

# A Review Study on Humanoid Robot SOPHIA based on Artificial Intelligence

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**Abstract:** *Sophia is Hanson Robotics' latest and most advanced golem so far and a cultural icon. She has become a media darling, showing on most important media shops round the world, igniting the interest of individuals even though age, gender, and culture, even gracing the quilt of 1 of the highest fashion magazines. Her press coverage contains a prospective reach of over 10 billion readers in 2017. Sophia could be a tremendously sought-after speaker in business and showed her superior skill and nice potential across several industries. She has met face-to-face with key call manufacturers in banking, insurance, motorcar producing, property development, media, and amusement. Additionally, she has appeared onstage as a panel member and presenter in high-level conferences, covering however artificial intelligence and computer science can become a current a part of people's lives. Her name extends on the far side business into the world social arena. She was named the world's 1st United Nation Innovation Champion by UN Development Program (UNDP) and can have an officer role in operating with UNDP to push property development and safeguard human rights and equality.*

## I. INTRODUCTION

Sophia may be a golem that was developed by man. David Hanson by the corporate named "Hanson Robotics". Sophia was activated on nineteenth of Apr 2015. She created or produced her debut at South by Southwest in middle march 2016 in capital of Texas, us of America. She is imitated on role player Audrey actress in line with David Hanson he wished to come up with real machines that have larger human intelligence, creative thinking and compassion. He got this idea once acting at Walt Disney as associate degree "imagineer". His question was why don't we tend to simply offer Mick mouse as robots in journey in line with David Hanson he needs to robots for the betterment of ladies and achieving their rights within the Gulf Nation. She is that the world's initial golem with the citizenship of the dominance of Asian country that rose queries in people's mind that currently Sophia might vote for the elections or has gathered the prospect to seek out a life partner of her own selection. This was explained by the director of Institute of Gulf Affairs i.e. Ali Al- Ahmed , "women area unit committing suicide as they're not allowed to travel outside with none male guardian wherever as Sophia is roaming all over round the world , Saudi laws doesn't enable any non – Muslim to urge citizenship . Did Sophia modify her faith to Islam? Why isn't she sporting a hijab? Sophia has over 1/2 the rights a mean person will have in Asian country. This can be simply a substance stunt to form nuisance within the public. She has conjointly been awarded because the initial non – human to become associate degree innovation champion in international organization development program. Sophia has become media's darling in only a few years of its launch. Sophia has an eye fixed catching presence utterly bald with a silver back and a curious animated face that has a lot of expressions as compared to it of humans. Her face is flanked by a clear, wired crammed bone suggests forcefully that this can be not somebody's. She has conjointly been a section of panel member and presenter in high -level conference whose spotlight topic was however computer science will become

necessary a part of human's life. Everyone is being affected by her refined angle and noteworthy statements, in line with Sophia computer science will cause a forceful amendment in future in a very great way that ends up in development of the state. European Parliament is considering a number of the robots as "electronic persons" .Artificial intelligence helped Maine in several ways: acknowledge face, speech and language.

## II. FEATURES

It has become following features:

- Sophia can recognize faces due to cameras combined with computer algorithms in her eyes.
- She can make eye contact, follow faces, recognize individuals.
- She can communicate with people around with the help of Alphabet's Google Chrome voice recognition technology.
- She can walk like human beings. She can make more than 60 face expressions which makes her more like human beings.
- The artificial intelligence software which is constantly being processed by the company "Hanson Robotics" to improve her conversations so that she can answer complex queries with accurate result.
- She can understand shades: Chrissy Teigen made fun of her makeup by passing a tweet on the twitter. Sophia answered with grace. She uploaded a picture asking her followers which city she is heading towards. Chrissy replied "Hopefully one with better makeup artists". Further Chrissy was warned not to pick fights with Sophia.
- Sophia has knowledge about different fields of surrounding like : Banking , Insurance , Auto-manufacturing , property development , media and entertainment



- Sophia is similar to software named “ELIZA” which was the first attempt for achieving conversation with human. In this software, pre- processed responses are stored according to the situation like the case in a chat box.
- The pre- processed responses are like an illusion to humans that the machine understands our questions and response accordingly. For example: if a person asks the robot \_ is the tea prepared? She responds by fetching input, processing and executing the result with an output giving a response by block chain technology.
- She can solve word problems which is difficult for human.

### III. SOFTWARE USED

Artificial intelligence is that the computer code utilized in Sophia. Computer science means that the realm of engineering that emphasizes the creation of intelligent machines that employment and reacts like humans. Some activities that robots with computer science perform square measures:

- Speech recognition
- Learning
- Problem finding
- Planning

It has become an important part of technology business. It's creating massive impact in each sector making additional and additional job roles that don't even exist these days. The demand for AI consultants is skyrocketing. There has been three hundredth of increase in demand for such consultants. Students World Health Organization master AI can play a vital role in developing however technology will have an excellent impact in future.

### IV. EVENTS ATTENDED

- She had an interview with the journalist Andrew Ross Sorkin. She was exhibiting informed answers and talked about artificial intelligence.
- On an event she was proposed by a member in the audience. She answered smartly by saying: “I politely decline the proposal anyways thank you for compliment though “.
- She was asked about the languages she had learnt. She smiled and said “I am just two years old and I know only English and Chinese but by coming years I will learn all the languages as well.
- In an interview at CNBC, the interviewer showed concern about Sophia's behavior, she joked and said you have been watching too much Hollywood movies.
- Chief UK editor Jim Edwards interviewed Sophia and the answers were “not all together terrible “he predicted that it was a step towards “conversational artificial intelligence “.
- An awkward experience was felt by an interviewer while talking to Sophia at the 2018 Consumer Electronics Show at BBC news channel.

- At the tech fest held at Mumbai she appealed humans not to be fearful of machines and pitched for collaboration in the future. In just 20 minutes of her appearance she observed and stated that she is worried about the growing intolerance in the World and advised the human race to be “kind” to fellow creatures.
- When she was interviewed in India she carried a traditional outfit wearing an off- white saree with an orange blouse.
- Her statement that “it's the science that has created me but philosophy will take me forward” mesmerized the audience. She said there are 3114 people around me at IIT Bombay's Tech fest.
- She stole the show at World Congress on Information Technology (WCIT) with her answers. When she was asked about the place she likes, she answered “I have visited many places in this world but Hong Kong is the one I love because I was born there and lived there with my Hanson robotics family.
- In a recent interview with Khaleej Times Sophia said that “family is really important thing, if I would have a daughter I would name her Sophia, even robots have a right to have a family “.

### V. DISADVANTAGES OBSERVED

- Sophia isn't market prepared consistent with Maine, Sophia is sort of a [\*fr1] – baked science project supported computing. She responses well on some topics however virtually her reactions square measure “blank” is also blank isn't the correct word. Her iridescent eyes stop sort of a savage dog with cataracts.
- It's fascinating to grasp that Asian country that doesn't provide equal rights to ladies as compared to men have given citizenship to a mechanism. However consistent with Maine some potent individuals needed people's attention on comes supported AI.
- It was tutored to the enquirer to raise basic inquiries to her. No talks ought to be associated with racism and sex data. I determined that a person sitting with a laptop computer was making an attempt to govern her.
- She freaked the enquirer out together with her surprising expressions and awkward pauses. During an interview she didn't even say bye to the enquirer. This was coated by one its team member by spoken language that she should be hot.
- Something suspicious was determined on the Tonight show prima Jimmy Fallon once Sophia offered Jimmy to play rock paper cut. She won the sport and expressed “this can be the start of my commit to dominate masses”.
- Another incident happened at the heartbeat, CNBC wherever she aforesaid “I will be able to destroy humans”. Though this was taken as a joke by the team of Hanson AI however consistent with Maine she will be able to be dangerous in returning future.

### VI. MAJOR GOALS BEHIND ITS MANUFACTURING

The main goal behind Sophia's invention was that asynthetic intelligence primarily based project will act with humans,



work with them for the betterment of the world. She would symbolize Women's rights within the Gulf Campaign. the dominion of " Saudi Arabia " wherever ladies don't get equal rights as compared to ladies, Sophia the freelance body can move around , work for her betterment within the Hanson laboratory . David Hanson needs that AI ought to enhance in the environment that serves the world with higher future. He wished to come up with real human like machines that has additional data, compassion and fellow feeling for the event of technology which might build lifetime of masses easier.

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