CSR Project Management Tool and Analytics Platform

Literature Survey

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| S. No. | Paper Title & Year | Paper Summary | Improvement |
| 1 | Analysis of Project Management Tools to support Knowledge Management, 2023 | Existing knowledge management tools effectively manage the capture, storage, sharing, and application of knowledge. However, they are heavily dependent on manual processes, which can lead to inefficiencies and errors. Additionally, they lack advanced automation and AI-driven features, limiting their ability to provide proactive insights and streamline decision-making. | To address these issues, we use an NLP model for intelligent tagging and automated linking of similar objects based on content. This enhances the system by suggesting related objects, displaying deadlines, and providing relevant documents through pop-ups, thereby improving efficiency and decision support. |
| 2 | Twitter Sentiment Analysis and Emotion Detection  using NLTK and TextBlob, 2023 | The study focuses on analyzing Twitter data to gauge public sentiment about various topics. By using NLP techniques and libraries like VADER or TextBlob, it classifies tweets related to specific keywords as positive, negative, or neutral, helping businesses and consumers understand overall opinions on products and services. | SpaCy offers improved efficiency and performance over NLTK by utilizing high-speed, contextual embeddings from pre-trained models. Its user-friendly API and optimized pipeline enhance tasks like tokenization and named entity recognition, making it ideal for large-scale text processing and production systems. |
| 3 | Natural Language Processing using NLTK and WordNet, 2019 | The paper introduces Natural Language Processing (NLP) as a set of computational techniques for analyzing and representing text to achieve human-like language processing. It focuses on NLTK. However, NLTK and WordNet have limitations, such as being slower for large-scale applications, lacking deep learning integration, and WordNet's outdated and limited vocabulary, which may not cover modern language use effectively. | SpaCy offers improved efficiency and performance over NLTK and WordNet by utilizing high-speed, contextual embeddings from pre-trained models. Its user-friendly API and optimized pipeline enhance tasks like tokenization and named entity recognition, making it ideal for large-scale text processing and production systems. |
| 4 | Text Mining: Open Source Tokenization  Tools – An Analysis, 2016 | Many tokenization tools like NLTK, TextBlob, and others have limitations such as inability to upload files, difficulty handling special characters, and constraints on input length. Some tools, like Mila Tokenizer, provide outputs in less user-friendly formats like XML, and Python-based tools might lack efficient processing for large datasets. | SpaCy addresses these issues effectively by supporting file uploads, handling special characters robustly, and providing efficient, user-friendly tokenization for large volumes of text, making it a comprehensive alternative to the tools mentioned. |
| 5 | Text Vectorization Techniques based on WordNet, 2023 | This paper introduces a text vectorization technique using WordNet to improve NLP tasks. By replacing words with synonyms from WordNet, the method aims to enhance semantic representation. Evaluations through text classification tasks demonstrate improved performance over traditional methods like Word2Vec and GloVe. However, limitations include potential issues with synonym accuracy and context preservation. | RoBERTa improves over traditional methods by offering context-aware embeddings that adjust dynamically based on surrounding text. This enhances synonym accuracy and context preservation, making it highly effective for tasks like sentiment based text classification. |
| 6 | A scoping review of topic modeling on online data, 2023 | The paper reviews recent advancements in topic modeling applied to online data, emphasizing the growing importance of this technique for extracting insights from unstructured text. It finds that Latent Dirichlet Allocation (LDA) is the most commonly used and effective method, with a need for more research in non-English languages. Despite its effectiveness, the paper notes that LDA's performance can still be improved and adapted for better results. | Top2Vec uses BERT’s contextual embeddings to create nuanced topic models, making it ideal for sentiment analysis and ATS. It captures deep semantic meaning and context, enhancing accuracy in evaluating and matching candidates while adapting to complex language features. |
| 7 | Understanding Sentiment Analysis with VADER: A Comprehensive Overview and  Application, 2024 | The paper provides an overview of VADER, a rule-based sentiment analysis tool that uses a lexicon and heuristic rules to effectively capture sentiment nuances. It excels with social media text and various other text forms. A case study demonstrates VADER’s application to academic paper titles. The paper highlights VADER's ease of use and accuracy but notes limitations in handling complex, contextual sentiments. | RoBERTa excels in sentiment analysis by leveraging its contextual understanding to capture nuanced and complex sentiments. Unlike rule-based models, it processes text with deep contextual awareness, enabling it to handle ambiguous language and varied domains effectively. Its ability to be fine-tuned on specific datasets enhances its accuracy and adaptability. |
| 8 | AHP Used By Project Managers ,2024 | AHP is a decision-making tool that helps project managers break down complex decisions into a hierarchy of criteria, prioritize objectives, assess alternatives, and allocate resources efficiently. It integrates both qualitative and quantitative factors, enabling systematic analysis and informed, risk-aware decisions. | The proposed solution uses Multi-Criteria Decision Analysis (MCDA) to evaluate options based on cluster size and sentiment scores, prioritizing importance and urgency. This approach helps in systematically weighing these criteria to make informed and balanced decisions that align with the goals. |
| 9 | Machine Learning-Based Prediction Models For Budget Forecast In  Capital Construction ,2023 | This paper evaluates machine learning models—Decision Tree, Random Forest, Gradient Boosting Regressor, and Multiple Linear Regression—to predict the final budget of high-value construction project in NY. It highlights the effectiveness o f these models in forecasting budgets based on project type, phase, and changes. To improve accuracy, the paper suggests incorporating additional features and hyperparameter tuning. | To enhance the accuracy of predicting capital construction budgets, we propose incorporating advanced feature engineering by adding relevant factors like geographic location and contractor experience. Additionally, applying hyperparameter tuning methods such as Grid Search or Random Search will optimize model performance and improve prediction precision. These improvements aim to provide more accurate result. |
| 10 | Duration and resource constraint prediction models for construction projects using regression machine learning method , 2024 | The paper addresses the challenge of estimating labor and project durations in construction, emphasizing the need to account for uncertainties. It utilizes Support Vector Regression (SVR) and compares it with Gaussian Naive Bayes and other methods. The SVR model demonstrated superior accuracy, with an explained variance score ranging from 0.95 to 0.97. | Ensemble learning improves prediction accuracy by combining multiple models. Techniques like bagging, boosting, and stacking aggregate different algorithms' strengths. Methods such as Random Forests and XGBoost help reduce overfitting and enhance generalization. This approach often yields better performance by capturing complex data patterns. |
| 11 | To study the sector-wise and initiative-wise CSR performance of the Indian corporate sector, 2023 | The paper says that the corporations have realised that taking social responsibility in the societies where they operate can result in a number of benefits. The debate now centres on a company's capacity to inform its stakeholders about its social contributions rather than just being a model corporate citizen. Therefore, the current study investigates how NIFTY 100 corporates engaged in CSR during the voluntary era | The project provides a comprehensive analysis of CSR activities by detailing sector-wise, location-wise, company-wise, and year-wise initiatives. It offers a granular view of how different sectors and companies have engaged in CSR across various locations and over time, highlighting trends, impacts, and shifts in CSR practices. |
| 12 | A Study Of The Focus Areas Of The Top Ten  CSR Contributing Companies In India, 2023 | This study analyzes CSR spending patterns of India's top ten companies from 2016-’17 to 2020-’21 using data from the National CSR portal. It finds that Education, Skill Development, Rural Development, Health Care, and Environmental Sustainability are the main focus areas. The study highlights the diversity in CSR spending and suggests a need for a more inclusive approach to CSR in India. | The project provides a comprehensive analysis of CSR activities by detailing sector-wise, location-wise, company-wise, and year-wise initiatives. It offers a granular view of how different sectors and companies have engaged in CSR across various locations and over time, highlighting trends, impacts, and shifts in CSR practices. |
| 13 | A Study Of The Role Of CSR and Business As A New Trend | The present study examines the latent constructs, such as New trends in business.is not studied  by researchers in the past. The purpose of the study is to examine the impact of CSR on business. The  new trend of CSR. | The project presents an in-depth examination of CSR initiatives, categorizing them by sector, location, company, and year. This approach provides a detailed perspective on how various sectors and organizations have participated in CSR over time, showcasing trends, impacts, and changes in CSR practices. |
| 14 | Corporate Social Responsibility: A Study On CSR Practices  Of Select Indian Companies,2021 | The paper discusses the evolution of Corporate Social Responsibility (CSR) in India, highlighting increased integration of CSR into business strategies, regulatory requirements, and the importance of addressing social and environmental impacts. | The project presents an in-depth examination of CSR initiatives, categorizing them by sector, location, company, and year. This approach provides a detailed perspective on how various sectors and organizations have participated in CSR over time, showcasing trends, impacts, and changes in CSR practices. |
| 15 | A Systematic Review Of Literature On Corporate Social Responsibility Practices Of Indian Companies, 2024 | The study attempted to comprehend all legal aspects of mandatory provisions of CSR applicable to Indian companies, their recent trends in skill development programmes, and the impact of CSR on firm performance | I propose developing a central portal to consolidate CSR information for all stakeholders and maintain a record of each company’s performance with the ESG policies followed by all the stakeholders in providing CSR services |
| 16 | Sentiment Analysis of Customer Feedback and Reviews for Airline  Services using Language Representation Model, 2023 | This paper analyzes airline reviews using sentiment analysis, comparing machine learning algorithms like Naive Bayes, SVM, Decision Tree, and BERT. It discusses BERT's architecture and evaluates algorithm performance against a Random Forest baseline. | This project leverages RoBERTa for superior sentiment analysis and Tamil language support. It intelligently tags negative feedback for corporate correction and positive feedback for future reference. The approach enhances feedback management by ensuring that constructive criticism is addressed and valuable praise is retained. |
| 17 | Real-Time Project Productivity Tracking System: Practical Casein Smart Construction Projects, 2022 | The study introduces a method to improve construction project efficiency by using smart technologies and real-time monitoring tools. By integrating applications like SiteDoc and MS Teams, the method aims to reduce data collection and reporting time by 24%, simplifying the process and enabling faster, more informed decision-making. This approach addresses inefficiencies in traditional progress tracking and enhances overall project management. | The combination of Kafka Streams and ARIMA predictive analysis can address several limitations of the proposed method by improving real-time data processing, enhancing predictive accuracy, and managing data variability effectively. This integration can lead to better decision-making and more efficient project management ultimately achieving the goals set out in the study. |
| 18 | Empowering Collaboration: Unveiling a State-of-  the-Art Corporate Social Responsibility Portal for  Sustainable Corporate Citizenship, 2024 | The CSR Portal will prioritize robust security to counter cyber threats. It will showcase companies' CSR profiles, innovative solutions, validated NGOs, and projects on a dashboard. To protect sensitive data, AES encryption will be used. Future enhancements may include cloud deployment and, potentially, blockchain integration for a distributed environment. | To improve security, the CSR Portal will use MFA, OTP, and OAuth 2.0 for authentication, RSA and AES for encryption, SHA for hashing, and bcrypt for password security. It will also implement HTTPS, token-based authentication with secure cookies, CSRF tokens, and additional protections. |
| 19 | Present Position of Corporate Social Responsibility (CSR) in India: A Descriptive Study , 2023 | The paper examines Corporate Social Responsibility (CSR) in India, where it is legally mandated. It reviews CSR's origins, current practices, and challenges using government data and various viewpoints. The study provides a concise overview of CSR's role and issues in India, aimed at informing students and others about its impact and requirements. | I propose developing a central portal to consolidate CSR information for all stakeholders, enhancing the user interface to ensure it is responsive and accessible across devices, and implementing push notifications to keep interested parties informed and engaged with CSR activities. |
| 20 | CSR, Strategy and Financial Performance ,2016 | The paper finds that prospectors benefit from engaging in public CSR activities, leading to better financial performance, while defenders see improved performance from investing in internal CSR initiatives. The study highlights the need to align CSR activities with a firm’s strategic orientation for optimal financial outcomes. | We resolve this, we propose adding tailored features: public CSR tools for prospectors and internal CSR tools for defenders. This customization ensures that each type of firm can maximize their CSR impact according to their strategic focus. |
| 21 | Research paper on group chatting application , 2022 | The paper discusses the evolution and importance of Corporate Social Responsibility (CSR) in response to consumer demands, emphasizing dialogue-driven communication and the utilization of technology, such as chatbots, for engagement. | I propose creating a central portal that integrates with existing group chats and includes features such as related content recommendations, deadline alerts, and team member position swaps. This enhanced platform would improve accessibility, engagement, and management of CSR activities. |
| 22 | Air Pollution Monitoring System, 2019 | The paper introduces a web app for real-time air quality reporting, aggregating data from various sources. However, it lacks continuous location-based monitoring, alerting, and integration with a central CSR system. | I propose a system with real time tracking of all environmental pollutions using a 3rd party API and periodic alerts location wise integrated with the centralized CSR system |
| 23 | A Study of Documents Management System Based on Web, Case Study: University, 2021 | The paper describes the development of a web-based Document Management System aimed at simplifying the thesis application process for students. By allowing online applications and mentor selection, the system enhances efficiency and communication between students and faculty. Built using Laravel with PHP and MySQL, it addresses shortcomings in traditional, paper-based methods. The project ultimately seeks to increase the impact of students' academic work. | I propose a system which automatically scripts reports for each and every individual session of projects which links with the project using the intelligent tagging system with the features of uploading, retrieving documents with access control and hashing features |
| 24 | Research on Corporate Social Responsibility: Insights and Future Directions, 2023 | The paper analyzes the complexities of corporate social responsibility (CSR), highlighting internal determinants, the confusion in operationalizing CSR, and the need for clearer frameworks and accountability in CSR practices | To address this issue, we implement a combined system of individual modules like the survey, fund, team and task, time, chat, project and document management with live tracking, alerting and prediction mechanisms accurately and efficiently |
| 25 | Improving The Benchmarking Of ESG In Real Estate Investment, 2023 | The paper explores the importance of ESG (Environmental, Social, Governance) benchmarking in real estate investment, highlighting the need for improvement in areas such as granularity, climate resilience, and outcome-focused performance. Based on 60 stakeholder interviews with senior real estate executives, the study identifies key strategic insights for enhancing ESG benchmarking practices across various levels. | The paper proposes improving ESG (Environmental, Social, Governance) benchmarking by leveraging data analysis and statistical methods. By applying data-driven insights, the study suggests more accurate and effective benchmarks can be developed, leading to better-informed decision-making across various industries. |
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