Chapter 13

CHEERBOT: A Step Ahead of Conventional ChatBot

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ABSTRACT

The objective of this chapter is to discuss the authors’ interaction and involvement with technology and bots, opening a whole new and wide scope of possibilities while letting bots comfort us. The prevalence of bots and automation is increasing by every passing day – Cortana, Siri have been here for a long time and have now been overtaken by Alexa and other home automation systems that provide a two-way dialogue conversations. This chapter explores the possibilities of creating bots that can cheer us up when we are sad. Analyzing the semantics of our sentences and analyzing the pitch of our voice to identify our emotional state, and then providing an n-way dialogue conversation, relevant to the then existing context, instead of the mundane two-way dialogue conversation is the lucid content of this chapter. Summing it up, this chapter examines the possibility of creating bots that can serve as an emotional support to us humans.

INTRODUCTION

Our society is now being reshaped by rapid advances in information technology, leading towards the age of auto-intelligence. Over the past couple of years, we have been swarmed by various new kinds of bots. Bots are automated with software or hardware that are powered by the advances in Artificial Intelligence technologies. The two most appealing disciplines of AI are Machine Learning and Deep Learning. These
have a great wave of change coming in for our society, reshaping the existing norms and trends—some of which are making things easier to be done - automation and maybe perciptient emotional support up to a certain level. Advances in deep learning and other machine learning algorithms are currently causing a tectonic shift in the technology landscape. Technology behemoths like Google, Microsoft, Amazon, Facebook and Salesforce are engaged in an artificial intelligence (AI) arms race, gobbling up machine learning talent and startups at an alarming pace. They are building AI technology war chests in an effort to develop an insurmountable competitive advantage. 

Historically, AI has been defined by the ability of a computer to pass the Turing test, which meant the public wasn’t going to be happy with AI until they had a walking, talking robot. Anything less was considered a failure. We’re still far away from creating this kind of general AI, but we’re already solving some types of advanced problems with machine learning, a subset of AI proper. Rather than focus on general intelligence, machine learning algorithms work by improving their ability to perform specific tasks using data. Problems that used to be the exclusive domain of humans – computer vision, speech recognition, autonomous movement – are being solved today by machine learning algorithms. 

In fact, machine learning has become such a huge area of focus and, for all practical purposes, the term machine learning has become synonymous with AI. Ultimately this is a good thing. The more consumers and companies start associating the term AI with real-world applications of machine learning like self-driving cars, the more they realize that AI is a real thing. It’s here to stay, and it holds the promise of reshaping the technology landscape over the next several years. 

The best instance to epitomize the facilitation of Machine Learning to our daily lives is a chatbot, or, better known as a personal assistant. With the help of this advanced technology in bots, we are able to interact with devices and gadgets at our home and offices using speech. These bots give ease to our lives, but they cannot make the human like conversation. These bots just follow the commands, which are instructed by us, they are not intelligent enough to understand the sentiments. Due to this reason, they cannot emotionally attach to us when we are unhappy and wanted to share our feelings. 

To make it happen, we are introducing the CHEERBOT - “A bot which tries to cheer you up when you are sad”. CHEERBOT will try to make the conversation more like humans, interacting with her is easy for any person. The main aim of CHEERBOT is to make people happy or make them feel good when they are not happy by talking with them. 

MOTIVATION AND INSPIRATION

This project initially started as a vague embryo of idea – to create something that would break the stereotype of being ‘addicted’ to the technology and its catering devices. In today’s age, we are so driven by technology extensively - which is a good thing. We are embracing the new changes and developments to facilitate our lives. But at the same time, we apparently end up blaming technology for out casting us and barring ourselves from social interactions. We end up saying we don’t have anyone to talk to just because of being so into technology. Then why not use the technology itself to solve this problem? This social stigma of barring oneself from social interactions allegedly because of technology is the exact problem that our project has addressed, and solved using the technology itself. 

This was just an ignitor towards a wider perspective that would then serve as the main purpose of pursuing CHEERBOT. The impetus of it is right as in its namesake – to cheer everyone up, but delving a little deep, when does anyone need cheering up? There are so many reasons why someone would