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ARTIFICIAL INTELLIGENCE AS ENHANCEMENT INSTRUMENT FOR OFFICE EMPLOYEE'S MOTIVATION

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Abstract. Job satisfaction and motivation are vital in companies' productivity rate. New technologies shape our well know world in the way it wasn't expected. The integration of Artificial Intelligence (AI) as an enhancement tool in various areas has gained significant attention in recent years. Steps are being taken to create new work experiences that include the use of AI as a motivation improvement tool. Main difficulties of implementation of AI are – common biases towards AI as an instrument which will theft workplaces, slow application of innovation by enterprises, and lack of simple way for applying such technologies. Main methodology is qualitative research of secondary data by metanalysis and systematic review of various types of works concerning motivation, correlation of it with productivity and its interconnection with job satisfaction, and finally framework where AI can be used as enhancement tool. Conclusion proposes deeper in-house research of behavior of employee tools it is applied on, and work towards biased opinion in the direction of AI by increasing education on this subject.

Keywords: Artificial Intelligence, Employee Motivation, Personalized Experiences, Task Automation, Data Privacy.

INTRODUCTION. Most of the time motivation in modern days overlooked at and not taken into account when business strategies are built. Employee motivation is crucial when steps towards improving work effectiveness and cost efficiency are taken. It is directly affects in situations which involves organizational success, productivity, is decided by this factor. Particularly in Small and Medium Enterprises (SMEs), vast majority of which revenue depends on the productivity of employees. SMEs productivity rates go up with higher employee engagement levels [1]. This effect seen not that much in big corporates which revenue depend on strategies made by managers and people who work in the "fields", because of the scales and decentralization of all processes. Even so, vast increase of motivation level can improve state of the big company's income. Due to lack of enormous budgets generally available to big concerns, opportunity to make research and study its weakness is inaccessible for this category of firms. SMEs are one of the major parts of the country's economy, and exceptionally vital in developing states [2]. This leads to indirect correlation of employee

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motivation with developing countries' wealth. Job satisfaction and performance connection is evident and noticeable [3]. Clearly motivation of worker is only one of the aspects for succeeding advance of economy, however it should be reckoned as a key factor for general nation's well-being and stable growth. Three industrial revolutions happened in the past of the humanity history, and the 4th on its early days, as a result of artificial intelligence achievements educational sectors benefit from information technologies [4]. AI, cloud computing and Internet of Things are based on the roots of the 3rd revolution, with increasing levels of information and continuous integration of tech and human-machine interfaces[5], globalization and decentralization is now the leading theme of the late 21st century. Information's role became main in the current fast paced technology centered states' economies and average citizens' everyday life as well. Human perceptions' capabilities are no match for rapidly growing information consumerism, which even shapes the way brain operates [6]. Information pollution is a modern term for the overflow of the information field with unnecessary and sometimes dangerous information, which can also leave its marks on employees' performance, leading to burnout, decreased productivity and lack of motivation in workflow [7].

Techniques and instruments for combating burnout syndrome and work-related stress with high effectiveness rate is appeared in studies [8], however it can result in extra expenses as a reformation of companies' healthcare policies. Personalized human support is in its beginning with approaches toward motivation of employee with applications such as "Naluri", nevertheless application still needs consideration and future improvements [9]. In the evolving landscape of the modern workplace, new technologies are playing an important role in changing of the way how staff members are managed in terms of motivation.

With the continuous evolution of technology, AI has appeared as a powerful tool capable of transforming various aspects of the office environment, including enhancing motivation among employees. This study aims to explore the role of AI in improving employee motivation, examining its impact on various sides of the workplace, and clarifying the potential benefits and concerns associated with its implementation.

Average employee can find the idea of keeping up with growing number of machine learning algorithms simply overwhelming. Taking another direction and rewriting not the methods of motivation of employee, but forming new kind of interaction between office team's members and Artificial Intelligence (AI) can change workflow itself by letting AI shape landscape of the work. It seems possible to use technology in the advantage of the staff for analysis of behavioral patterns and creation of a better condition for work. With AI analyzing most productive personal patterns and reducing work hours by automatization. The reduction in the working days and shift to 4 working days week shows its effectiveness already, by establishing healthy work-life balance [7]. There are room for further improvements and reduction of working hours to help employees to focus on creative work and actions requiring emotional intellect (for instance: supporting coworkers, holding long stressful communication with clients).

MAIN PROVISIONS. The integration of AI in the workplace has the potential to significantly enhance employee motivation through personalized experiences, task automation, and encouraging collaborative work environment. Addressing concerns related to job displacement, data privacy, and biases in AI systems is crucial to ensure that the implementation of AI augments, rather than hampers, employee motivation in the office.

RESEARCH METHODOLOGY. Methodology of this study is focused on the effect of Artificial Intelligence (AI) as an instrument for enhancing office employee motivation grounded on a qualitative metanalysis. Basing its research on theoretical framework, involving a comprehensive review and analysis of existing literature, theoretical models, and



case studies to explore and understand the various mechanisms through which AI affects employee motivation in office environments.

The approach primarily includes a systematic review of academic papers, scholarly articles, industry reports, and reputable publications focusing on AI applications in the workplace and employee motivation. This review aims to identify and analyze the theoretical underpinnings of how AI can influence motivational factors within office settings. Various theories, such as Maslow's hierarchy of needs, Herzberg's two-factor theory, and Self-Determination Theory, will serve as a foundational basis to comprehend the intrinsic and extrinsic motivational elements relevant to AI integration.

Furthermore, the examination of case studies from organizations that have implemented AI-driven initiatives to enhance employee motivation will provide practical insights into the real-world impact of AI applications. These case studies will be analyzed to extract key success factors, challenges, and implications arising from the implementation of AI as a motivational tool in different workplace settings.

The methodology also involves the exploration of ethical considerations and potential socio-psychological implications associated with the use of AI in motivating employees. This includes understanding the impact of job displacement fears, ensuring data privacy, and mitigating biases in AI systems, which can significantly influence the acceptance and effectiveness of AI-driven motivational strategies.

The selection of relevant literature studies will follow a systematic approach, ensuring that the sources used are credible, and contribute significantly to understanding the theoretical and practical implications of AI as an enhancer of office employee motivation. The combination of these various sources will enable an inclusive and strong theoretical framework to understand the complex relationship between AI and employee motivation in the office environment.

LITERATURE REVIEW. At its core, motivation in the workplace is a complex concept influenced by various factors, encompassing both intrinsic and extrinsic elements. Several theories, such as Maslow's hierarchy of needs [10], Herzberg's two-factor theory [11], and Self-Determination Theory [12], emphasize the significance of factors like recognition, autonomy, and a sense of purpose in fostering employee motivation. The integration of AI in the workplace seeks to address these elements by leveraging technological solutions to supply individual employee needs and preferences.

One primary way AI enhances motivation is through personalized experiences. AIpowered systems can analyze vast amounts of data to understand individual preferences, work patterns, and areas of interest [13]. By utilizing machine learning algorithms, AI can tailor recommendations and suggestions for professional development opportunities, task assignments, or even leisure activities within the office environment. For instance, an AIdriven platform can suggest skill development courses or projects aligned with an employee's career aspirations and interests, thereby enhancing their sense of purpose and engagement.

AI's capacity to restructure routine tasks contributes significantly to employee motivation. Routine administrative work often leads to monotony and decreased motivation among employees. AI, through automation and smart algorithms, can ease employees from repetitive tasks, allowing them to focus on more intellectually stimulating and meaningful work [14]. For example, AI-based systems can manage schedules, organize emails, and generate reports, thus freeing up employees' time to concentrate on tasks that require creativity and critical thinking.

AI also nurtures a collaborative work environment. Collaboration is a crucial aspect of employee motivation, as it promotes a sense of belonging and teamwork. AI facilitates



collaboration by enabling seamless communication, knowledge sharing, and team coordination. Intelligent chatbots, for instance, can provide real-time assistance and information, enhancing communication within teams [15]. Furthermore, AI-powered platforms can suggest suitable team compositions based on individuals' strengths and skill sets, thus optimizing productivity and fostering a sense of collective achievement.

The implementation of AI in the workplace also raises certain concerns that can potentially impact employee motivation. One significant concern is the fear of job displacement. Employees may feel threatened by the prospect of AI taking over their roles, leading to demotivation and decreased job satisfaction [16]. Addressing these concerns requires effective communication and transparency from management to assure employees that AI aims to augment their capabilities rather than replace them.

Another concern pertains to data privacy and ethical considerations. AI systems heavily rely on data to function effectively. The collection and utilization of employee data may raise ethical questions regarding privacy and consent [17]. To maintain high employee motivation, it is crucial for organizations to establish clear policies regarding data usage, ensuring transparency and respecting employee privacy.

The reliance on AI systems introduces the risk of technical failures or biases in decision-making [18]. If employees perceive AI as flawed or biased, it might negatively impact their trust in the system and subsequently their motivation to engage with AI-driven processes.

RESULTS AND DISCUSSION. *AI-Driven Personalization for Employee Motivation.* Artificial Intelligence (AI) has revolutionized the landscape of employee motivation in office environments through personalized experiences. The customization of work experiences tailored to individual preferences and aspirations has significantly impacted motivation levels. AI-driven personalization not only caters to the diverse needs of employees but also aligns work assignments and developmental opportunities, influencing their sense of purpose and engagement.

AI's ability to process extensive data and identify individual patterns plays a pivotal role in creating personalized experiences for employees [13]. This personalization begins with the analysis of an employee's work preferences, strengths, career goals, and interests. By employing machine learning algorithms, AI systems can recommend tasks, projects, or learning opportunities suited to individual aspirations. For instance, an AI-driven platform might suggest tailored skill development courses aligned with an employee's career path or assign projects that resonate with their interests. Such recommendations contribute to fostering a sense of value and relevance in the assigned tasks, enhancing an employee's intrinsic motivation [12].

Moreover, AI's personalization strategies extend beyond work-related tasks. By considering an employee's personal preferences or hobbies, AI can suggest leisure activities or social events within the workplace, further elevating employee satisfaction and engagement. For example, an AI system might recommend wellness activities or teambuilding events based on employees' interests, thus promoting a sense of belonging and enhancing their overall workplace experience.

Furthermore, the continuous learning capacity of AI systems ensures the adaptation and refinement of recommendations based on an employee's changing preferences and aspirations over time. The dynamic nature of these AI systems enables ongoing adjustments to accommodate evolving needs, thereby sustaining a high level of personalization in the workplace.



Several studies demonstrate the effectiveness of AI-driven personalization in employee motivation. Organizations that have successfully implemented AI for personalized experiences have reported increased job satisfaction, engagement, and a positive impact on retention rates [15]. These findings highlight the importance of tailoring work experiences to individual employee preferences as a key driver of motivation and satisfaction in the workplace.

However, challenges associated with AI-driven personalization include ensuring the ethical use of employee data, transparency in data collection, and addressing concerns related to employee privacy [17]. Maintaining trust and confidentiality while leveraging AI to personalize experiences is essential to uphold employee motivation and commitment.

AI-driven personalization significantly influences office employee motivation by tailoring work experiences, tasks, and developmental opportunities to individual preferences and aspirations. The continual evolution and refinement of AI systems ensure ongoing personalization, ultimately enhancing employees' sense of purpose, engagement, and satisfaction in the workplace.

Task Automation and Motivation.

In the contemporary workplace, task automation through AI stands as a significant tool in enhancing office employee motivation. The capacity of AI to streamline and automate routine tasks, liberating employees from monotonous responsibilities, has a profound impact on their motivation levels. This process enables employees to focus on more challenging and intellectually stimulating work, leading to increased job satisfaction and motivation.

AI's automation abilities rely on smart algorithms and machine learning to handle repetitive and mundane tasks, freeing up employees' time and mental energy [14]. For instance, administrative duties such as data entry, scheduling, or basic customer service can be efficiently managed by AI systems. By automating these tasks, employees can allocate their time and efforts to more engaging and high-value tasks that require creativity and critical thinking.

The liberation from mundane tasks positively affects employees' motivation by reducing monotony and enhancing job satisfaction. This aspect is crucial as mundane and repetitive tasks often lead to a decrease in motivation, with employees feeling disengaged or undervalued [11]. When AI takes over these routine tasks, employees can redirect their focus towards work that provides a sense of accomplishment and intellectual challenge, contributing significantly to their motivation levels.

Studies have shown a positive correlation between task automation through AI and increased job satisfaction. Organizations implementing AI-driven automation have reported higher levels of employee engagement, as individuals feel more fulfilled and productive in roles that emphasize their unique skills and capabilities [16]. This shift in focus from routine tasks to more stimulating work contributes to a greater sense of purpose and accomplishment among employees.

However, concerns arise regarding the potential fear of job displacement due to AI automation [16]. Employees might feel threatened by the prospect of AI taking over their roles, which could negatively impact their motivation and job satisfaction. Addressing these concerns is crucial for maintaining employee morale and ensuring that AI is perceived as a tool that complements and elevates their work rather than a threat to job security.

Moreover, effective implementation of AI-driven task automation requires careful management to prevent any negative consequences. Maintaining open communication and involving employees in the process of task reassignment or skill development can mitigate apprehensions and enhance acceptance of AI-driven changes within the workplace [14].



In summary, the integration of AI for task automation significantly influences employee motivation by relieving them from mundane tasks and allowing them to engage in work that is intellectually stimulating and rewarding. Nonetheless, addressing concerns related to job displacement fears and ensuring effective communication and involvement of employees in the process are essential to sustain and enhance employee motivation.

Fostering collaboration through Artificial Intelligence (AI) stands as a pivotal strategy in enhancing office employee motivation. AI-driven tools and platforms have significantly influenced the way employees communicate, share knowledge, and coordinate activities, ultimately contributing to a more collaborative and motivated work environment.

AI facilitates communication among employees, enabling seamless and efficient exchange of information, ideas, and feedback. Intelligent chatbots and communication tools powered by AI can provide real-time support and guidance, which not only improves communication within teams but also fosters a sense of interconnectedness and support [15]. Such platforms create an environment where employees feel more connected and engaged, leading to higher levels of motivation.

AI tools are instrumental in knowledge sharing by organizing and providing access to vast amounts of information within the organization. Intelligent systems can analyze data to offer valuable insights and suggestions, fostering an environment where employees have access to relevant information, leading to more informed decision-making and increased collaboration. When employees have access to the right information at the right time, it encourages a more collaborative atmosphere, enhancing motivation and engagement.

AI's role in team coordination is also noteworthy. By analyzing employees' skills, strengths, and past performance data, AI systems can suggest suitable team compositions, optimizing productivity and fostering a sense of collective achievement [13]. This optimized team dynamic promotes a sense of inclusivity and ensures that each team member's strengths are utilized effectively, contributing to overall motivation.

Studies have shown that organizations leveraging AI for collaboration have reported improved teamwork and higher levels of employee satisfaction. These organizations have witnessed a significant increase in productivity and innovation due to the collaborative environment fostered by AI [15]. When employees feel they are part of a collaborative team that values their contributions and skills, it positively impacts their motivation and job satisfaction.

Challenges related to AI-driven collaboration exist, such as the risk of biases in team compositions and decision-making processes. Biases in AI algorithms can potentially affect team dynamics and performance, leading to concerns about fairness and trust among employees [18]. Mitigating these biases and ensuring fair and transparent AI systems are essential to maintain and enhance motivation in a collaborative workplace.

AI significantly impacts office employee motivation by fostering collaboration through enhanced communication, knowledge sharing, and optimized team coordination. While the advantages of AI in collaboration are evident, addressing concerns related to biases and ensuring fair AI systems are crucial to sustain and elevate employee motivation in a collaborative work environment.

Challenges and Concerns in AI Implementation.

The implementation of Artificial Intelligence (AI) in the workplace, while offering numerous benefits in enhancing office employee motivation, also presents several challenges and concerns that need careful consideration for effective integration.



One of the primary concerns revolves around the fear of job displacement. Employees might perceive AI as a threat to their job security, leading to a decrease in motivation and job satisfaction [16]. Addressing this concern requires transparent communication from management to assure employees that AI's implementation aims to augment their capabilities rather than replace them.

Data privacy and ethical considerations also emerge as significant challenges. AI systems heavily rely on data, raising ethical questions regarding data privacy and consent [17]. To maintain high employee motivation, it is crucial for organizations to establish clear policies regarding data usage, ensuring transparency and respecting employee privacy.

Additionally, the reliance on AI systems introduces the risk of technical failures or biases in decision-making [18]. Employees might perceive AI as flawed or biased, which can negatively impact their trust in the system and subsequently their motivation to engage with AI-driven processes. Addressing these concerns requires continuous evaluation and refining of AI systems to minimize biases and errors.

Furthermore, the need for upskilling and retraining employees to effectively work alongside AI is a notable challenge in implementation. It's crucial to provide adequate training and resources to ensure that employees feel empowered and capable of working in harmony with AI systems [14]. This training not only contributes to employee satisfaction but also to the success of AI implementation in enhancing motivation.

Another challenge lies in the potential psychological impact on employees. The fear of change and uncertainties surrounding AI adoption can lead to resistance, affecting employee motivation negatively. Strategies to manage these psychological impacts, such as clear communication and change management initiatives, are essential for successful AI integration [11].

Successful integration of AI as an enhancement instrument for office employee motivation is contingent on addressing these challenges and concerns. Mitigating fears of job displacement, ensuring data privacy and ethical usage, minimizing biases in AI systems, providing adequate training, and managing the psychological impacts of change are crucial to sustain and enhance employee motivation in the workplace.

CONCLUSION. The integration of Artificial Intelligence (AI) as a tool to enhance office employee motivation represents a deep transformation in the contemporary workplace. Throughout this comprehensive review, it becomes evident that AI holds significant potential in influencing various facets of employee motivation, ranging from personalized experiences to task automation, fostering collaboration, and presenting both opportunities and challenges in its implementation.

AI-driven personalization offers a remarkable opportunity to tailor work experiences to individual employee preferences and aspirations. By harnessing machine learning and data analysis, AI can recommend tasks, projects, and learning opportunities tailored to an employee's career path, thereby boosting intrinsic motivation and providing a sense of purpose. Additionally, AI's capability to automate routine tasks alleviates employees from monotonous responsibilities, freeing up time for more stimulating and rewarding work. This liberation positively influences employee satisfaction and motivation by allowing them to engage in tasks that provide a sense of fulfillment and intellectual challenge.

Promoting collaboration through AI-driven tools and platforms significantly impacts employee motivation by improving communication, knowledge sharing, and team coordination. The ability of AI to offer real-time support, access to information, and optimized team compositions enhances a sense of interconnectedness and inclusivity, fostering a more collaborative work environment and promoting employee motivation.



Despite the evident benefits, the implementation of AI presents several challenges and concerns. Job displacement fears, ethical considerations regarding data privacy, biases in decision-making, the need for employee upskilling, and potential psychological impacts require meticulous attention. Managing these concerns is pivotal to ensure that AI implementation augments, rather than hampers, employee motivation.

To resolve these challenges, organizations must provide transparent communication, clear policies on data usage, continuous assessment of AI systems to minimize biases, ensure adequate employee training, and make effective change management initiatives. These efforts are crucial in abating employees' fear of job displacement and fears associated with AI adoption, which can negatively impact their motivation and overall satisfaction.

The successful integration of AI to enhance employee motivation requires a strategic balance. Organizations must recognize the importance of AI in transforming the workplace and acknowledge its potential to improve employee motivation. At the same time, it is critical to understand and manage the concerns associated with its implementation to maintain a positive work environment.

This scientific exploration into AI's role in enhancing office employee motivation underscores the need for ongoing research and development. As AI technology evolves, continued studies and practical applications will refine strategies to leverage AI effectively as a motivational tool in the office environment.

In conclusion, the integration of AI as an enhancement instrument for office employee motivation is a complex process. While there are high expectations of capability in personalization, task automation, and collaboration, it requires cautious consideration to discourse tasks and guarantee that it contributes positively to the workplace, enhancing employee motivation and overall satisfaction.

LITERATURE CITED

1. Nagori R. Improving Employee Engagement in Small and Medium Enterprises. Biginas, K., Sindakis, S., Koumproglou, A., Sarantinos, V. and Wyer, P. (Ed.) Small Business Management and Control of the Uncertain External Environment (Advanced Strategies in Entrepreneurship, Education and Ecology). - Emerald Publishing Limited, Leeds, 2022. – P.151-177 p. https://doi.org/10.1108/978-1-83909-624-220211010.

2. Small and Medium Enterprises (SMEs) Finance. Improving SMEs' access to finance and finding innovative solutions to unlock sources of capital [Electronic resource] // World Bank. Available at: https://www.worldbank.org/en/topic/smefinance (date of application: 12.07.2023).

4. Pratama H., Azman M., Zakaria N., & Khairudin M. The effectiveness of the kit portable PLC on electrical motors course among vocational school students in Aceh, Indonesia // Комплексное использование минерального сырья. – 2022. - № 320(1). – P.75–87. https://doi.org/10.31643/2022/6445.09.

5. Besimbayeva O., Khmyrova E., Tutanova M., Flindt N., & Sharafutdinov R. Modern data analysis technologies used for geomechanical monitoring. Review // Комплексное использование минерального сырья. – 2023. - № 326(3). – Р. 5–15. https://doi.org/10.31643/2023/6445.23

6. Korte M. The impact of the digital revolution on human brain and behavior: where do we stand? // Dialogues in Clinical Neuroscience. $-2020. - N \ge 22(2). - P.101-111.$ https://doi.org/10.31887/DCNS.2020.22.2/mkorte

7. Kelly O. M., Schor J. B., Fan W., Bezdenezhnykh T., Gu, G., & Bridson Hubbard N. The Four Day Week: Assessing global trials of reduced work time with no reduction in pay: Evidence from Ireland. - University College Dublin Press, 2022. – 34 p. ISBN 978-1-910963-65-4.

8. Stier-Jarmer M., Frisch D., Oberhauser C., Berberich G., & Schuh A. The Effectiveness of a Stress Reduction and Burnout Prevention Program // Deutsches Ärzteblatt International. – 2016. - № 113(46). – P.781-788. https://doi.org/10.3238/arztebl.2016.0781



9. Jesuthasan J., Low M., & Ong T. The Impact of Personalized Human Support on Engagement with Behavioral Intervention Technologies for Employee Mental Health: An Exploratory Retrospective Study //Frontiers in Digital Health. – 2022. - № 4. 846375. https://doi.org/10.3389/fdgth.2022.846375

10. Maslow A. H. A theory of human motivation // Psychological Review. – 1943. - N_{2} 50(4). – P.370-396. https://doi.org/10.1037/h0054346

11. Herzberg F., Mausner B., & Snyderman B. The motivation to work. New York: John Wiley & Sons, 1959. - 157 p.

12. Deci E.L., & Ryan R.M. Intrinsic Motivation and Self-Determination in Human Behavior. New York: Plenum Press, 1985. - 372 p. http://dx.doi.org/10.1007/978-1-4899-2271-7.

13. Rajkomar A., Hardt M., Howell M. D., Corrado G., & Chin M.H. Ensuring fairness in machine learning to advance health equity // Annals of Internal Medicine. – 2019. - № 171(1). – P.55-56.

14. Davenport T., & Ronanki R. Artificial intelligence for the real world // Harvard Business Review. – 2018. - № 96(1). – P.108-116.

15. Bughin J., Hazan E., Ramaswamy S., Chui M., Allas T., & Henke N. Artificial Intelligence: The Next Digital Frontier. – 2018 [Electronic resource] //? McKinsey Global Institute. - Available at: https://www.mckinsey.com/~/media/McKinsey/Industries/Advanced lectronics/OurInsights/How artificial intelligence can deliver real value to companies/MGI-Artificial-Intelligence-Discussion-paper.ashx (date of application: 23.04.2024).

16. Acemoglu D., & Restrepo P.Automation and new tasks: How technology displaces and reinstates labor // Journal of Economic Perspectives. – 2019. - №33(2). – P.3-30.

17. Kerravala Z. Data privacy: The new necessity in a post-GDPR world. – 2019 [Electronic resource] // Forbes. - Available at: https://www.forbes.com/sites/forbestechcouncil/2019/12/19/why-u-s-gdpr-style-privacy-laws-are-good-for-business/ (date of application: 28.04.2024).

18. Char D. S., Shah N.H., Magnus D., Hripcsak G., & Goldstein A. Implementing machine learning in health care-addressing ethical challenges // New England Journal of Medicine. – 2020. - №378(11). – P.981-983.

REFERENCES

1. Nagori R. Improving Employee Engagement in Small and Medium Enterprises. Biginas, K., Sindakis, S., Koumproglou, A., Sarantinos, V. and Wyer, P. (Ed.) *Small Business Management and Control of the Uncertain External Environment (Advanced Strategies in Entrepreneurship, Education and Ecology)*. Emerald Publishing Limited, Leeds, 2022, 151-177 p. https://doi.org/10.1108/978-1-83909-624-220211010.

2. Small and Medium Enterprises (SMEs) Finance. Improving SMEs' access to finance and finding innovative solutions to unlock sources of capital. Available at: https://www.worldbank.org/en/topic/smefinance (date of application: 12.07.2023).

3. Ilmaliyev Z.B., Patihan T., Tursunbekov D.M., Sansyzbayeva D.B., Kassymova G.K. Motivating factors of innovative research activities and barriers to R&D in Kazakhstan. *Cakrawala Pendidikan*, 2022, 41(3), pp.619-629. https://doi.org/10.21831/cp.v41i3.47704.

4. Pratama H., Azman M., Zakaria N., & Khairudin M. The effectiveness of the kit portable PLC on electrical motors course among vocational school students in Aceh, Indonesia. *Kompleksnoe ispol'zovanie mineral'nogo syr'ja* [*Complex Use of Mineral Resources*], 2022, 320(1), pp. 75–87. https://doi.org/10.31643/2022/6445.09.

5. Besimbayeva O., Khmyrova E., Tutanova M., Flindt N., & Sharafutdinov R. Modern data analysis technologies used for geomechanical monitoring. Review. *Kompleksnoe ispol'zovanie mineral'nogo syr'ja π [Complex Use of Mineral Resources]*, 2023, 326(3), 5–15. https://doi.org/10.31643/2023/6445.23.

6. Korte M. The impact of the digital revolution on human brain and behavior: where do we stand? *Dialogues in Clinical Neuroscience*, 2020, 22(2), pp. 101-111. https://doi.org/10.31887/DCNS.2020.22.2/mkorte.

7. Kelly O. M., Schor J. B., Fan W., Bezdenezhnykh T., Gu, G., & Bridson Hubbard N. *The Four Day Week: Assessing global trials of reduced work time with no reduction in pay: Evidence from Ireland.* University College Dublin Press, 2022, 34 p. ISBN 978-1-910963-65-4.

8. Stier-Jarmer M., Frisch D., Oberhauser C., Berberich G., & Schuh A. The Effectiveness of a Stress Reduction and Burnout Prevention Program. *Deutsches Ärzteblatt International*, 2016, 113(46), pp.781-788. https://doi.org/10.3238/arztebl.2016.0781.

9. Jesuthasan J., Low M., & Ong T. The Impact of Personalized Human Support on Engagement with Behavioral Intervention Technologies for Employee Mental Health: An Exploratory Retrospective Study. *Frontiers in Digital Health*, 2022, 4, 846375. https://doi.org/10.3389/fdgth.2022.846375



10. Maslow A. H. A theory of human motivation. *Psychological Review*, 1943, 50(4), pp.370-396. https://doi.org/10.1037/h0054346.

11. Herzberg F., Mausner B., & Snyderman B. *The motivation to work*. New York, John Wiley & Sons, 1959, 157 p.

12. Deci E.L., & Ryan R.M. Intrinsic *Motivation and Self-Determination in Human Behavior*. New York: Plenum Press, 1985, 372 p. http://dx.doi.org/10.1007/978-1-4899-2271-7.

13. Rajkomar A., Hardt M., Howell M. D., Corrado G., & Chin M.H. Ensuring fairness in machine learning to advance health equity. *Annals of Internal Medicine*, 2019, 171(1), pp. 55-56.

14. Davenport T., & Ronanki R. Artificial intelligence for the real world. *Harvard Business Review*, 2018, 96(1), pp.108-116.

15. Bughin J., Hazan E., Ramaswamy S., Chui M., Allas T., & Henke N. *Artificial Intelligence: The Next Digital Frontier?* (2018). Available at: https://www.mckinsey.com/~/media/McKinsey/Industries/Advanced lectronics/OurInsights/How artificial intelligence can deliver real value to companies/MGI-Artificial-Intelligence-Discussion-paper.ashx (date of application: 23.04.2024).

16. Acemoglu D., & Restrepo P.Automation and new tasks: How technology displaces and reinstates labor. *Journal of Economic Perspectives*, 2019, 33(2), pp.3-30.

17. Kerravala Z. *Data privacy: The new necessity in a post-GDPR world* (2019). Available at: https://www.forbes.com/sites/forbestechcouncil/2019/12/19/why-u-s-gdpr-style-privacy-laws-are-good-for-business/ (date of application: 28.04.2024).

18. Char D. S., Shah N.H., Magnus D., Hripcsak G., & Goldstein A. Implementing machine learning in health care-addressing ethical challenges. *New England Journal of Medicine*, 2020, 378(11), pp. 981-983.

КЕҢСЕ ҚЫЗМЕТКЕРЛЕРІНІҢ МОТИВАЦИЯСЫН ЖАҚСАРТУ ҚҰРАЛЫ РЕТІНДЕ ЖАСАНДЫ ИНТЕЛЛЕКТ ҚОЛДАНЫСЫ

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Түйін. Жұмысқа қанағаттанушылық пен мотивация компанияның өнімділік деңгейінде маңызды рөл атқарады. Жаңа технологиялар біздің жақсы таныс әлемді күтпеген түрде қалыптастырады. Жасанды интеллектті (AI) әртүрлі салалардағы жақсарту құралы ретінде біріктіру соңғы жылдары айтарлықтай назар аударды. Мотивацияны жақсарту құралы ретінде AI пайдалануды қамтитын жаңа жұмыс тәжірибесін жасау үшін қадамдар жасалуда. Жасанды интеллектті енгізудің негізгі қиындықтары – жұмыс орындарын ұрлайтын құрал ретінде AИ-ге деген жалпы көзқарастар, кәсіпорындардың инновацияларды баяу қолдануы және мұндай технологияларды қолданудың қарапайым тәсілдерінің жоқтығы. Негізгі әдістеме – мотивацияға, оның өнімділікпен арақатынасына және жұмысқа қанағаттанумен өзара байланысына қатысты әртүрлі жұмыс түрлерін метаталдау және жүйелі шолу арқылы қайталама деректерді сапалы зерттеу және ақырында, AI жақсарту құралы ретінде пайдалануға болатын құрылым. Қорытынды қызметкерлердің мінез-құлқын тереңірек зерттеуді ұсынады, ол қолданылатын құрылдарды және осы тақырып бойынша білім беруді арттыру арқылы AI бағытында біржақты пікірге жұмыс істеуді ұсынады.

Түйін сөздер: жасанды интеллект, қызметкерлерді ынталандыру, жеке тәжірибелер, тапсырмаларды автоматтандыру, деректердің құпиялылығы.

ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ КАК ИНСТРУМЕНТ ПОВЫШЕНИЯ МОТИВАЦИИ ОФИСНЫХ СОТРУДНИКОВ

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Резюме. Удовлетворенность работой и мотивация играют важную роль в повышении производительности компаний. Новые технологии формируют наш хорошо знакомый мир так, как никто не ожидал. В последние годы значительное внимание уделяется интеграции искусственного интеллекта (ИИ) в качестве инструмента повышения эффективности в различных областях. Предпринимаются шаги по созданию нового опыта работы, включающего использование ИИ в качестве инструмента повышения мотивации. Основными трудностями внедрения ИИ являются - распространенное предубеждение против ИИ как инструмента, который приведет к потере рабочих мест, медленное применение инноваций предприятиями и отсутствие простых способов применения таких технологий. Основная методология - качественное исследование вторичных данных путем метаанализа и систематического обзора различных работ, касающихся мотивации, ее корреляции с производительностью и взаимосвязи с удовлетворенностью работой, и, наконец, рамок, в которых ИИ может быть использован как инструмент повышения эффективности. В заключении предлагается более глубокое внутреннее исследование поведения сотрудников, на которых он применяется, и работа по формированию предвзятого мнения в сторону ИИ путем повышения уровня образования в этой области.

Ключевые слова: Искусственный интеллект, мотивация сотрудников, персонализированный опыт, автоматизация задач, конфиденциальность данных.

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