


Chapter 4

AI-Driven Sentiment Analysis to Monitor Employee Well-Being

Ruhi Lal

Manav Rachna International Institute of Research and Studies, India

Aarzo

 <https://orcid.org/0009-0006-7604-2583>

Manav Rachna International Institute of Research and Studies, India

ABSTRACT

This study examines how AI-powered sentiment analysis monitors employee well-being and shapes workplace culture. As digital communication expands, companies generate massive text and voice data. NLP-based sentiment analysis finds stress early and analyses emotions and performance. The study interviews HR professionals, AI engineers, and employees across industries using a qualitative cross-case approach. AI's ability to recognise emotional trends and how insights are used for support are examined. It also handles employee trust, acceptance, resistance, intrusiveness, data privacy, algorithmic bias, transparency, and permission. The report recommends ethical AI use that respects employee rights, fosters openness, trust, and compliance. HR leaders, AI engineers, and policymakers are advised on responsible AI integration in HR. The report promotes responsible AI discourse by promoting employee-centric initiatives that improve well-being and workplace digital transformation.

DOI: 10.4018/979-8-3373-2135-6.ch004

INTRODUCTION

Understanding and improving employee well-being has become a strategic focus for companies trying to create a healthy and efficient work culture in the modern office, where digital communication is key to daily activities (Ravichandran et al., 2023). Organisations create vast databases, capturing the emotional undercurrents of their workforce. The growing volume of emails, chat messages, video conversations, and performance reports is becoming increasingly significant. Artificial intelligence (AI)-driven sentiment analysis, a major application of natural language processing (NLP), offers a viable approach for deriving insights from these interactions (Davila-Gonzalez & Martin, 2024). Often, before these problems show up as lower productivity or attrition, this technology helps companies spot trends in stress, disengagement, or unhappiness. However, incorporating artificial intelligence into the monitoring of employee emotions presents significant issues related to privacy, consent, algorithmic bias, and the psychological effects of surveillance (Aulia & Lin, 2025). Although current studies on artificial intelligence applications in predictive analytics and recruiting have looked at how AI-based sentiment monitoring affects employee trust, mental health, and organisational policies, our knowledge of how they impact these areas remains lacking (Rao et al., 2025). This study fills this void by looking at how sentiment analysis tools driven by artificial intelligence are used in actual organisational settings, how precisely they interpret emotional trends, and how employees view this type of monitoring. The paper also takes into account the present ethical and legal issues surrounding the application of artificial intelligence in HR operations, especially those pertaining to permission, data protection, and openness (Adamopoulos et al., 2025). Key words influencing this research are “sentiment analysis” (the computational interpretation of emotional tone in text), “employee well-being” (the emotional, psychological, and social health of an employee), and “algorithmic ethics” (the moral principles guiding AI decision-making). According to the research, companies adopting AI technologies now deploy them regularly, and HR managers and employees can offer insightful analysis about their experience with the technology (Xiao, Yan, & Bamber, 2025). With an emphasis on qualitative data collected through in-depth interviews with HR professionals, AI engineers, and staff members across a range of sectors, this study is confined to companies already including AI-based sentiment tools. By use of a cross-case analysis technique, the study will evaluate how various companies apply sentiment analysis, interpret results, and act upon conclusions in a way that conforms with ethical standards (Lal & Sharma, 2021). This study aims to investigate the ethical consequences and employee acceptability of artificial intelligence to identify emotional signals in workplace communication. The theory is that when AI tools are applied with openness and ethical protections, they can improve employee well-being

18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/ai-driven-sentiment-analysis-to-monitor-employee-well-being/391215

Related Content

Application of Geographical Information System and Interactive Data Visualization in Healthcare Decision Making

Zhecheng Zhu (2016). *International Journal of Big Data and Analytics in Healthcare* (pp. 49-58).

www.irma-international.org/article/application-of-geographical-information-system-and-interactive-data-visualization-in-healthcare-decision-making/171404

Big Data, 3D Printing Technology, and Industry of the Future

Micheal Omotayo Alabi (2017). *International Journal of Big Data and Analytics in Healthcare* (pp. 1-20).

www.irma-international.org/article/big-data-3d-printing-technology-and-industry-of-the-future/204445

Applications of Artificial Intelligence Tools in Higher Education

P. S. Venkateswaran, Firas Tayseer Mohammad Ayasrah, Varun Kumar Nomula, P. Paramasivan, P. Anandand K. Bogeshwaran (2024). *Data-Driven Decision Making for Long-Term Business Success* (pp. 124-136).

www.irma-international.org/chapter/applications-of-artificial-intelligence-tools-in-higher-education/335567

Detection of Anomalous Transactions in Mobile Payment Systems

Ibrar Hussainand Muhammad Asif (2020). *International Journal of Data Analytics* (pp. 58-66).

www.irma-international.org/article/detection-of-anomalous-transactions-in-mobile-payment-systems/258921

On the Road to Ephesus: Data-Based Wisdom and Healthcare

Suzanne Roff-Wexler (2015). *Strategic Data-Based Wisdom in the Big Data Era* (pp. 102-125).

www.irma-international.org/chapter/on-the-road-to-ephesus/125048