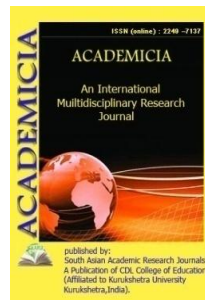




ACADEMICIA
An International
Multidisciplinary
Research Journal
 (Double Blind Refereed & Peer Reviewed Journal)



DOI: 10.5958/2249-7137.2021.00867.3

REAL-TIME ANALYZING OF CHATBOT DATA WITH DISTRIBUTED SYSTEMS

Boltayev B. R*; Xujamov D. J**

^{1,2}Master,

Tashkent University of Information Technology,
 Named after Muhammad Al-Khorezmi of Urgench Branch,
 UZBEKISTAN

ABSTRACT

Chatbots are one of the most widely used technologies to implement virtual assistance. Presently, chatbot based virtual assistants are being used by many web administrators to mediate access to data and to carry out generic conversations with the users. Such virtual assistants are getting a lot of attention from the business organizations, as it can help in improving customer care support; reduce the costs in customer service centers and can handle multiple clients at a time. Big data analytics is the process of collecting, organizing and analysing large data sets to discover patterns and unknown correlations hidden in the data, such as usage statistics and customer preferences, which can serve as valuable business information. This paper describes the implementation of a chatbot framework with an interface to big data. This implementation would provide mass knowledge analysis capability to chatbots from distributed environments, which can further the spectrum of usage of such intelligent agents.

KEYWORDS: *Chatbot, Play Framework, Akka, Cassandra, PostgreSQL, Elasticsearch.*

REFERENCES

1. [1] *Customer service 4.0 - Wie gut sind Chatbots*, 2019, [online] Available:https://www.heise.de/downloads/18/2/5/4/1/3/4/2/Studie_chatbots.pdf.
2. Reshmi, S., and Kannan Balakrishnan. "EMPOWERING CHATBOTS WITH BUSINESS INTELLIGENCE BY BIG DATA INTEGRATION." *International Journal of Advanced Research in Computer Science* 9.1 (2018).

3. Zumstein, Darius, and Sophie Hundertmark. "CHATBOTS--AN INTERACTIVE TECHNOLOGY FOR PERSONALIZED COMMUNICATION, TRANSACTIONS AND SERVICES." IADIS International Journal on WWW/Internet 15.1 (2017).
4. "The High Velocity Web Framework for Java and Scala," Play Framework - Build Modern & Scalable Web Apps with Java and Scala. [Online]. Available: <https://www.playframework.com/>. [Accessed: 28-Mar-2021]
5. "Build concurrent, distributed, and resilient message-driven applications for Java and Scala," Akka. [Online]. Available: <https://akka.io/>. [Accessed: 28-Mar-2021]
6. "Watson Assistant - Overview," IBM. [Online]. Available: <https://www.ibm.com/cloud/watson-assistant>. [Accessed: 28-Mar-2021]
7. J. Mylet, "Lex," Amazon, 2012. [Online]. Available: https://aws.amazon.com/lex/?nc1=h_ls. [Accessed: 28-Mar-2021]
8. "Manage massive amounts of data, fast, without losing sleep," Apache Cassandra. [Online]. Available: <https://cassandra.apache.org/>. [Accessed: 28-Mar-2021]
9. "Free and Open Search: The Creators of Elastic search, ELK & Kibana," Elastic. [Online]. Available: <https://www.elastic.co/>. [Accessed: 28-Mar-2021]