

Artificial intelligence trend analysis on healthcare podcasts using topic modelling and sentiment analysis a data-driven approach

The research paper delves into the evolution of AI trends in healthcare podcasts from 2015 to 2021. The study emphasizes the increasing interest in AI applications in healthcare, the challenges faced in implementing AI in clinical care, and the significance of understanding public perceptions towards AI trends. By employing a web mining approach, the researchers collected data from 29 healthcare podcasts with 3449 episodes and identified 102 AI-related buzzwords for trend detection and analysis using machine learning-based methods. The study successfully detected an AI trend, identified 14 topic clusters, visualized trending topics, and analysed sentiments towards these topics in podcasts

The main topics discussed in the paper include:

- AI trend detection and development
 - The analysis revealed a rising trend in AI-related topics, with buzzwords like data, artificial intelligence, software, metric, cloud, transparency, bias, algorithm, machine learning, and noise being prominent.
 - The relative occurrence of these buzzwords increased over time, indicating a growing interest in AI within the healthcare podcast domain
- Sentiment Analysis
 - The sentiment analysis provided insights into the emotional tone surrounding various topics such as data privacy, hospital pricing, vaccination, and other healthcare-related discussions.

Moreover, the study highlights the increasing societal interest in AI through digital media like podcasts, which cater to a broader audience. Overall, the paper contributes to understanding public perceptions, trends, and sentiments surrounding AI applications in healthcare podcasts, emphasizing the importance of exploring diverse data sources for comprehensive trend analysis

