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Department of Computer Science and Engineering

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LITERATURE SURVEY

TITLE : Real-Time Communication System Powered by AI for Specially Abled

TECHNOLOGY : Artificial Intelligence

DOMAIN NAME : Health Care

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ABSTRACT : In our society, we have people with disabilities. The technology is developing day by day but no significant developments are undertaken for the betterment of these people. Communications between deaf-mute and a normal person has always been a challenging task. It is very difficult for mute people to convey their message to normal people. Since normal people are not trained on hand sign language. In emergency times conveying their message is very difficult. The human hand has remained a popular choice to convey information in situations where other forms like speech cannot be used. Voice Conversion System with Hand Gesture Recognition and translation will be very useful to have a proper conversation between a normal person and an impaired person in any language.

INTRODUCTION : The project aims to develop a system that converts the sign language into a human hearing voice in the desired language to convey a message to normal people, as well as convert speech into understandable sign language for the deaf and dumb. We are making use of a convolution neural network to create a model that is trained on different hand gestures. An app is built which uses this model. This app enables deaf and dumb people to convey their information using signs which get converted to human-understandable language and speech is given as output..

LITERATURE SURVEY :

The author describes [1] increasing complexity of communication systems, following the advent of heterogeneous technologies, services and use cases with diverse technical requirements, provide a strong case for the use of artificial intelligence (AI) and data-driven machine learning (ML) techniques in studying, designing and operating emerging communication networks. At the same time, the access and ability to process large volumes of network data can unleash the full potential of a network orchestrated by AI/ML to optimize the usage of available resources while keeping both CapEx and OpEx low. Driven by these new opportunities, the ongoing standardization activities indicate strong interest to reap the benefits of incorporating AI and ML techniques in communication networks. For instance, 3GPP has introduced the network data analytics function (NWDAF) at the 5G core network for the control and management of network slices, and for providing predictive analytics, or statistics, about past events to other network functions, leveraging AI/ML and big data analytics. Keywords: intelligent networking; network slicing; network data analytics function (NWDAF); radio access network intelligent control (RIC).

This author discusses [2] the concept, benefits, application, impact and role of artificial intelligence (AI) in the public relations (PR) industry. It examines the application of AI-based systems and their role as strategic disruption in the PR industry. That is based on qualitative semi-structured interviews of 31 PR professionals and is grounded in the insights from the review of relevant research papers, articles, and case studies. It highlights the developments in research and practice related to AI application in the PR industry. AI-powered systems can scan social media and are smart, intelligent and experts in handling queries. These AI-enabled systems can post responses on social media in real time for the client and manage the crisis. With AI, PR professionals can save time spent on mundane activities like creating media lists, scheduling meetings and sending follow-up emails. Mass personalization and customization using AI are improving the effectiveness of PR activities. It is too early to say whether AI will act as strategic disruption in the PR industry. Based on the insights and discussion in this article, the PR professionals and researchers can make decisions on whether to invest in AI tools and solutions.

The author describes [3] AI with learning abilities is a revolutionary technology which the communication industry is exploring, with the aim of introducing it into communication networks and services. At this time there is no total solution or complete framework to do so. One contender in the steps towards a solution is a FINE framework, which can be illustrated by the example of an SDN/NFV collaboratively- deployed network

Reference

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2. Panda, G., Upadhyay, A. K., & Khandelwal, K. (2019). Artificial intelligence: A strategic disruption in public relations. *Journal of Creative Communications*, 14(3), 196-213.
3. Xu, G., Mu, Y., & Liu, J. (2017). Inclusion of artificial intelligence in communication networks and services. *ITU J. ICT Discov. Spec*, 1, 1-6.