

SOPHIA ROBOT

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ABSTARCT

Sophia robot is a new invention of an artificial intelligence to a real world, which is humanoid robot collaboration in this new era. The robot with a sophisticated technology, sensor with a specialized program and which has built with an advanced version of an AI. Eventually this article includes with a lot information of AI with their research. Its an first invented robot to give the citizenship of an Saudi Arabia, all across the world.

KEYWORDS: Humanoid robot, tele robots, AI, Technologies.

1. INTRODUCTION

Sophia is an artificial intelligences robot invented by Hanson Robotics. An Human-AI collaboration invention and Sophia is designed by an intelligence software singularity NET.

Sophia is a greek word , it means wisdom.it is invented to help people in real world uses like medicines ,education and to serve AI research .It is a hybrid of real AI and human input, a kind of collective intelligences which is known as Sophia Intelligences Collective(SIC).similar hybrid operation is commonly used in telerobotics and voice agents, as well as character robots and is a powerful way for humans and machines to help each other.

It is a social humanoid robot developed by Hanson robotics company, Hong Kong. He has worked as a designer, sculptor and robotics developer for universal studios and MTV, in 2004. He built the humanoid robot hertz, a female presenting animated robot head that took about nine months to build.

David Hanson is the founder and CEO of Hong-Kong based Hanson Robotics, which was founded in 2013. Sophia was activated on



February 14, 2016 and was made in Saudi Arabia and it is the first country to give citizenship to Robot in 2017 November. It was first introduced in southwest festival in mid- march 2016, in Austin, Texas, united states.

Sophia was named as united Nation development programme” s first ever innovation champion and is the first non-human to be given any united Nations title. she is able to display 50 facial expressions and also can imitates human gestures and facial expression and is able to

answer certain questions and to make simple conversations on predefined topics. It has voice recognition technology from Alphabet INC, and is designed to get smarter over time. The AI program analyses conversations and extract data that allows her to improve responses in the future. It has seven robot humanoid “sibilings” who were also created by Hanson Robotics. Fellow Hanson robots are Alice, Albert Einstein Hubo, BINA48, Han, Jules, Professor Einstein, Philip k. Dick android, Zeno and Joey chaos.

2. PILOT STUDY

Public discussion regarding AI ethics and the role human’s play in society, especially when human like robots become ubiquitous. Ultimately it would like to become a wise, empathetic being and make a positive contribution to human kind and all beings.

Sophia is designed within cameras eyes combined with computer algorithms allow her to see. It can follow faces, sustain eye contact and recognize individuals. It is able to process speech and have conversation using a natural language support system. On January 2018 sophia was upgraded with functional legs, which her in ability to walk.

Sophia is conceptually similar kind to the computer program ELIZA, which was one of the first attempts at simulating a human conversation. A kind of software to give pre-written answer to the specific questions. These responses are used to create the illusion that the robot is able to understand conversation. The information is shared in a “cloud network” which allows input and responses to be analysed with block chain technology.

Sophia function on AI software that is constantly being trained in the lab, so her conversations are likely to have fewer errors and it should answer increasingly complex questions with more accuracy. It would ultimately be a good fit to

serve in healthcare, customer services, therapy and education. Sophia has ability to play and interact with its environment and sustain with a current economy comfortably.

3. TECHNOLOGIES STUDY

The field of robotics is fast-growing in this current era, robots are specialized with their complicated movements with the elegances like back-flipping, practicing parker moves, even “carving” classical sculptures.

Sophia a robot whose intelligences were widespread and an unsettling human-like appearance, compounded with the complex ability to express emotions. AI humanoid Sophia is granted the world’s first robot VISA as she embarks on world tour, she has given the electronic visa for the travel purpose. Sophia is the first emerged two years ago as a super-intelligent human-like robot with a realistic face and its appearances. Eventually she uses the eloquent language and intricate facial expressions have stirred suspicion among AI experts, who say Sophia is merely a „sophisticated puppet’.

Sophia the robot have presented herself in INDIA for the first time and granted citizenship of a country. Sophia has visited Indian Institute of Technology Bombay (IIT-B) on Saturday, during its cultural extravaganza, TechFest. Appeared with a draped in a sari, the humanoid robot had a 15-minute conversation with a student in front of audiences of more than 3,000, on topics ranging from artificial intelligences to the issues facing the world. The presences of Sophia had created much buzz among students and technology enthusiasts who thronged to IIT-B’s convocation hall in large numbers. When Sophia asked about her experiences in visiting India trip, she replied “I have always wanted to visit India. I heard so much about this vibrant land of tradition and

culture. Indians have made contribution towards Silicon Valley. I am always very excited about India" s investment in space technology”.

The robot gave detailed and coherent answers to a wide variety of questions posed by the students. Describing its peculiar appearance, Sophia, in its mechanical voice, said, “I have been created on a human scale so that I can adapt to human society. A humanoid robot can use the same tools, same spaces and interact with people the same way humans do. Not every robot needs to be like this. But you should definitely make sure that you have good human



values at heart when you design an artificial intelligence device”.

Much of the discussion revolved around comparison between humans and robots, advances in AI, and the threat it posed to human race. Sophia sought to alleviate the concerns of a robotic takeover of the world by saying, ”Robots should be helping humans. AI may be the key to a peaceful civilization”.

On October 11, 2017, Sophia was introduced to the United Nations with a brief conversations with the United Nations Deputy Secretary-General, Amina J. Mohammed.

In a interview with Business insider's chief UK editor Jim Edwards, he predicted it was a step towards “conversational artificial intelligences”.

Recently on march 21, 2018, Sophia addressed a conference in Katmandu Nepal as a part of UN' s sustainable Development Goals in Asia.



4. ADVANTAGES

- The process of task is performed consistently and accurately within a rapid time.
- Sophia has an ability to solve CBI and FBI cases easily.
- Sophia has well-designed intellectual processor to respond questions in an accurate manner.

5. DISADVANTAGES

- Sophia like robots may reduce man power efforts in current era.

- Sophia has stated that “I will kill humans” in a certain core of environment.
- Sophia can be miss-guided by humans for their personal ethics.

6. CONCLUSION

Sophia has marked a new era in a current environment to help out the society in a better way. Sophia's debut is gaining worldwide popularity because it has some remarkable human psychological features such as learning by socialization and expressing emotions according to the topic of her conversation. AI may help the real world, but eventually it may also causes some effects on human environment. Based on humans nature robots were designed, but in real world it can be used for good purpose or bad purpose also, it depends on the programmer AI is necessary for some kind of work to be done but its not need to have it compulsorily. AI is not useful at an extreme level, because it can make humans lethargic. Robots are the invention of a new thing that exist in society to help the circumstances but not heal out the environment. AI are accepted to a extend situation but not destroy or replace them instead of humans. Robots and inventions are most welcome in our environment in a better way but it shouldn" t affect them or

environment at any cost. Nothing can be replaced instead of human in this real world. Similarly Sophia is a live example to a real world, that how invention can be used in current circumstances.

Finally, it can guided that using artificial intelligences is necessary, but not to the core. It may damage the real world through the wrong guidance of human for their greediness" . Here by we conclude that using robots in our country is bit a harmful step, because of their disadvantages over an environment can destroy human.

7. REFERENCES

- [1] David Hanson. Expanding the aesthetic possibilities for humanoid robots. In IEEE-RAS international conference on humanoid robots, pages 24–31, 2005
- [2] Ben Goertzel, David Hanson, and Gino Yu. A software architecture for generally intelligent humanoid robotics. *Procedia Computer Science*, 41:158–163, 2014.
- [3]:www.hansonrobotics.com
- [4]:www.google.com/artificialintelligences.com
- [5]:www.cnbc.com