The Impact of Artificial Intelligence on Social Cohesion

Roqaya Cheragh Al-Raeesi[1], Amal Zakaria Mancy ELnemr[2], Faisal Al Matalka[3], Asmaa Ahmed[4], Amina Ibrahim Alamiri[5]

Abstract

The study has the objective of examining the effects of artificial intelligence on social cohesion in the context of using a qualitative analytical research approach that combines theoretical review with semi-structured interviews with (23) social workers in the Emirate of Sharjah. The research is looking to contribute to an enhanced understanding of the adoption of artificial intelligence in social cohesion, as well as identifying the potential benefits and challenges hindering its adoption effectively. The findings of the study showed a significant congruence with the current academic literature, as theoretical discussions have highlighted the high potential of artificial intelligence to improve the quality of social services through the analysis of big data, provision of evidence-based advice, and facilitation of access for the beneficiaries. However, this study identified a number of important problems, such as legal and ethical challenges posed by algorithmic bias, privacy breaches, and a lack of transparency in decision-making processes based on artificial intelligence. Additionally, the interviews identified a knowledge gap between technical developers and social workers, which prevents a full understanding of algorithmic processes and their implications for social decision-making. The findings showed an urgent need for the creation of clear-cut regulatory policies aimed at leveraging artificial intelligence in promoting social cohesion, as well as the introduction of specialized training programs aimed at enhancing the technical and professional competencies of social workers. The study promotes an overall framework that encompasses the development of legal frameworks, the development of technical capabilities, and the strengthening of cooperation between practitioners and developers, with the goal of finding a balance between technological progress and humanitarian values in promoting social cohesion.

Keywords: Artificial Intelligence, Social Cohesion, Digital Governance, Algorithmic Bias, Legal Regulations, Technology Ethics.

Introduction

With the speeding technological advancements, artificial intelligence has turned into a driving force that spreads in reshaping lifestyles and social interaction, necessitating the need to prepare a diligent examination of its implications on social cohesion in contemporary societies (Caliskan, Bryson, & Narayanan, 2017).

Social cohesion is known as the established links and mutual trust which brings members of society together and bring them happiness. It is an essential factor for ensuring stability and progress (Delhey, J., & Dragolov, 2016), especially in an era where digital technologies are

[1] Assistant professor /Sociology Department College of Art; University of Khorfakkan; Sharjah; United Arab Emirates, Email: dr.rukaiay@gmail.com
[2] Assistant Professor/ Department of Counseling Psychology; Faculty of Graduate Studies for Education, Cairo University, Email: Amal_elnemer@yahoo.co.uk, https://orcid.org/0000-0002-2065-1164
[3] Associate Professor of Sociology, Fujairah University, UAE. & (Al Balqa Applied University), ORCID https://orcid.org/0000-0002-0981-353X, Email: f.almatalka@uof.ac.ae
[4] Assistant Professor of Social Work, Fujairah University, UAE &Assistant Lecturer, Faculty of Social Work, Assiut University, Email: asmaa.ahmed@uof.ac.ae.
[5] Assistant professor/Sociology Department College of Art; Science and Information Technology; University of Khorfakkan; Sharjah; United Arab Emirates], Email: amina.alameeri@ukf.ac.ae

overlapped with the details of everyday life. The last decade has witnessed a tremendous growth in the incorporation of artificial intelligence technologies, leading to new opportunities for the improvement of service quality and interpersonal communication strategies. At the same time, this evolution has raised questions about the impact of these changes on social structures and interrelations (Jobin, Ienca, & Vayena, 2019).

It must be stated that artificial intelligence applications facilitate social interaction through the information being more precise and personalized to individual and collective requirements, fostering trust and social bonds (Taddeo & Floridi, 2018). Along with these benefits, there are considerable ethical and regulatory issues as privacy concerns and algorithmic discrimination arise, potentially eroding the basis of trust among counterparts and having a harmful impact on social cohesion (Mittelstadt et al., 2016).

The influence of artificial intelligence on society is also surfaced by the effects of linguistic and graphic biases that can be automatically pulled out from big data, which needs mechanisms to oversee and rectify these divergences to establish equality and justice(Caliskan, Bryson, & Narayanan, 2017).

Technologies of artificial intelligence are fundamental in transforming social media platforms as they allow for the analysis of social networks and the identification of interaction patterns, thereby helping in the establishment of new bases of cohesion within digital communities (Tripathi & Rosak-Szyrocka, 2024). However, technological advancements present regulatory dilemmas that require the establishment of legal and ethical frameworks whose function is to promote responsible use of such technologies while buffering against their likely threats to societal integration (Jarrahi, 2018). The advent of artificial intelligence-driven digital innovations has had powerful influences on employment patterns and labor markets, precipitating the development of new forms of human-machine collaboration in decision-making and their execution following them (Wilson, Daugherty, & Morini-Bianzino, 2017).

Likewise, these kinds of changes are at the heart of wealth and opportunity redistribution across populations thus presenting issues of whether artificial intelligence end up exacerbating social inequalities or transforming the structures of economic and social interactions that generate them for better or worse (Makridakis, 2017). Artificial intelligence leaders additionally are an expanding piece in assisting with dynamic in fill in the public and private foundations. This demands scrutiny of public policy and regulatory frameworks to ensure that these technologies align with the public interest.

Ongoing technological advancements will not only create future opportunities, but also challenges which call for adaptation of existing arrangements for social cohesion and digital governance. Academics recognize the importance of adopting a holistic paradigm that considers the role of digital evolution in the future (Müller & Bostrom, 2016; Davenport et al. 2020).

This new progress underscores the necessity of harmonizing different scientific domains, to articulate the best practices for leveraging the value of AI technology for enhancing social cohesion (Taddeo & Floridi 2018)

Conclusively, ongoing changes present a great potential for academic exploration. This study can be focused on the interaction of artificial smartness and societal forms. For this to be done, scientists and other interested parties need to be coordinated correctly, as this will help build a digital future that is beneficial for everyone.

Literature Review

We can state that artificial intelligence has become the inherent force of impact on social structures in a variety of directions. It calls for the reconsideration of theoretical models and constructs, which also used to explain social cohesion in the context of current digital change. Social cohesion is a certain interconnection and trust among members of society. It is the key foundation of stability and progress. The current studies have analyzed the given issue from different perspectives. They explain the influence of artificial intelligence technologies on the social process (Howard & Borenstein, 2018).

Empirical observations indicate that the increasing reliance on algorithms in decision-making and the use of digital technologies have fundamentally transformed social interactions among human beings. At the same time, the techniques applied in the analysis of big data have become central to the monitoring and forecasting of individual behaviors. This transformation also has been related to growing concerns for privacy and social fairness, leading to questions about the extent to which such systems support social cohesion or, conversely, undermine it (González-Bailón, 2019).

There is an emerging issue of algorithmic bias which is getting more attention as one of the major areas of current research. This bias has been seen in many studies that intelligent systems may have encouraged or even exacerbated existing social inequality, which may result in reduced levels of trust and social inclusion. This problem highlights the need for organizations to set up regulatory mechanisms and create ethical standards to ensure transparency and fairness of the data management, and increase the transparency of the algorithm in order to prevent such instances in the future (Chen, 2023).

Conversely numerous studies were carried out to investigate the influence of artificial intelligence on social capital and trust among social groups. In the survey by Gonesh et al. (2023) it has been revealed that the judicious application of technology can enhance social ties through the stimulation of the information exchange and the establishment of integrated communication networks in compliance with the principles of transparency and justice.

Further research has shown that the above uses of automated decision-making have the potential to impact social cohesion through the creation of digital divides between different populations and hence enhance the probability of widening the gap between the dominant individuals and those that are marginalized. The report of Kothandapani (2019) specifically emphasized the issue pointing to the critical necessity to ensure fairness in the creation and use of such systems.

From a digital policy perspective it emerged issues of power and control wielded by internet platforms and algorithms over society. Van Dijck et al. (2018) addressed the topic of "algorithmic power" and its influence on public opinion-forming and political decision-making, and promoted a more vigorous discussion of the role of the state and institutions in the governance of such technologies.

Moreover, questions have been raised by the research on data ethics and privacy in regard to how artificial intelligence technologies are being put to use in the context of social cohesion. The need to establish deep ethical frameworks was stressed by Zwitter (2019) that aim to combine the forward movement of technology and the protection of individual and group rights in the digital era.

The future challenge is to develop policies and institutional practices for the responsible and

inclusive use of digital technologies by the state. OECD (2019) and Marwick (2018) have pointed out the need for public participation. It involves all interested parties in the debate on the future of artificial intelligence while Molloy (2020) indicated that it is possible to use artificial intelligence to enhance social resilience and mitigate digital divides.

Research Methodology

The current research aims at examining how artificial intelligence influences social work. It is intended to be done with an analysis of theories and the semi-structured interviews with and by 23 social workers in the Emirate of Sharjah. This study seeks to offer a comprehensive and holistic understanding of artificial intelligence application in social work that includes potential advantages and limitations possible to prevent its implementation in the sector.

The present study is characterized by its qualitative and analytical nature, merging theoretical analysis and empirical field interviews in order to generate sound scientific inferences that foster professional growth in the practice of social work. Social work, thus, as an important discipline naturally dependent on human interaction, necessitates a thorough examination of the degree to which contemporary technology, specifically artificial intelligence, impacts its daily operations and efficiency in serving people and communities.

Research Design

There was the utilization of a qualitative research design that combines between theoretical analysis and semi-structured interviews. The design aids in providing a comprehensive image of the study subject. The design enables intensive data analysis to boost the ability to draw clear conclusions to around the impact of AI on social work.

Theoretical analysis is a basic method of comprehending the dynamics of artificial intelligence in social formations, whereas semi-structured interviews enable the gathering of firsthand data from professionals with the right experience and expertise in the area. The two-pronged strategy helps in explaining the correlation between theories learned and their applications.

Data Collection Tools

Theoretical Analysis

The curent study relied on a literature review of several references that concentrate on various aspects of using artificial intelligence in the social field, espessally; ethical, legal, and applied dimensions.

Among the research that has been conducted, **Caliskan et al. (2017)** examined the bias phenomenon in machine intelligence. The study demonstrated how language patterns embedded in intelligent models can affect social decision-making, thereby raising concern regarding the fairness of such technologies and their impacts on social justice.

Brougham and Haar (2018) undertook research showing that artificial intelligence and smart technologies are more and more important in reshaping the work environment, having the ability to impact traditional employment both positively and negatively. Despite AI having the ability to advance the effectiveness of social cohesion through data analysis along with evidence-based recommendations, it also creates challenges for the professional training and qualifications of social workers.

Nevertheless, Jobin et al. (2019) scrutinized worldwide artificial intelligence ethical standards

and discussed multiple ethical issues present in the integration of AI into social services and underlined the necessity of developing regulatory frameworks that will ensure the ethical usage of such technologies.

Mittelstadt et al. 2016 conducted a study that thoroughly explored the ethical issues associated with the use of algorithms and their influence on the decision-making process in social institutions. The research found that advanced software can in some cases improve the effectiveness, while in others it can extend the existing inequalities.

Floridi's research (2019) emphasized the need for setting ethical regulations for trustworthy AI development. He noted that ethical rules require a successful interpretation into efficient regulatory policies.

Cath 2018, from the legal and technical perspectives, showed the challenges of using artificial intelligence, emphasizing the need for the final regulation of laws to balance the development of technology with the respect of citizens' rights.

Gasser and Almeida (2017) have explored the multi-level model of governance of artificial intelligence, which requires the preparation of regulations ensuring its ethical use.

Mehrabi et al. (2021) showed how bias in machine learning algorithms could be amplified when the datasets are biased and unbalanced or the algorithms are not transparent.

Shrestha et al. (2019) inquired into the ways in which AI is changing the nature of organizational decision making, with particular attention paid to how organizations are beginning to think about inserting technology into human processes.

Winfield (2018) reflected on his own regulatory issue of artificial intelligence, confirming that the current law is not equipped to regulate this sector, especially in terms of legal responsibility.

Rahwan (2018) suggested the framework of society-in-the-loop as an approach to inject social and ethical inputs into automated decision-making.

Whittlestone et al. (2019) were categorical in stating that ethical principles are not enough to guarantee the responsible application of artificial intelligence, mentioning the necessity for creating strategies of application that will reconcile the conflicting values.

Cave's (2019) Study on the Social Issues Raised by AI Emphasizes the Need to Align the Technology with Societal rather than Carelessly Impose it.

Lastly Taddeo & Floridi (2018) emphasized the positive contributions of AI in society by underlining its assistance in enhancing efficiency and enabling social support processes through intelligent applications that help in delivering more accurate and efficient services.

According to the above mentioned reviews it is evident that AI can have transformative potential in enhancing social services. However, it also raises challenges, which demand ethical and legal solutions to secure the optimal use of these technologies not at the expense of justice and fairness principles.

Semi-structured Interviews

The semi-structured interviews have taken place with 23 social workers-inhabitants of Sharjah, who have been working in different fields and contributing to the full understanding of the impact of AI on the social work. These fields are:

Analyzing AI's potential application in the improvement of social care services and support for beneficiaries is a rather interesting and complicated task.

Smart Technology and Family Child Support: A Discussion about the Role in Providing Family Support and Assessing Children's Social Conditions was the title of the lecture.

Mental Health: How AI Can Help in Psychological Counselling or in Developing Analytical Tools for Psychologists.

Social Rehabilitation: Discussing the use of AI in enhancing social rehabilitation programs for social reintegration.

Research Procedures

Design of Interview Questions: A comprehensive interview guide was designed based on the review of previous literature. Questions included key factors, such as:

- The use of artificial intelligence in social work.

- Impact of Technology on Social Workers' Professional Judgments

- Ethical and legal issues arise when using AI in the field.

- Potential opportunities lie ahead for the application of artificial intelligence (AI) within the domain of social work.

Data Collection

The interviews were conducted over a period of two months and were documented using audio recording and written transcripts to ensure accurate analysis. Objective analysis technique was used to extract key patterns from the collected data. The results were divided into main topics based on their frequency and importance in analyzing the phenomenon under study.

Research Findings

The research results demonstrated that artificial intelligence provide significant opportunities to improve the efficiency of social work, as it can be used to analyze big data to extract meaningful patterns that help in making evidence-based decisions. AI also contribute to present accurate recommendations that enhance the quality of social services, in addition to its role in facilitating and improving communication mechanisms with beneficiaries, whether through smart assistants, chatbots, or predictive applications that contribute to providing faster and more personalized support.

Though, these optimistic potentials have great limitations that influence on AI's using and adopting in social field through responsible and effective way. Three key challenges were recognized in particular, these were:

1. Literally, newly introduced research has shown that so-called intelligent systems can copy pre-existing bias from society or even enhance its launch against certain groups, which can lead to unequal decisions or discrimination. The reason may be in the unequal training data, or the artificial intelligence that has been built without an understanding or consideration of social disparities, which, instead of reducing them, can expand the gaps.

2. Professional interviews demonstrated the absence of any legal, and regulatory frameworks which define how AI is used in social service delivery. The absence raises concerns

about privacy, accountability, and transparency of decisions that are made by intelligent systems, thus, the development of clear policies to regulate this field is necessary.

3.   The results from a survey of social workers indicated a gap in the knowledge and skills required for effective use of AI in the social sector. A large majority of practitioners have not received the appropriate training as to how they could integrate technology within their daily work; this impacts their ability to benefit from the available potentials and increases their concerns towards the impact of technology on their profession and traditional roles.

The resulting need for integrated approaches to addressing these challenges is based on the elaboration of unambiguous regulatory norms, the improvement of the quality of data for training intelligent systems, the growth of training and professional qualification programs that could provide the integration of technology and social practices in such a way as to ensure the maximization of benefits and the non-violation of humanitarian and ethical principles of social work.

Discussion of the Results

When comparing the interview results with previous literature, it turned out that there is a clear convergence between the challenges and opportunities provided by AI in the social field. On the one hand, theoretical studies have emphasized the great potentials of these technologies in improving the quality of social services through analysing big data, presenting evidence-based recommendations, and enhancing access to beneficiaries. On the other hand, these studies have highlighted the obstacles that may obstruct the achievement of these benefits, which embodied in the ethical, legal, and professional issues that facing the adoption of AI in this field.

One of the most prominent aspects that demonstrated consistency between previous studies and field research findings is the urgent need to set clear policies to control the use of AI in social work. The literature has indicated that the absence of legislation may lead to risks related to bias, privacy violations, and a lack of transparency in AI-backed decisions. The concerns of social workers were reflected in the area of concern. This was the potential misuse of the sensitive data of individuals, or the making of automated decisions. They may lack the human dimension. This is very important in social work.

After that, additional information revealed a discrepancy in understanding between social practitioners and technical developers, as social workers find it difficult to understand the algorithms that are used to make decisions. This challenge is confirmed by works such as Mittelstadt et al. (2016), where the ethics of algorithms were considered, and the need to increase transparency and accountability of intelligent systems used in social areas was shown.

Prior literature underscored the importance of integrating professional training in artificial intelligence in the curricula of social work. This coincided with the opinions of the research participants who stressed the primary necessity of creating special educational programs that would help them to comprehend the perspectives of AI and increase their capacity to use it correctly and ethically.

Based on these comparisons, it becomes clear that solving the problem of artificial intelligence in social work is not only a matter of technical aspects. On the contrary, it requires a complex approach, which includes the development of the policy in the field, increasing the level of technical awareness of employees of this type of work, and promoting cooperation between specialists of these areas in order to ensure a balance between technology and the humanitarian

principles on which social work is based.

Conclusion and Recommendations

Based on the findings, the research recommends the following:

• Create targeted artificial intelligence training courses for social workers to improve their understanding and capacity to use the technology ethically and efficiently.

• Establishing unambiguous policies governing the use of artificial intelligence in social services will help to strengthen ethical and legal guidelines.

• Future studies on how artificial intelligence affects social work should be more focused, especially with regard to algorithmic biases and their influence on professional choices.

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