PROJECT

REAL TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY ABLED

TEAM MEMBERS

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LITERATURE SURVEY-1

TITLE: Artificial Intelligence Enabled Virtual Sixth Sense Application for the disabled

AUTHOR: Aditya Sharma 1, Aditya Vats 2, Shiv Shankar Dash 3 and Surinder Kaur 4

YEAR OF PUBLISHED: 2020

REFERENCES

1.Manduchi, R., Kurniawan, S., & Bagherinia, H. (2010, October). Blind guidance using mobile computer vision: A usability study. In Proceedings of the 12th international ACM SIGACCESS conference on Computers and accessibility (pp. 241-242). 2.Ivanchenko, V., Coughlan, J., Gerrey, W., & Shen, H. (2008, October). Computer vision-based clear path guidance for blind wheelchair users. In Proceedings of the 10th international ACM SIGACCESS conference on Computers and accessibility (pp. 291292).

3.Johnsen, A., Grønli, T. M., & Bygstad, B. (2012). Making touchbased mobile phones accessible for the visually impaired. Norsk informatikkonferanse,(Bodø, Norway, 2012).

4.Matusiak, K., Skulimowski, P., & Strumiłło, P. (2013, June). Object recognition in a mobile phone application for visually impaired users. In 2013 6th International Conference on Human System Interactions (HSI) (pp. 479-484). IEEE.

DRAWBACKS

The default value for interim results is false, meaning that the only results returned by the recognizer are final and will not change. The demo sets it to true, so we get early, interim results that may change. This was used for a seamless user experience.

LITERATURE SURVEY-2

TITLE:D-Talk: Sign Language Recognition System for People with Disability using Machine Learning and Image Processing

AUTHOR: Bayan Mohammed Saleh1, Reem Ibrahim Al-Beshr2, Muhammad Usman Tariq

YEAR OF PUBLISHED: 2020

REFERENCES

1.Anderson, R., Wiryana, F., Ariesta, M. C., & Kusuma, G. P. (2017). Sign language recognition application systems for deaf-mute people: A review based on input-process-output. Procedia computer science, 116, 441-448.

2.Ansari, Z. A., & Harit, G. (2016). Nearest neighbour classification of Indian sign language gestures using kinect camera. Sadhana, 41(2), 161-182.

3.Aujeszky, T., & Eid, M. (2016). A gesture recogintion architecture for Arabic sign language communication.

DRAWBACKS

There was only one issue. The system is very sensitive. It catches any element in the box. So, the user must be careful to have a blank background. The result was as below when the user signs a gesture, and the system will decide which sign reflect which website.

LITERATURE SURVEY-3

TITLE: Design of a smart controller for the self-learning of Differently Abled

AUTHOR:lakshmaiah alluri, m.bhaskar and Hemanth jeevan

YEAR OF PUBLISHED:2020 **REFERENCES**:

1. Amiya Kumar Tripathy Michelle D'sa Roweena Alva Jonita Fernandes and Ann Lisa Joseph "Finger Braille: Tactile Communication for Differently abled" International conference for Technology for Sustainable Development(ICTSD2015) vol. A247 pp. 529-551 Feb 04-06 2015.

2. Brad Hendersonl "Extended Abstract: Seeing Things Differently A hands-on Tour of Writing through the Lens of math" IEEE2016.

ADVANTAGES

It developes a handheld portable device to meet different kinds of learning required for the persons with different disabilities.

LITERATURE SURVEY-4

TITLE: AI to make life easier for the disabled in 2022
AUTHOR: meeta ramani

YEAR OF PUBLISHED:2022

REFERENCES: Google

DRAWBACKS

Polly can attach to any wheelchair or bedside, track eye movement and use ML to assist smart prediction of the user's needs and wants.

LITERATURE SURVEY-5

TITLE: A Face Based Real Time Communication for Physically and Speech Disabled People

AUTHOR: Ong Chin Ann,Marlene Lu,Bee Theng Lau

YEAR OF PUBLISHED:2011

REFERENCES: Lau Bee Theng Swinburne University of Technology, Malaysia

DRAWBACKS: The authors adapted the Viola-Jones face detection algorithm at the face detection stage and implemented template matching technique for the expression classification and recognition stage. They tested their model with a few users and achieved satisfactory results. The enhanced real time behaviour

LITERATURE SURVEY-6

TITLE: Feature based evaluation of hotel reviews and ratings for differently abled people

AUTHOR: Humaira G. Momin,Chandrabhaga S. Kondhawale,Rubina E. Shaikh and Kiran G. Gawandhe

YEAR OF PUBLISHED:2017

REFERENCES: 1. A. Esuli and F. Sebastiani "SentiWordNet: A publicly available resource for opinion mining" Proceedings of the 6th international conference on Language Resources and Evaluation (LREC'06) pp. 417-422 2006.

2. Vijay B. Raut and D.D. Londhe "Survey on Opinion Mining and Summarization of User Reviews on Web" International Journal of Computer Science and Information Technologies vol. 5 no. 2 pp. 1026-1030 2014.

DRAWBACKS: This system focuses on the features that are essential to a disabled person for booking a hotel room or service.

The System is a portal that displays the feature based ranks of each hotel based on reviews using opinion mining.

LITERATURE SURVEY-7

TITLE : Edge Artificial Intelligence for 6G: Vision, Enabling Technologies, and Applications

AUTHOR: Khaled B. Letaief , Fellow, IEEE, Yuanming Shi , Senior Member,

IEEE, Jianmin Lu, and Jianhua Lu, Fellow, IEEE

YEAR OF PUBLISHED: 2021

REFERENCES

[1] Resilient and Intelligent NextG Systems (RINGS).

[2] Expanded 6G Vision, Use Cases and Societal Values.

[3] IMT-2030 (6G) Promotion Group, 6G Vision and Candidate Technologies. [4] Network 2030: A Blueprint of Technology, Applications and Market Drivers Towards the Year 2030 and Beyond, document FG-NET-2030, ITU Focus Group on Technologies for Network, May 2019.

ADVANTAGES:

To further imbue native intelligence, native trustworthiness, and native sensing in 6G, mimicking nature for innovating edge AI empowered future networks can be envisioned. Inspired by the dynamic spiking neurons in the human brain, the energy consumption and latency of edge AI can be significantly reduced by processing the learning tasks in an event-driven manner

LITERATURE SURVEY-8

TITLE: Guest Editorial Special Issue on Artificial Intelligence and Machine

Learning for Networking and Communications

AUTHOR: Wolfgang Kellerer, Senior Member, IEEE,Yong Li, Senior Member, IEEE, Rolf Stadler, Senior Member, IEEE, Dacheng Tao, Fellow, IEEE,Yonggang Wen, Senior Member, IEEE, and Ying Zhang, Senior Member, IEEE

YEAR OF PUBLISHED: 2019 **REFERENCES:**

B. A. A. Nunes, M. Mendonca, X.-N. Nguyen, K. Obraczka, and T. Turletti, “A survey of software-defined networking: Past, present, and future of programmable networks,” IEEE Commun. Surveys Tuts., vol. 16, no. 3, pp. 1617–1634, 3rd Quart., 2014.

[2] Y. Li and M. Chen, “Software-defined network function virtualization:

A survey,” IEEE Access, vol. 3, pp. 2542–2553, Dec. 2015. [3] R. Boutaba et al., “A

comprehensive survey on machine learning for networking: Evolution, applications

and research opportunities,” J. Internet Services Appl., vol. 9, no. 1, p. 16, Jun. 2018.

DRAWBACKS:

In this section we outline research topics that have attracted less attention to date by the research community and lack representation in the selected papers for this issue. We believe they are of high potential and should be investigated to fully exploit AI/ML methods for networking and networked systems in general.