learn about the capabilities of AI. The more use we get out of the machines the less work is required by us. In turn less injuries and stress to human beings. Human beings are a species that learn by trying, and we must be prepared to give AI a chance seeing AI as a blessing, not an inhibition. Finally, we need to be prepared for the worst of AI. Something as revolutionary as AI is sure to have many kinks to work out. There are so many things that can go wrong with a new system so we must be as prepared as we can be for this new technology.AI programs can outperform human experts. Now the great challenge of AI is to find ways of representing the commonsense knowledge a nd experience that enable people to carry out everyday activities such as holding a wide-ranging conversation, or finding their way along a busy street. However, even though the fear of the machines are there, their capabilities are infinite Whatever we teach AI, they will suggest in the future if a positive outcome arrives from it. AI are like children that need to be taught to be kind, well mannered, and intelligent. If they are to make important decisions, they should be wise. We as citizens need to make sure AI programmers are keeping things on the level. We should be sure they are doing the job correctly, so that no future accidents occur.

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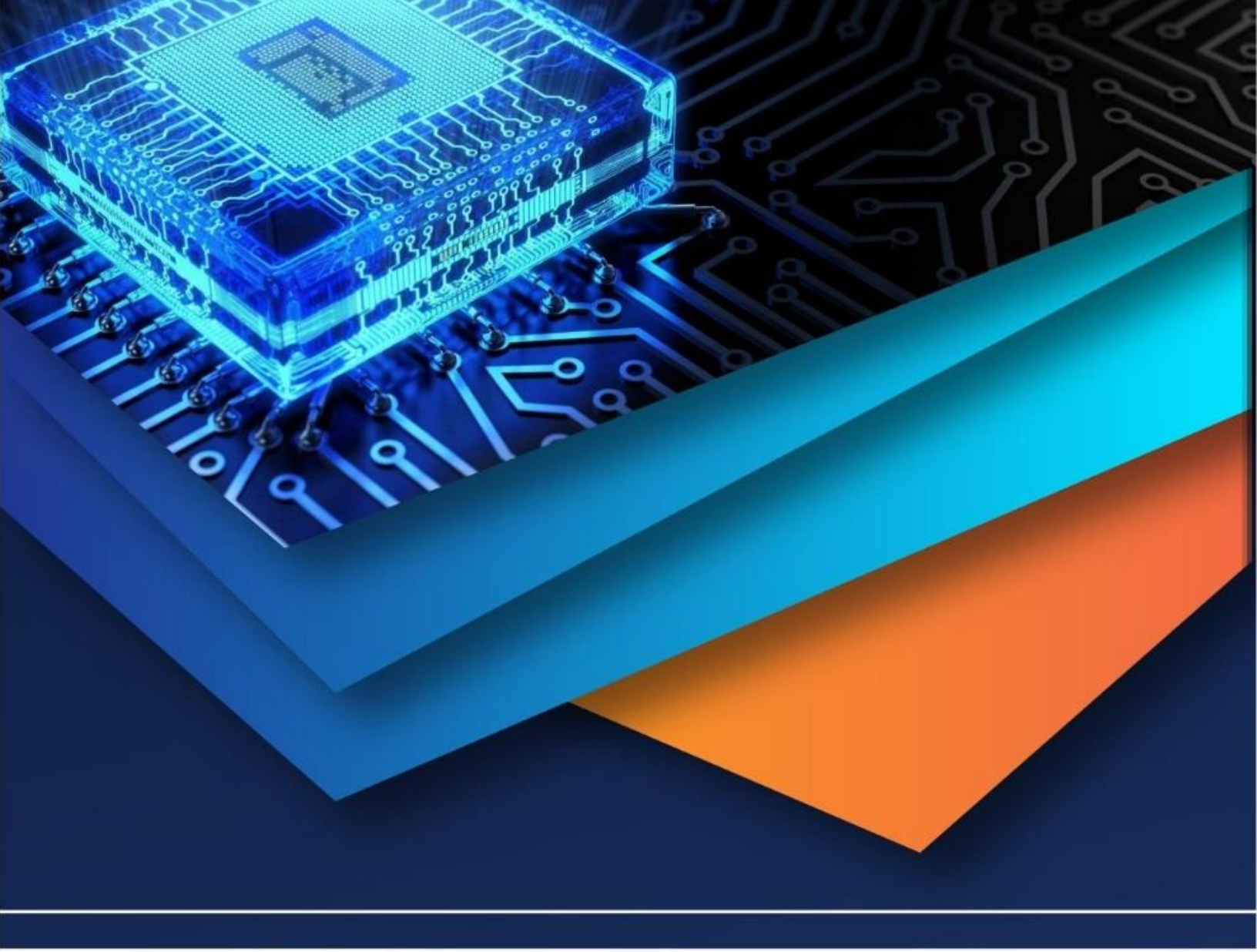

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