Enhancement of Employee Engagement with Ethical AI Enabled 6G Wireless Networks

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Abstract

The potential of the envisioned 6G networks for wireless personal communications to mitigate the challenges of Employee Engagement in organisations is the primacy for this research. Opportunities enabled by 6G architecture for AI/ML in real-time sensor fusion, analysis, and visualisation are explored for integration in Human Resource Information Systems (HRIS). This study attempts to provide insights into the regulatory framework for Ethical AI implementation in Indian landscape with concerns & issues on the proposed Employee Engagement methods. The proposed methods have been validated using qualitative analysis of flash interviews with managers & employees. Findings prove the capability of enhancement of employee engagement methods by providing seamless connectivity, refining employee experiences, and

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effective workflow management. AI/ML-driven talent management processes can foster career progression and sentiment analysis can provide effective communication. However, the study also identifies future challenges, including system, societal, technological, and ethical concerns. The research concludes by providing policy, technology and ethical approaches to mitigate the impending challenges in 6G environment with specific emphasis on employee engagement strategies.

Keywords: Employee engagement, ethical AI, 6G, wireless personal communications, HRIS.

1 Introduction

Effective Employee Engagement (EE) has been one of the greatest challenges faced by organisations. Existing communication methods could effectively bridge the gaps between various centres of distributed organisations but not the employees. However, the employees have remained disengaged owing to lack of credible communication methods and immersive experience at workplace especially in remote. With the advent of sixth generation (6G) wireless networks, the design, development and implementation of effective communication methods between employees and organisation is envisaged. This digital transformation in wireless technology will enable a radical change in the man and machine interface in both real and virtual world. This enhanced experience is possible with realisation of sensor fusion in real-time, integration of Artificial Intelligence (AI) & Machine Learning (ML) from core to edge, and transformation of visualisation from Virtual Reality (VR) to Augmented Reality (AR). Organisations and employees adapting to this change in the communication will remain highly productive due to effective Employee Engagement at all levels. The purpose of this research is to provide future challenges, including system, societal, technological, and ethical concerns related to utilisation of AI/ML for human resources information systems with specific emphasis to employee engagement. This paper is aimed at exploring the various methods of increasing Employee Engagement by ethical employment of AI/ML techniques in the application layer in the envisaged 6G networks for wireless personal communications.

2 Review of Literature

2.1 Wireless Personal Communication Technologies

Wireless Personal Communication which was once limited to terrestrial networks has now expanded direct to users from satellites with low latency enabling faster and reliable communications. The definition of wireless personal communication was guided by the applications initially and subsequently by the enabling spectrum & technologies [1]. Now, there is a clear nexus between the core till the applications including the spectrum and technological maturity to fulfil the required services. Wireless personal communications therefore can be defined as set of enabling technologies, systems and service that accomplishes person to person communications with required amount of mobility. A quick technology scan reveals transformation from cordless telephones to cellular mobile services enabling a stream of voice and data services. Cellular mobile services have translated from 1G to 5G and the impending 6G envisioned for optimising communications with interoperability and sustainability [2]. 6G wireless networks is suggested to be operated on electromagnetic spectrum from 100 GHz till 3 THz considering the requirements of high speed broadband data transmission, reduction of latency & congestion, and adoption of High Power Computation (HPC) technologies [3]. The 3rd Generation Partnership Project (3GPP) which was pivotal in creation of standards from 3G to 5G will also produce the specifications of 5G-Advanced and 6G [4]. The approval of 6G logo on 23 April 2024 is just the beginning of a new era in this next generation wireless personal communications [5].

2.2 Employee Engagement Through AI/ML

AI and ML are used immensely nowadays in various Human Resources Information Systems (HRIS) from recruitment, selection, job description, job analysis, performance management, task allocation etc. Many HRIS tools are available in market to monitor, regularise and keep track of employees' work. These tools have been in built with machine learning technologies to schedule time gaps between work, converting new polices to workable solutions, keep track of all the departmental activities through comprehensive workflow for departments in a dashboard and monitoring, payroll

management. Employee Engagement has been predicted and calculated using various factors through AI technologies such ML and Natural Language Processing (NLP) [6, 7]. The ML techniques used for personalisation of different facilities to employees available in policies of organisation can help to improve the job satisfaction of employee which in turn improves increased employee engagement [8]. The AI enabled chatbot functions help employees to quickly learn about the processes and procedures available in the organisations. This augmented intelligence elevates human-machine collaboration for complex decision-making [9]. Wearable technologies have potential of redefining the workplace wearables for safety, health & productivity monitoring to provide a predictive analysis for mitigation of occupational risks, allocation of resources and preventive diagnosis [10]. DeepTech Start-up trends indicate that the number of start-ups founded has doubled from 2022 to 2023 and with AI being the dominant technology (74%) [11]. A typical fund raising in HR domain with AI in the year 2023 by Atomicwork indicates the potential for revolutionising employee experience from employee success to employee enablement and further to employee support [12, 13]. Quick reviews of the advancements of HRIS indicate significant emphasis in workflow management, employee experience and talent management with enabling technologies of AI and Internet of Things (IoT). However, wireless personal communications is still a bottle neck in achieving the required automation of HRIS and the consequent enhancement of employee engagement.

2.3 Existing Regulatory Framework for Ethical AI in India

Regulatory Framework for AI in India is guided by National Institution for Transforming India (NITI) Aayog publications which include National Strategy for AI in June 2018 [14] and Principles for Responsible AI in February 2021 [15]. National Strategy for AI introduces the ethical concepts of AI by addressing the biases of AI & black box phenomenon and privacy aspects of AI by raising the concerns of asymmetry in companies having access to large quantum of consumer information & provisioning the consumer data from aggregator to developer for learning using differential privacy. Further, first part of the approach paper towards Responsible AI for All was released in 2021 towards embracing AI in an ethical manner with public trust in a progressive AI ecosystem. This exemplifies the ethical considerations of AI in terms of system addressing issues of transparency, consistency, appropriation of AI decisions, risk of privacy & security and

societal concerns of inimical use of AI. It also recalls the provisions of Information Technology act, 2000 (IT Act) and Constitution of India under tenets of equality, inclusivity & privacy towards framing principles for safety & reliability, equality, inclusivity & non-discrimination, privacy & security, accountability and protection & reinforcement of human values. However, the enforcement and the policy interventions for building a responsible AI with ethics is still awaited. Digital Personal Data Protection Act, 2023 (DPDP Act) has strengthened the concerns of digital personal data privacy with suitable amendments to Telecom Regulatory Authority of India, 1997 (TRAI), IT Act and Right to Information Act, 2005 (RTI). Government of India has proactively involved in the Global Partnership on Artificial Intelligence (GPAI) in coordination with Organisation for Economic Co-operation and Development (OECD) has renewed its commitment towards building Responsible AI for Good and for All [16]. In an effort towards connecting the public towards understanding the ethical, inclusive and responsible AI development considering the cultural values, India has celebrated AI appreciation day on 16 July 2024 [17]. Additionally, as a part of capacity building towards Make AI in India and Making AI for India, Cabinet of India has approved IndiaAI mission with INR 10,371.92 crores outlay for 5 years for creation of computational infrastructure, improvement of data quality and availability for AI development and deployment. AI Ecosystem in India is embracing the ethical development of AI with limited legal provisions of legally binding measures with growing user apprehensions on risks to social fabric.

3 Proposed Employee Engagement Methods in 6G Networks

3.1 Enabling Technologies & Maturity

Despite DeepTech start-up ecosystem facing a decline in the funding in 2023, AI and Internet of Things (IoT) has been key enabling technologies with investment focus [11]. The other technologies supported by DeepTech start-ups include Deep Learning (DL), NLP, computer vision, Cloud Computing, AR, VR & Mixed Reality (MR), Block Chain, 5G, Quantum Computing, Big Data, 3D printing and Light Fidelity (LiFi). The technological maturity can be assessed by the extent of patent filing in deep technologies is again topped by AI and IoT [11]. Comprehensive technology survey of AI/ML in 5G environment and 3GPP networks indicates insights into adoption in user & network levels and their associated challenges in control and

management [18]. Emphasis on novel techniques for edge computing for decentralised learning addressing privacy and the tradeoffs with accuracy & computational cost is the need of the day.

3.2 Employee Engagement Methods with AI/ML

6G networks support ultra low-latency, massive device connectivity and terahertz (THz) bandwidths. The proposed methods for enhancing Employee Engagement using AI/ML in 6G networks include:

- Seamless Connectivity: By use of 6G seamless network connectivity the employees working in diversified places can be connected without any interruptions.
- Immersive Employee Experience: The combination of 6G personal communication, AR & VR and block chain technology for further security [19] enhances the interaction between the employees during the meetings and discussions in a secured manner. This increases their personal engagement with commitment to the organisational goals.
- Workflow Management: Real time automation of routine tasks, resource allocation, immediate feedback & decision making, employee behaviour patterns, dynamic and flexible workflows help to enhance the engagement and productivity of the organizations.
- Talent Management: Smart screening of abundant resumes in lesser time, accelerating the process of on-boarding due to easy coordination between departments, tailored training programs for individuals and unbiased performance evaluation enhances the employee engagement which helps to attract and retain talent.
- Sentiment Analysis: Natural language processing (NLP) techniques such as sentiment analysis, Named Entity Recognition (NER), Topic Modelling, Text Classification and Machine Translation, Text Summarisation help to analyse the emotions of the text messages during their official conversation such as opinion about organisations when they are sharing the posts in social media, to make documents and sub documents using the conversation, translation of languages from one to another for easy understanding and summarisation of large meeting. Using 6G with the NLP techniques helps to employ these concepts in real-time. Real-time sentiment analysis helps to predict the emotions of the employees and helps the manager to motivate or act accordingly. Real-time machine translation, topic modelling, classification and summarisation ease the work of the employees. It helps eases of communication in diverse

network. Thus, burn out shall be avoided as if there were provided with assistance throughout the day.

3.3 Challenges & Ethical Issues with AI/ML

While utilising various methods for enhancing Employee Engagement using AI/ML, the challenges and ethical issues envisaged include:

- Regulations on AI: Growth of AI/ML based applications is likely to be impacted with stringent regulations on the AI-generated content and the transparency of algorithms to explain their decisions [20]. In order to obviate the dangers of misinformation, loss of jobs and risks to humanity, regulations are likely to become more soft measures than hard measures [21]. The only AI Act passed by European Union also classifies most HRIS functions such as employment, management and access to self-employment as High Risk in its risk-based ideology for AI systems [22]. Therefore, it is imperative for all the companies to follow responsible and ethical AI development with strict obligations for applications that have direct impact to human resources.
- Transparency & Consistency: AI/ML algorithms by virtue of the design has black box phenomenon leading to restrictions of visibility and implied lack of understanding of its consistent behaviour. When employees learn that your progression in the organisation is decided by AI/ML based HRIS, concerns over bias, discrimination and reliability remains significant.
- Appropriation & Proportion: Fear of AI/ML based decisions in an autonomous scenario for HR management poses concerns over responsibility and risk management of suboptimal performance. Additionally, proportioning the liability in such cases would be more complicated and tend to endanger the system's reliability. Modulation of language can change the message and can lead to loss of disengagement of employees. There is a tendency to provide concession to machine decisions while the man in the loop is usually penalised. With automation there is complacency in the monitoring of HR decisions and the consequent employee engagement.
- Privacy & Security Risks: Both privacy and security risks are legal obligations for implementing AI/ML based HRIS which are closely associated with employees' digital personal data for training the models. Typically, personal data being confidential in nature and any unauthorised access to any portion of the data has security ramifications.

- Societal Concerns: Common good as a primacy is desired for ethical implementation of AI based systems. However, the possibilities of misuse can lead to skewing policy decisions and misinterpretation, which cannot be ruled out. In continuous and online learning models, there are significant chances of drifting models by spoofing data owing to limited security features at end points.
- Technological Challenges: With the existing AI models, implementation of use cases in HRIS have various challenges due existing technological maturity of tools. A typical mandate of privacy is repealing of individual's consent, which cannot really unlearn the AI model.
- Innovation & Intellectual Property issues: Innovative designs of AI models for HRIS also face IP issues for ownership due to limitations of existing regulatory framework. This is applicable to various products, analysis and finding generated by AI models and suggestions or decisions for effective engagement strategies.

4 Validation of Proposed Employee Engagement Methods in 6G Network Environment

4.1 Research Design

The proposed employee engagement methods in 6G network environment is validated using qualitative analysis. The interview is held between the HR managers, business managers and employees in the startup organisation. The interview focused on the questions such as

(1) *Do you face issues in your network connectity? Is implementing the 6G network for wireless personal communications will boost your engagement in work?*
(2) *Do you think attending meetings with augmented/virtual reality increases your collaboration and coordination with team?*
(3) *Do you think the improved robust work flow management helps in optimising task accomplishment?*
(4) *In case the talent management activities such as screening, selection of resumes and tailored training and performance evaluation are carried out through AI/ML, will it impact the employees' acceptance of career progression?*
(5) *Assessment of emotional behaviour by analysis of patterns, summarisation of meetings & other related inputs by AI/ML based systems, will it be helpful to modify your future interactions?*

4.2 Hypothesis

Hypothesis: The proposed employee engagement methods in 6G wireless personal communications significantly impacts the employee engagement.

5 Results & Discussion

The flash interview method was used to carry out the data collection among 20 employees who are in different designations. The answers for the questions were substantiated with reasons by the respondents and clarified by appropriate follow-on questions as required. The findings, deliberations and deductions are enumerated.

5.1 Findings

The designed questions were posed to the respondents who had adequate understanding of fundamental principles of 6G networks, wireless personal communications methods and managerial aspect of employees in an organisation. The responses have been organised in a comprehensive subjective analysis.

- While answering the question "Do you face issues in your network connectivity? Is implementing the 6G network for wireless personal communications will boost your engagement in work?", irrespective of the assertion or negation about the issues in their network connectivity, most of them replied that seamless network connection will be helpful in boosting their work. While some of them raised concerns about the continuous connectivity to technology will affect their personal life. Additionally, cost, compliance and current satisfaction considerations caused apprehensions of technological adoption against the envisaged employee engagement goals.
- The question, "Do you think attending meetings with augmented/virtual reality increases your collaboration and coordination with team?", was predominantly answered as 'yes' with the reasoning of physical feel augmented with emotional connection with team members, reducing complexity by simulations/emulations of real world problems with 3D models/digital twins, and redefining the inclusivity over remote akin to face to face meetings. Concerns against technical challenges of adoption of visualisation from traditional methods of senior leadership and overheads for learning the AR/VR systems rather than purpose of the meeting.

- The question, "Do you think the improved robust work flow management helps in optimising task accomplishment?", was responded positively with accruing advantages of structured & planned activity, optimising time & resources, clarity in process & task assignment, and monitoring status, changes & feedback. While, enhanced accountability aided the organisation, some employees may feel being monitored leading to burn out if the update rate is faster than the realistic timelines. Additionally, concerns over complicated workflows, lack of compatibility to unstructured or emergent projects, reduced contingency handling due to increased dependencies, and high implementation costs.
- The question, "In case the talent management activities such as screening, selection of resumes and tailored training and performance evaluation are carried out through AI/ML, will it impact the employees' acceptance of career progression?", has been the most contentious question amongst both managers and employees. While the managers felt losing their controls, the employees felt their destiny is driven by machines. This objective method of career planning fails to fulfil the contextual requirements of organisation and individuals and is devoid of empathy & subjectivity of human touch. Tailored learning & development assisted the effective upskilling/reskilling is a popular choice of all. Transparency in talent management will build confidence & the required trust for a functional autonomy of the system.
- The question, "Assessment of emotional behaviour by analysis of patterns, summarisation of meetings & other related inputs by AI/ML based systems, will it be helpful to modify your future interactions?", was answered with scepticism. Advantages of accurate emotional assessment include tracking of changes to traits, enhanced self-awareness, proactive decision pointers, and effective communication. However, privacy concerns over misinterpretation of personal data & monitoring of psychological patterns of individual for modifications in organisational behaviour were significant.

5.2 Limitations

This research has been undertaken with limited by expert input in a subjective analysis. The paper primarily relies on qualitative data gathered from flash interviews from Indian subject matter experts, which limit the scope of evidence. Therefore, the conclusions drawn have perceptions limited to the best of the knowledge about the impeding technological changes envisaged.

While, the technological breakthroughs can modify the maturity, ease of uptake by employees and organisations. This will significantly affect few specific concerns which are sensitive to technological changes such as regional and global applicability, standards and compliance requirements. Only the Indian regulatory environment has been discussed in detail with relevant reference to the existing regulations across the world. Any paradigm shift in managerial principles that can affect the employee engagement is less envisaged.

6 Conclusion

The integration of AI enabled 6G wireless networks with workspace has ethical challenges and opportunities to improve employee engagement. 6G wireless technology has ability to revolutionise the seamless network connectivity, augmented/ virtual reality techniques for real time experience to boost employee engagement, in the mean time there are concerns about continuous monitoring affecting the personal life & missing the reality (face to face conversations). AI/ML enabled techniques such as real-time emotional behaviour analysis, easing of work flow management and talent management to attract and retain skills has the immense ability to enhance employee experience. Therefore, the hypothesis is proved to be the reality of future with Employee Engagement being significantly enhanced with 6G wireless personal communications. However the ethical usage of personal data, transparency, trust and accuracy of AI assessment are the greatest concerns. This shall affect the implementation of these features. The cost, compliance and the current satisfaction level also impact the implementation of 6G in the organisational system. The combination of ethical considerations and transparency while implementing the AI/ML techniques and the adaptation to the new technologies will be key in providing the impactful effect in the employee engagement. It is important to address these challenges to harness the full potential of AI enabled 6G personal wireless communications to foster the connected, collaborative and efficient workplace to gain productivity and retain the talent in the organisations.

6.1 Implications

The implications of ethical AI enabled 6G wireless personal communications include enhanced employee engagement, innovative talent management, improved workflow management & productivity, real-time emotional

analysis patterns, and collaborative advanced tools. Organisations can implement 6G to create more interactive, efficient and satisfying work environments to increase productivity of employees. The AI enabled 6G helps to bridge the gap between the remote diversified employees for better coordination and collaboration through immersive experiences. It can help the organisations to identify and nurture the talent to retain the skill by providing better career progression. Adoption of robust workflow management can streamline operations, optimises the task completion to enhance the overall productivity because of real-time feedback analysis, informed decision making and efficient resource allocation.

6.2 Future Suggestions

This research work provides the required insights in a simple yet comprehensive way of enhancing Employee Engagement through AI/ML in envisioned 6G network environment. The adaptation to the new technologies with AI enabled 6G may face resistance from employees because of the concerns about data privacy and security during the assessment of emotional behaviour and talent management. The ethical usage of training data and misuse of personal information will be the raising concerns. The AI/ML algorithms used should be transparent, fair and regularly audited to address the ethical standards. The organisations should adopt the strategic and customisable approach to harness the full potential of 6G wireless personal communications, in the mean time implementation of ethical AI considerations will boost the employee engagement, productivity and retain the talents in the organisation. In future, this study could be cross validated with additional real-world testing with larger, more diverse quantitative analysis.

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References

[1] D. C. Cox, ‘An evolution toward three large groups of applications and services Wireless Personal Communications: What Is It?’, IEEE Personal Communications, vol. 2, no. 2, pp. 20–35, 1995, doi: 10.1109/98.382529.

[2] 'IEEE SA – How 6G Can Transform The World and Technology'. Accessed: Aug. 03, 2024. [Online]. Available: https://standards.ieee.org/beyond-standards/how-6g-can-transform-the-world-and-technology/.
[3] T. S. Rappaport et al., 'Wireless communications and applications above 100 GHz: Opportunities and challenges for 6g and beyond', IEEE Access, vol. 7, pp. 78729–78757, 2019, doi: 10.1109/ACCESS.2019.2921522.
[4] '3GPP Commits to Develop 6G Specifications'. Accessed: Aug. 03, 2024. [Online]. Available: https://www.3gpp.org/news-events/3gpp-news/partner-pr-6g.
[5] 'New 6G logo approved'. Accessed: Aug. 03, 2024. [Online]. Available: https://www.3gpp.org/news-events/3gpp-news/6g-logo-approved.
[6] R. Emilia Sari, S. Min, H. Purwoko, A. Furinto, and D. Tamara, 'Artificial Intelligence for a Bettler Employee Engagement', 2020, doi: 10.21632/irjbs.
[7] C. García-Navarro, M. Pulido-Martos, and C. Pérez-Lozano, 'The study of engagement at work from the artificial intelligence perspective: A systematic review', Expert Syst, no. April, pp. 1–25, 2024, doi: 10.1111/exsy.13673.
[8] 'Combining HR and AI for Better Employee Management', Teleperformance. Accessed: Aug. 04, 2024. [Online]. Available: https://www.teleperformance.com/en-us/insights-list/insightful-articles/global/combining-hr-and-ai-for-better-employee-management/.
[9] R. Emilia Sari, S. Min, H. Purwoko, A. Furinto, and D. Tamara, 'Artificial Intelligence for a Bettler Employee Engagement', 2020, doi: 10.21632/irjbs.
[10] V. Patel, A. Chesmore, C. M. Legner, and S. Pandey, 'Trends in Workplace Wearable Technologies and Connected-Worker Solutions for Next-Generation Occupational Safety, Health, and Productivity', 2021, doi: 10.1002/aisy.202100099.
[11] 'Indian DeepTech Startup Landscape Report-2023', 2024.
[12] 'Atomicwork for HR Teams |HR Service Delivery'. Accessed: Aug. 04, 2024. [Online]. Available: https://www.atomicwork.com/solutions/hr.
[13] 'The inside story of our seed funding and product launch'. Accessed: Aug. 04, 2024. [Online]. Available: https://www.atomicwork.com/blog/atomicwork-seed-round-funding.
[14] 'National Strategy for Artificial Intelligence', NITI Aayog. Accessed: Aug. 03, 2024. [Online]. Available: https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf.

[15] 'Approach Document for India Part 1-Principles for Responsible AI', 2021.
[16] 'Press Release:Press Information Bureau'. Accessed: Aug. 04, 2024. [Online]. Available: https://pib.gov.in/PressReleasePage.aspx?PRID=2030534.
[17] 'Press Note Details: Press Information Bureau'. Accessed: Aug. 04, 2024. [Online]. Available: https://pib.gov.in/PressNoteDetails.aspx?NoteId=151932&ModuleId=3.
[18] T. Taleb, C. Benzaïdbenzaïd, R. A. Addad, and K. Samdanis, 'AI/ML for Beyond 5G Systems: Concepts, Technology Enablers & Solutions'.
[19] P. Bhattacharya et al., 'Coalition of 6G and Blockchain in AR/VR Space: Challenges and Future Directions', IEEE Access, vol. 9, pp. 168455–168484, 2021, doi: 10.1109/ACCESS.2021.3136860.
[20] 'Stringent regulations could hinder growth of AI in India: experts - The Hindu'. Accessed: Aug. 04, 2024. [Online]. Available: https://www.thehindu.com/sci-tech/technology/overly-strict-regulations-could-hinder-ai-growth-in-india-caution-experts/article68320814.ece.
[21] 'Geoffrey Hinton: AI "godfather" Geoffrey Hinton quits Google to spread awareness against "dangers" of artificial intelligence - The Economic Times'. Accessed: Aug. 04, 2024. [Online]. Available: https://economictimes.indiatimes.com/magazines/panache/ai-godfather-geoffrey-hinton-quits-google-to-spread-awareness-against-dangers-of-artificial-intelligence/articleshow/99949532.cms?from=mdr.
[22] 'AI Act |Shaping Europe's digital future'. Accessed: Aug. 04, 2024. [Online]. Available: https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai.

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