AI ADOPTION IN REGIONAL SOCIAL WORK PRACTICE

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Abstract:

Background: Artificial intelligence (AI) is becoming an important component of the digital transformation of public services, including social work. Its use offers opportunities for administrative support, more efficient information processing and the expansion of professional tools, while also raising ethical and organisational concerns. **Methods:** The research was conducted as a quantitative questionnaire survey on a sample of 83 social workers in the Rimavská Sobota district in Slovakia. The study examined respondents' age, workplace location, client age structure, form of social service provision and level of experience with AI. The hypotheses were tested using Spearman's correlation test, the Mann-Whitney U test and the Kruskal-Wallis test. **Results:** Social workers use AI mainly for text creation, information retrieval, administration and preparation of documentation. A weak negative statistically significant relationship was confirmed between respondents' age and their level of experience with AI ($r = -0.348$; $p = 0.001$). Statistically significant differences were identified according to workplace location and the form of social service provision. Differences according to the age group of clients were not confirmed. **Discussion:** The findings suggest that AI adoption in social work is shaped by both individual and contextual factors. Higher levels of experience are associated with urban workplaces and outpatient services, whereas residential services and rural settings show lower levels of experience. Ethical concerns, personal data protection and lack of practical skills remain significant barriers. **Conclusion:** AI can be a useful supportive tool in social work, particularly in administrative and information-related activities. Its implementation must be accompanied by systematic

education, internal guidelines and the preservation of professional judgement, human oversight and client dignity.

Keywords: artificial intelligence; social work; social workers; social service; ethics; regional differences

Introduction

Artificial intelligence is one of the most prominent technological innovations of the present time. It changes how information is processed, decisions are made, communication is organised, education is delivered and public services are managed. In social work, however, its use has a specific significance because the profession is based on working with human vulnerability, trust, personal data, professional assessment of life situations and decisions that may directly affect clients' quality of life.

The definition of artificial intelligence is not uniform in the literature. Nilsson (1998) emphasizes the imitation of selected human cognitive processes through technical systems [10]. Russell and Norvig (2021) [18] distinguish between systems that act humanly, think humanly, think rationally and act rationally. The European Commission (2020) highlights the ability of AI to analyse the environment, interpret data and, with a certain degree of autonomy, propose or carry out actions aimed at achieving defined goals [5].

Social work has its own value framework, which is decisive when considering AI. IFSW and IASSW (2018) emphasize social justice, human rights, collective responsibility and respect for diversity. NASW (2017) stresses service, human dignity and worth, the importance of human relationships, integrity and competence. Matoušek (2003), Oláh, Schavel, Ondrušová and Navrátil (2009) [12], and Mátel, Hardy and Bachyncová Giertliová (2015) [9] underline that social work is grounded in professional assessment, helping relationships, trust and respect for client dignity.

In practice, it is necessary to distinguish between AI as a supportive tool and AI as a decision-making tool. As a supportive tool, AI may assist with text creation, summarisation, information retrieval, administration and preparation of supporting documents. Kumar and Singh (2023) point to the potential of AI for

more efficient information processing and support for professional activity [8]. Afrouz and Lucas (2023) identify benefits of digital tools, while also highlighting uncertainties related to relationship quality, data protection and unequal access to technology [1].

Ethical issues are central to the use of AI in social work. Reamer (2019; 2023) [15,16] highlights the need for technological competencies and identifies risks related to informed consent, client autonomy, privacy, confidentiality, transparency, algorithmic bias and overreliance on technology. Boriščáková (2023) [3], Gallo and Balogová (2025) [7], Šebestová and Laščiaková (2025) [19], and Poklembová (2025) [14] similarly emphasize ethical grounding, data protection, human oversight and systematic education of social workers.

Materials and Methods

The research inquiry was designed as a quantitative cross-sectional study aimed at identifying factors influencing the extent to which artificial intelligence is used in the practice of social workers. The research instrument was a self-constructed questionnaire focused on demographic data, workplace context, form of social service provision, client age structure and experience with AI use.

The research sample consisted of 83 social workers operating in the Rimavská Sobota district in Slovakia. The choice of the Rimavská Sobota district is relevant from the perspective of social work, as it is one of the least developed districts of the Slovak Republic and has long been characterised by a less favourable socio-economic situation. Its specific features include a higher unemployment rate, labour migration, population ageing, lower regional economic performance and a higher proportion of socially disadvantaged groups, all of which may influence the nature of social work, the structure of clients and the availability of modern technological tools.

Women formed the majority of the sample (68 respondents; 81.9%). The largest age group consisted of respondents aged 41 to 50 years (25 respondents; 30.1%). In terms of professional experience, the largest group comprised social workers with 6 to 10 years of practice (33 respondents; 39.8%). According to the form of social service provision, respondents from residential social services were the most represented group (43 respondents; 52.4% of valid responses). In

terms of client age group, the largest proportion of respondents worked with seniors (45 respondents; 54.2%). Data were processed using descriptive and inferential statistics. Spearman's correlation test, the Mann-Whitney U test and the Kruskal-Wallis test were used to verify the hypotheses.

The aim of the research was to empirically examine the extent of artificial intelligence use in social work in relation to selected characteristics of social workers and their work environment. The study focused particularly on the relationship between AI use and the age of social workers, workplace location, client age structure and the form of social service provision.

H1: As the age of social workers increases, the likelihood of using AI in professional social work practice decreases.

H2: Social workers employed in urban environments use AI in practice more frequently than social workers working in rural settings.

H3: Social workers working with younger client age groups show a higher level of experience with AI use than social workers working with older client age groups.

H4: Social workers employed in residential social services have a statistically significantly lower level of experience with AI tools than social workers employed in outpatient and field social services.

Results

The results showed that AI use in social work is predominantly supportive in nature. Respondents use it mainly for text creation, preparation of reports and supporting materials, information retrieval, administration and documentation. AI is used less frequently in intervention planning or in activities directly related to professional decision-making about clients.

Table 1 Summary of hypothesis testing results

Hypothesis	Statistical test	Main result	Conclusion
H1	Spearman's correlation test	r = -0.348; p = 0.001	The hypothesis was confirmed.

H2	Mann-Whitney U test	urban: mean rank 49.42; rural: 33.24; p = 0.001	The hypothesis was confirmed.
H3	Kruskal-Wallis test	p = 0.179	The hypothesis was not confirmed.
H4	Kruskal-Wallis test and pairwise comparisons	Chi-square = 7.453; df = 2; p = 0.024	The hypothesis was confirmed.

Source: own elaboration

The first hypothesis revealed a weak negative statistically significant relationship between respondents' age and their level of experience with AI. The negative direction of the relationship means that as age increased, the level of AI experience tended to decrease. This result should not be interpreted as a simple lack of interest among older professionals; rather, it indicates the need for differentiated education and support.

The second hypothesis confirmed a difference according to workplace location. Respondents working in urban settings showed a higher level of experience with AI than respondents working in municipalities. The third hypothesis, focused on the age group of clients, was not confirmed. The fourth hypothesis showed a significant difference according to the form of service provision, with the highest level of experience among respondents from outpatient services and the lowest among respondents from residential services.

Discussion

The results show that AI use in regional social work in the Rimavská Sobota district in Slovakia is selective and predominantly supportive. Social workers use AI mainly in text-related, information-related and administrative tasks. This finding is consistent with Kumar and Singh (2023), who argue that AI may contribute to more efficient information processing and administrative support in social work [8]. Similarly, Afrouz and Lucas (2023) state that digital technologies offer benefits in service accessibility and organisation, but their use must be accompanied by professional and ethical reflection [1].

The low use of AI in intervention planning and in areas directly related to professional decision-making may be interpreted as appropriately cautious. Respondents use AI primarily where outputs can be more easily checked and where the risk of direct interference with the client's life situation is lower. This corresponds with Reamer (2023) [16], who argues that AI in social work must serve as a supplement rather than a substitute for professional judgement.

The confirmed relationship between age and AI experience can be interpreted through technology acceptance models. Davis (1989) emphasizes perceived usefulness and ease of use [4], Parasuraman (2000) [13] focuses on technology readiness, and Rogers (2003) stresses the compatibility of innovation with users' values and practice [17]. Fazi, Zaniboni and Wang (2025) further note that age differences cannot be explained solely by biological age, but also by access to training, previous experience and organisational support [6].

The difference between urban and rural settings can be understood in the context of the digital divide. OECD (2024) warns that generative AI may deepen regional disparities because access to technology, training and work opportunities is uneven [11]. In social services, this difference may be reflected in the availability of technical support, training opportunities and organisational capacity.

The form of service provision also proved to be an important factor. Outpatient services may more frequently involve counselling communication, preparation of supporting materials, administrative processing and information retrieval, all of which are areas where AI can be practically useful. Residential services are more closely linked to institutional routines, everyday care and direct client contact. Boetto (2025) therefore rightly emphasizes the need for practice models that integrate AI sensitively in relation to specific professional contexts [2].

Ethical concerns, data protection and lack of practical skills are among the most important barriers. These findings are consistent with Reamer (2023) [16], Boriščáková (2023) [3], Gallo and Balogová (2025) [7], and Šebestová and Laščiaková (2025) [19]. AI may support social workers, but its use must be linked to human oversight, confidentiality, transparency and clearly defined responsibility.

Based on the research results, the following recommendations for social work and social service practice may be formulated:

- Systematically develop AI literacy among social workers, including practical use of tools, critical evaluation of outputs, personal data protection and knowledge of the limits of generative AI.
- Create internal methodological rules for the use of AI in social service organisations, particularly in relation to permissible tasks, prohibited types of data, verification of outputs and responsibility for their use.
- Use AI primarily as a supportive tool in administration, information retrieval, summarisation and document preparation, not as a replacement for professional decision-making.
- Differentiate educational programmes according to workers' age, workplace type and form of social service provision.
- Connect AI implementation with consistent client protection, preserving dignity, confidentiality, transparency and professional responsibility.

Conclusion

The research showed that artificial intelligence enters social work gradually and unevenly. Social workers in the Rimavská Sobota district in Slovakia use it mainly for text creation, information retrieval, administration and preparation of documentation. They use it less frequently in intervention planning and in areas directly related to decision-making about clients.

The main contribution of the research lies in the verification of four hypotheses concerning the relationship between AI use and selected characteristics of social workers and their work environment. A weak negative statistically significant relationship between respondents' age and their level of AI experience was confirmed, as was a difference according to workplace location. The difference according to the age group of clients was not confirmed. The form of social service provision proved to be a significant factor, particularly in the difference between residential and outpatient services.

AI can support social workers in administrative and information-related activities; however, it cannot replace professional judgement, personal contact, relational work or professional responsibility. The future of AI in social work therefore does not lie in replacing social workers, but in developing a model of

technology use that improves service quality while protecting the dignity, autonomy and rights of clients.

References

[1] R. Afrouz, J. Lucas, "A systematic review of technology-mediated social work practice: Benefits, uncertainties and future directions," *Journal of Social Work*, vol. 23, no. 6, 2023. https://doi.org/10.1177/14680173231165926

[2] H. Boetto, "Artificial intelligence in social work: An EPIC model for practice," *Australian Social Work*, Advance online publication, 2025. https://doi.org/10.1080/0312407X.2025.2488345

[3] M. Boriščáková, "Umelá inteligencia, digitálne technológie a forenzná sociálna práca," *Journal socioterapie*, vol. 8, no. 1, pp. 19–27, 2023. https://doi.org/10.5281/zenodo.7588900

[4] F.D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319–340, 1989. https://doi.org/10.2307/249008

[5] European Commission, *White Paper on Artificial Intelligence: A European Approach to Excellence and Trust, Brussels*, 2020. [Online]. Available: https://ec.europa.eu/info/files/white-paper-artificial-intelligence-european-approach-excellence-and-trust_cs

[6] L. Fazi, S. Zaniboni, M. Wang, "Age differences in the adoption of technology at work: A review and recommendations for managerial practice," *Human Resource Management Review*, 2025.

[7] P. Gallo, B. Balogová, "Umelá inteligencia v kontexte sociálnej práce," *Journal socioterapie*, vol. 10, no. 3, 2025. https://doi.org/10.5281/zenodo.14589716

[8] A. Kumar, N.K. Singh, "Use of artificial intelligence in social work practice," *Indian Journal of Health Social Work*, 2023. [Online]. Available: https://aiamswp.org.in/wp-content/uploads/2024/08/IJHSW-522023-6-12.pdf

[9] A. Mátel, M. Hardy, D. Bachyncová Giertliová, *Teória a metódy sociálnej práce II*, Spoločnosť pre rozvoj sociálnej práce, Bratislava, 2015.

[10] N.J. Nilsson, *Artificial Intelligence: A New Synthesis, Morgan Kaufmann Publishers*, San Francisco, 1998.

[11] OECD, "*Generative AI set to exacerbate regional divide in OECD countries, says first regional analysis on its impact on local job markets*," OECD News Release, 2024. [Online]. Available: https://www.oecd.org

[12] M. Oláh, M. Schavel, Z. Ondrušová, P. Navrátil, *Vybrané kapitoly z dejín, teórie a metód sociálnej práce*, VŠZaSP sv. Alžbety, Bratislava, 2009.

[13] A. Parasuraman, "Technology readiness index (TRI): A multiple-item scale to measure readiness to embrace new technologies," *Journal of Service Research*, vol. 2, no. 4, pp. 307–320, 2000.

[14] Z. Poklembová, "Postoje študentov a študentiek sociálnej práce k umelej inteligencii," *Journal socioterapie*, vol. 10, no. 3, pp. 62–68, 2025. https://doi.org/10.5281/zenodo.14589726

[15] F.G. Reamer, "Social work education in a digital world: Technology standards for education and practice," *Journal of Social Work Education*, vol. 55, no. 3, pp. 420–432, 2019. https://doi.org/10.1080/10437797.2019.1567412

[16] F.G. Reamer, "Artificial intelligence in social work: Emerging ethical issues," *International Journal of Social Work Values and Ethics*, vol. 20, no. 2, pp. 52–71, 2023. https://doi.org/10.55521/10-020-205.146

[17] E.M. Rogers, *Diffusion of Innovations*, 5th ed., Free Press, New York, 2003.

[18] S. Russell, P. Norvig, *Artificial Intelligence: A Modern Approach*, 4th ed., Pearson, London, 2021.

[19] P. Šebestová, J. Laščiaková, "Rola a význam AI v praxi sociálnej práce: Nová paradigma v klinickom rozhodovaní," *Revue Vysokej školy Danubius*, 2025.