ABSTRACT ON SEMINAR TOPICS

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Topic: <u>Artificial Intelligence Candidate Recruitment System using</u> <u>Software as a Service (SaaS)</u>

Artificial intelligence is, by all accounts, here to stay. It is making serious inroads in 2018 and is coming to a business near you in the near future. With revenues from Al expected to reach \$59.8 billion by 2025, according to a report,, this task-reducing technology can and will make your work responsibilities easier.

One of the ways that AI is expected to reduce the workload for employees is by making the tasks of hiring and recruiting easier. Because the technology can automate many of the responsibilities that are time-consuming and requiring strenuous effort for workers, AI is expected to be a faster and more efficient alternative for companies to employ as a part of their HR efforts.

The motive of this concept is to utilize the Artificial intelligence concepts and algorithms to help firms recruit highly productive employees for their firm. The Chatbot used in this concept could test the employee in both technical as well as non-technical fields. During the recruitment process, in order to judge the candidate's attitude taking a particular string ie positive, negative, or neutral, the disclosed method makes use of sentiment analysis. One of the greatest benefits of this concept is that it helps to save time and money of the firm which they spend in hiring the candidates for their organization. The architecture is highly ductile, robust, vigorous and extensible.

More companies will use AI to scan resumes, schedule interviews, and send routine emails, which improves efficiency for companies and candidates. On top of that, more and more recruitment software seems to make use of AI in some form or another. It will improve the candidate experience by making early interactions more personalized, thus laying the foundation for genuine and relevant interviews as the hiring process proceeds. AI can enable real relationships between companies and candidates.

Topic: Human Aided bots

A chatbot is an example of a text-based conversational agent. The 2016 Meeker Trends Report shows that monthly active users on messaging platforms continue to grow faster than on social networks, so it is important for digital marketers to adapt to this new consumer trend. Facebook with its 900 million users on its Messenger platform announced the launch of group bots this year. With over 1,00,000 bots listed already, you can create a bot in under 10 minutes on the Messenger 2.0 platform. Last year Google acquired API.AI which helps developers to build bots by providing them with tools that help with speech recognition, intent recognition and context management. Of course, not all chatbots are created equal, and there is a long tail of chatbots which don't find active users.

Designing chatbots requires an inherent understanding of human behavior. If you consider a chatbot to be another touch point in your brand's journey, make sure that it counts and feel better or at least equal to talking to a human being. Bots are never bored or tired. They also never waiver from the programmed script – so it is important that they are designed to deliver the experience you want.

While natural language understanding and machine learning techniques have advanced rapidly, current fully automated chatbots still struggle to serve their users well. Human intelligence, brought by crow workers, freelancers or even full_time employees can be embodied in the chatbot logic to fill the gaps caused by limitations of fully automated solutions.

Topic: Facial emotion recognition in real-time and static images

Facial expressions are a form of nonverbal communication. Various studies have been done on the classification of these facial expressions. There is strong evidence for the universal facial expressions of eight emotions which includes neutral, happy, sadness, anger, contempt, disgust, fear, and surprise. So it is very important to detect these emotions on the face as it has wide applications in the field of Computer Vision and Artificial Intelligence. These fields are researching on the facial emotions to get the sentiments of the humans automatically. The emotion detection has been done in both real-time and static images.

Normally developers use the Cohn-Kanade Database (CK) and the Extended Cohn-Kanade (CK+) database, which comprises many static images 640 x 400 pixels and for the real-time using the webcam. The target expression for each sequence in the datasets are fully FACS (Facial action coding system) coded and emotion labels have been revised and validated.

So for emotion recognition initially we need to detect the faces by using HAAR filter from OpenCV in the static images or in the real-time videos. Once the face is detected it can be cropped and processed for further detection of facial landmarks. Then using facial landmarks the datasets are trained using the machine learning algorithm SVM (Support Vector Machine) and then classified according to the eight emotions. Emotion recognition is going to be very useful in the near future in the research field of robotics and Artificial Intelligence for example if a robot can sense the sentiment of any human and that robot can act accordingly without any intervention of any other humans.