Project Report 3

"AI can possess a sense of humor?" means an intelligence demonstrated by machines can have the ability to perform funny things. They can be aware of jokes and enjoy doing funny things. Can AI do that? Could we make a robot with a sense of humor?

While in the 50s and 60s when the concept of AI was born, the idea was to replicate the human mind in a computer, the concept has made a turn-over the past few years. It is highly unlikely it will be possible to build an Artificial Intelligence that can resemble the way humans reason and interpret the world, unless we are fully capable of understanding the human brain, its functions and the way we think, reason and perform other cognitive functions.

Let's first determine what artificial intelligence is. Artificial Intelligence is a comprehensive field that is aimed at imitating such complex human abilities, as language, speech, vision, the ability to give relevant answers and recommendations based on assumptions. In layman's terms, artificial intelligence is often used to replace humans in carrying out certain tasks.

The latest work with AI machines is expanding the new field of computational humor. Humor is a uniquely human quality. Most people can recognize funny sentences, incident, pictures, videos, and so on. But it is not always easy to say why these things are humorous. So, it's easy to imagine that humor will be one of the last bastions that separate humans from machines. Computers, the thinking goes, cannot possibly develop a sense of humor until they can grasp the subtleties of our rich social and cultural settings. And even the most powerful AI machines are surely a long way from that.

That thinking may soon have to change. Today, Arjun Chandrasekaran from Virginia Tech and pals have already submitted an article "We Are Humor Beings: Understanding and Predicting Visual Humor". They've trained a machine-learning algorithm using computer Vision and Pattern Recognition to recognize humorous scenes and even to create them. They say their machine can accurately predict when a scene is funny and when it is not, even though it knows nothing of the social context of what it is seeing.

The team has an interesting approach that could lead to some fascinating applications. The ability to judge the humor in a scene could help researchers develop better photo editing tools, tools that choose funny pictures to post on social media, or even smart cameras that can pic better moments to take humorous pictures.

The vivid example of artificial intelligence application in real life is a chatbot. Chatbots are conversational applications utilized by e-commerce and other businesses present online and able to communicate with customers, answer their questions, recommend products and more.

Siri is a virtual assistant (just like chatbots) that is be able to recognize voice queries, give relevant answers to user's questions, send messages and make calls. Siri is a good example of narrow intelligence. Siri brings several narrow AI techniques. It works on primarily 2 technologies-speech recognition and natural language processing. In recent years, deep learning has proven to produce phenomenal results in speech recognition. The word error rate of speech recognition engines has drastically gone down to less than 10%. This has been possible due to the availability of not only large datasets, but also powerful hardware using speech recognition algorithms that can be trained on the datasets.

Another real-world example is **Witscript**, a computer software that can write a joke story. Right now, the jokes it makes aren't very sophisticated. But as research in artificial general intelligence (AGI) advances, Witscript can learn to create smarter jokes. Witscript is a road map to a computer with a sense of humor, like a witty human companion. Witscript also represents a new approach to computational creativity.

So yes, I think AI can have a sense of humor, but to do so we'll have to give it a bit of pleasure at seeing unexpected incongruity (within certain bounds), incongruous use of homophones, etc. I believe that this will be one of the single most difficult aspects of creating social AI.

Yes, computers will have a sense of humor, and sooner than you think. That's because there are algorithms for writing jokes, the same way that there were algorithms that let IBM's Watson beat human champions at Jeopardy.

Overall, humor can benefit us physically and emotionally. "When done well, humor can have a significant positive effect on our life". Humans always give their next generation the best they can give. We already have Laptops, Chips etc. which our fathers give us. And what will we give our children? This thing, A strong AI which can make higher level AI. Perhaps one day, machines may even share the joke.

Resources:

- MIT Technology Review – AI Algorithm identifies humorous pictures
- Joe Toplyn's blog – Can a computer write a joke?
- Ted-Idea – Can you teach a computer to be funny?
- Ted-Talk – Machines need an algorithm for humor. This is what it looks like.
- Unbabel.Com – Can AI understand jokes?