Literature Survey

Team ID: PNT2022TMID54140

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Domain Name: Banking and Finance **Use case Name**: AI based discourse for Banking Industry

Paper -1

Title: A Review of Chatbots in the Banking Sector

Author: Shashank Bairy R and Rashmi R

Publishedyear: 2021

Description: This paper explains the basic anatomy of the chatbots and the various applications of the chatbots in banking sector. It also went over various improvements that could be made on the current chatbot technologies. It states that the role of chatbots play in the banking sector will only continue to raise due to the constant improvements being made to its logic and increased demand among the customer for better experience.

Paper -2

Title: Dialogue AI for Financial Services

Author: Takeshi Shirai, Masaaki Yamamoto, Ph.D., Yu Asano, Ph.D., Yusuke Fujita and Katsuyuki Tsunami

Publishedyear: 2018

Description: By examining the challenges faced by current chatbots and the strategies being used to solve them, this article describes the technologies and features that future dialogue AIs will require in order to be effective business applications of dialogue AI in banking institutions. Dialogue AI has the ability to be used in a variety of different formats and different business settings, going beyond its current function as a straightforward user interface.

Paper - 3

Title: An Ontology-Based Dialogue Management System for Banking and Finance Dialogue Systems **Author**: Duygu Altinok

Description: Keeping the dialogue state in dialogue systems is a notoriously difficult task. So this paper introduce an ontology-based dialogue manager (OntoDM). With this new framework the author addresses the dialog management. It describes domain-driven ways to keep the conversation memory, both the user and the bot side, make the anaphora resolution, generate knowledge-based answers, possibly contribute to what to say next, integrate linguistic features into the context NLU but answer generation modules were considered in detail in this paper.

Title: CHATBOTS IN BANKING INDUSTRY: A CASE STUDY

Author: Dr. Shalini Sayiwal

Publishedyear: 2020

Description: The about paper states regarding the banking industry and the technology has provided several unique ways to enable the sector to maximize consumer happiness. Introducing chatbots to its clients is one such clever tactic. One of a bank's most promising business techniques that can help it win the loyalty of its devoted consumers is the use of chatbots created using AI. This paper examines about the pros and cons of the existing Chatbots names EVA (Electronic Virtual Assistant) of HDFC (Housing Development Finance Corporation Limited) and Keya of Kotak Mahindra Bank.

Paper - 5

Title: Conversation to Automation in Banking Through Chatbot Using Artificial Machine Intelligence Language

Author: Sasha Fathima Suhel, Vinod Kumar Shukla, Sonali Vyas and Ved Prakash Mishra

Publishedyear: 2020

Description: The paper demonstrates how AI is always evolving. This study introduces a novel idea that discusses machine intelligence and highlights the possibilities of intelligent systems. The latest disruptive force that has altered how customers connect is the growth of chatbots in the finance industry. Artificial intelligence has transformed the way that banks communicate with their consumers in the banking sector by enabling chatbots. Any nation's development depends heavily on the banking industry. It also investigates the chatbot's current usability to determine whether it can satisfy customers' fluctuating needs.

Paper - 6

Title: Survey of Conversation to Automation in Banking Through Chatbot using Artificial Machine Intelligence Language

Author: Asst. Prof. Veena M Naik and Sandhya Shree

Publishedyear: 2022

Description: The above study mentions the advent of chatbot and it also examines the efficacy of chatbots now to see if they can accommodate clients' shifting needs. This paper also states about the Artificial Linguistic Internet Computer Enterprise A.L.I.C.E (Foundation of Artificial Intelligence, 2007). It proposes ontology-based solutions for addressing conversation in the banking and financial industry.

Paper - 7

Title: AI-based Chatbot Service for Financial Industry

Author: Takuma Okuda and Sanae Shoda

Published year: 2018

Description: In this paper the authors discussed about Financial Services Solution by FUJITSU, Finplex Robot Agent Platform is an AI-based business chatbot solution (also known as FRAP). By allowing customers to communicate with a robot that has knowledge amassed through machine learning, FRAP achieves automatic robot support of financial-product sales and customer service. The developments in corporate chatbot services and some examples of how to use chatbots in business applications are first covered in this article. After that, it provides a case study of Sony Bank Inc.'s use of FRAP and outlines its features.

Paper - 8

Title: Text-Based Chatbot in Financial Sector: A Systematic Literature Review

Author: Hana Demma Wube, Sintayehu Zekarias Esubalew, Firesew Fayiso Weldesellasie and Taye Girma Debelee

Publishedyear: 2022

Description: This study gives a thorough, systematic analysis of the literature of papers on text-based chatbots in the banking industry. It discusses the understanding of chatbots in the financial sector in terms of implementation, adoption intention, attitude toward use, and acceptance; it also discusses how people perceive, expect, and trust chatbots, as well as how they are engaging and emotionally motivated; management of the security and privacy vulnerabilities of the chatbots; and it identifies potential strategies that can impede the effective, successful use of chatbots. Finally, the key findings on the use of text chatbots in the financial industry are given. In addition, the unresolved problems in the existing study are noted, and a number of future research avenues are recommended.

Paper - 9

Title: Development of Dialogue Management System for Banking Services

Author: Samir Rustamov, Aygul Bayramova and Emin Alasgarov

Publishedyear: 2021

Description: In the paper, the main two components of dialogue management systems—NLU and Dialogue Manager—have been investigated. In the first step of NLU, they utilized the Language Identification component for language detection with both built-in LI methods such as fastText and custom ML models trained on the domain-based dataset. The second step of the work was the comparison of the classic ML classifiers and DIET architecture for the user intention detection. Four different ML algorithms with nine various features are trained with 36 different models. The Dialogue Management module is then trained by transformer embedding dialogue policy.

Paper - 10

Title: Chatbot for Healthcare System Using Artificial Intelligence

Author: Lekha Athota, Vinod Kumar Shukla, Nitin Pandey and Ajay Rana

Publishedyear: 2020

Description: The paper's primary goal is to provide visitors with basic health information. When a person initially accesses the website, they must register before they may ask the bot questions. If the answer is not found in the database, the system employs an expert system to respond to the requests. Domain experts are also required to register by providing certain data. The chatbot's data is kept in the database as pattern-template data. Here, the database is managed through SQL.