

The Challenges of Artificial Intelligence in Grassroots Social Governance

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Abstract: *The entry of Artificial Intelligence (AI) into the field of social grassroots governance has profoundly changed the traditional social governance model and promoted the innovation of grassroots social governance. However, in the process of social grassroots governance practice, some negative impacts have also emerged, focusing on the privacy and ethical issues brought by AI, the digital risks brought by information barriers and the synergy problems among governance subjects, as well as the impact on civic culture. How to dissipate the negative impact of AI technology into grassroots social governance becomes an important link to realize the modernization of grassroots social governance.*

Keywords: *AI, Grassroots social governance, Risks*

1. Introduction

AI is still in its infancy and we must face up to its problems in order to improve it in future applications. In social governance, grassroots governance has always been an important component. AI has played a great advantage in grassroots governance, directly facing the citizens and providing them with various public services, which has greatly improved the efficiency of governance. AI can help grassroots cadres quickly grasp the main contradictions and problems of social governance through techniques such as data collection, analysis and model building, and propose scientific and rational decision-making solutions that achieve reasonable optimisation in the allocation of public resources. For example, in urban management, the use of AI technology can predict population flow trends and growth through data analysis, and plan ahead for traffic congestion, urban planning and other issues. In community management, AI can provide residents with more convenient assistance in public order enquiry and management, waste classification and disposal, and other aspects of grassroots community governance. However, AI is like a double-edged sword when applied to social governance practices, and there are some limitations. This paper will elaborate on three aspects: ethics, the process of AI participation in social governance, and citizenship culture. AI is still in its infancy, and we must face its problems squarely in order to improve it in future applications.

2. Ethical Issues of AI into Grassroots Social Governance

Privacy issues are an important ethical challenge for AI in grassroots governance in society. AI technologies require a large amount of data analysis and collection, which will involve private information of individuals or businesses. For example, some grassroots communities may have AI technology-based policing systems in which police may arrest suspects through photo recognition and face recognition technology. However, such systems violate citizens' privacy rights and pose security problems for people. Artificial intelligence technology needs more secure technical measures to ensure that data is not leaked. Therefore, it is important to ensure the legal and orderly use of personal privacy and prevent the ethical risks arising from the leakage and misuse of private information by AI technologies.

Algorithmic ethics is another important challenge. AI is a technology based on data and algorithms, but the problem is that the data on which the algorithms are based is often only partial and not comprehensive and objective. This can produce decisions that are based on bias and errors, such as discriminatory monitoring and control of certain social groups. When such algorithms are applied to grassroots social governance, violations of the rights of others may become more common and of wider concern.

Ensuring fairness and transparency is another important ethical challenge. AI technology itself does not have judgment and moral consciousness, and it is difficult to perceive human emotions, intentions and attitudes completely and accurately when applied, and the results of its analysis and decision-making can directly affect the public interest and social justice in society. Therefore, it is important to ensure that the application process of AI has fairness, transparency and accountability to avoid injustice and discrimination caused by AI technologies. In particular, it is important to ensure that the application of AI technologies does not violate human rights and dignity, and that human responsibility and dignity should always be at the center of the application and development of AI technologies.

In addition, questions about the costs and benefits of AI have come under ethical scrutiny. While AI technologies may have long-term benefits for basic community governance, such as the ability to improve the efficiency and accuracy of social governance, the balance between costs and benefits must be assessed on the basis of fundamental principles such as human nature, ethics and social welfare.

3. Digital risks of AI entering social grassroots governance

The entry of AI into grassroots social governance generates digital risks, mainly based on two reasons: on the one hand, the update of governance technology requires governance objects to have certain hardware conditions, i. e. , computers, smart phones, etc. , and governance objects lacking information equipment are not. On the other hand, the update of governance technology also requires governance objects to have certain "soft power", i. e. , the ability to use information technology skillfully, the ability to analyze and discern data, etc. Without such ability, governance objects cannot benefit from information technology and may even be adversely affected by it. If they do not have such ability, they cannot benefit from IT and may even be adversely affected by IT.

The lack of widespread use of smart devices is a major factor in digital risk. The majority of community residents do not have access to or use Internet-enabled devices, which means they do not have access to all the conveniences of AI technology. The application of AI technology not only represents a technological breakthrough, but also reflects the trend of modernizing social governance. However, for users, the application of AI technology also requires specific hardware and software environments. This requires us to take into account the use of community residents when applying AI to avoid the further weakening of social sharing caused by the "digital divide".

In addition, the mismatch of technology synchronization is also a source of digital risk. There is a huge gap between the tasks of grassroots governance in different geographical areas. The application of artificial intelligence technology has created a new group of "information poor" and increased the imbalance in the use of digital information. The "information poor" generally has two meanings: one is people with low information literacy; the other is people who have little information and do not use it^[1]. Some more remote areas face special social governance problems due to inconvenient transportation and low population density, and thus are also difficult to solve effectively with the help of intelligent technologies. This also brings constraints to the popularity and application effect of AI technology.

The decline in community governance participation and governance is an important constraint to digital risk. Smart-based community regulation and grassroots community governance may weaken the ability to participate democratically, handle public affairs, and build community consensus. The idea of over-reliance on regulatory systems for the application process of smart communities and AI-based management invokes a situation where the administration strictly controls community governance, while weakening citizens' willingness to govern themselves in the long run. At the same time, the uneven application of AI technologies can lead to differences in citizen participation. Community governance also differs markedly in terms of practicalities and policies and regulations in urban, rural, and remote areas. In some grassroots governance arenas, the promotion and application of AI technologies still face many challenges. Community residents and citizens generally lack the necessary technical equipment and knowledge, and identifying the risks and costs associated with AI requires a higher level of technical literacy and public awareness to achieve. In such a context of wide variation in technology and social participation, it is crucial for community governance to establish an autonomous community governance system that focuses on citizens' conscious participation, and to enhance citizens' participation capacity and governance level comprehensively.

Therefore, in the process of grassroots community governance and AI technology application, we need to pay more attention to citizen participation, improve the effectiveness of governance and public services, pay attention to the improvement of citizen governance capacity, improve the community self-governance mechanism and community governance chain, better achieve the integration of grassroots

community autonomy and community participation, and promote the popularization of social services and the improvement of community governance through quality public services, community capacity building and comprehensive social governance.

4. Inter-subjective Synergy of AI into Social Grassroots Governance

AI technology is widely used in the field of social governance, which has aroused great concern among governance subjects. However, AI has not become a governance bond and medium among multiple subjects, but on the contrary, it has become a segregation zone among multiple governance subjects.

AI relies on large and sophisticated data and algorithms, which are often monopolized by some institutions or governments. Therefore, the support and service of AI for governance subjects must also be "partial". In reality, the state and government departments usually apply AI in the management of their own affairs in order to improve the efficiency and quality of governance, which may result in rigid governance mechanisms, top-level design and professional team management. These governance mechanisms will relatively separate the subject of governance from the citizens, but its inner mechanism and practical utility are not as satisfactory as the situation.

The powerful and professional nature of AI technology makes its application scope limited. On the one hand, governance subjects have high requirements for the use of AI technology, which requires rich data and mature algorithm support. This makes few non-professionals able to fully participate in the process of AI technology application, and it is more difficult for groups such as community residents and ordinary individual developers to explore and use the advantages of AI technology, which in turn tends to lead to further differentiation and segregation between different layers of the technology society.

Therefore, based on the optimization and specialization of technology, AI technology does not become a governance bond and medium between multiple subjects, but rather there is a certain amount of segregation and differentiation. For this reason, we need to focus more on improving the awareness of people around us about AI technology and carry out corresponding technical training to effectively attract non-technical people, such as community residents, to participate in AI technology development and construction work. In addition, we need to establish some AI technology platforms and applications that are available for public use, so that more governance subjects and community residents can participate in the process of applying AI technology. In this way, we can expand the audience of AI technology, promote the development of AI technology in the direction of universality, strengthen the participation and collaboration of technology in community governance, and thus enhance the cooperation and connection among governance subjects, which is the inevitable trend of AI technology development and the direction of social development.

5. Administrative Issues of AI into Community Governance

The entry of artificial intelligence into the field of community governance may bring adverse effects on administrative processes. The main manifestation is that the application of AI technology may weaken the subjective initiative of decision makers and reduce the effectiveness and precision of decision making. Although technology can build more accurate models and algorithms to process various kinds of data, the ability of AI to process data is still limited, and it cannot completely replace human thinking and judgment. Moreover, in the event of machine failure, unexpected events and other problems, AI cannot make timely and correct responses as humans do.

AI technologies, when applied in grassroots social governance, often rely on data and algorithmic models, which may need to be manually processed and formulated in decision-making. This may lead to different levels of understanding and mastery of the data and algorithmic models used in decision making by decision makers, and significant differences in the level of agreement on the decision results, which may lead to greater social conflicts and political risks.

The promotion of AI technology in grassroots social governance cannot be generalized, because the actual application will also be restricted by various practical conditions. If we promote the application of AI technology based only on personal awareness and willingness, but cannot solve the shortage of funds and technical personnel, we will encounter many inevitable difficulties. In addition, although rigidity is not the only constraint in the "shared" nature of AI, it still affects the administrative decision-making process for grassroots society. Therefore, we need to reflect on the practical problems and limitations of

AI technology in grassroots social governance, and strengthen the comprehensive planning of AI technology application to overcome these disadvantages and make it better serve the effectiveness and efficiency of public governance.

6. AI into the grassroots social governance of the cadres Relationship issues

In the process of citizens becoming the main body of social governance, the popularity and application of artificial intelligence technology has provided new opportunities and possibilities for the establishment and development of the relationship between the cadres and the masses. Through the information system of AI technology, community governors can show the results of governance in a timely manner, so that citizens can better understand the logic and data sources behind governance decisions and know more intuitively the actions and contributions of governors. Not only does it enhance citizens' trust and participation in community governance, it also stimulates governors' motivation and initiative, allowing governors to mobilize and lead the entire community governance system more.

Every time a new technology and a new way of looking at the world, the economic system and social structures are profoundly transformed^[2]. Traditional governance methods and means are often subject to constant complaints from the public, who are more worried about unfairness and formalism in governance and lack of feedback and channels to make comments and suggestions on governance effectiveness. In this context, artificial intelligence technology provides a more efficient and convenient community governance model. Citizens can directly participate in social public decision-making and social governance through the Internet platform, making the relationship between the government and the people no longer only a one-way relationship between the governor and the governed, but more equal and interactive.

However, the entry of AI technology into the field of social grassroots governance also has a negative impact on the cadre relationship. On the one hand, the large-scale application of AI technology may weaken citizen participation and the degree of democracy in community governance. With the introduction of AI technologies, community governors can rely on automation and algorithms to process and drive different decisions and programs, and community citizens may face shrinking channels of participation. In other words, citizens gradually lose the power to monitor and participate in community governance, while governors occupy a higher position of power based on achieving efficiency gains and streamlining processes, which may lead to a decline in governance transparency and democracy. On the other hand, the application of AI technologies produces some flaws in social governance standards and further weakens the transmission and development of civic culture. While AI technologies can break some of the limitations in traditional social governance, such as access to more data and information, and more efficient data processing and analysis. These technologies also have the potential to replace human thinking processes with standardization and intelligence, thus weakening the flexibility and relevance of governance standards, making it more difficult to put people at the center of public decision-making, and affecting the development of civic culture.

7. AI enters grassroots social governance for citizens Cultural Issues

Civic culture is an important factor in shaping community governance networks and directly affects the quality and effectiveness of grassroots community governance. As an important cultural attribute in social governance, civic culture plays an important role in practice. Civic culture is the key to citizen participation in social affairs, and is an important condition for establishing and developing community governance organizations and mechanisms. Public spirit can bring a vision for building vibrant, mutually supportive and inclusive local communities. At the same time, it can counteract some of the negative aspects of living in an age of individualism^[3]. The entry of AI into grassroots social governance is bound to have an impact on civic culture, which in turn affects the effectiveness of grassroots social governance.

The intervention of AI technology may change the way and the extent of citizen participation. In traditional community governance, citizen participation usually requires attendance at meetings or on-site communication, which is a relatively tedious and time-consuming process. The intervention of AI technology has made it possible for citizens to use not only online platforms for community governance, but also more convenient communication methods, such as chatbots and interactive graphic postings. This change not only improves the ease of citizen participation, but also helps to facilitate closer communication and connection between citizens and governors. Thus, it is clear that while AI technology is changing the way citizens participate, civic culture is also evolving and progressing.

Innovations in the application of AI technologies have also provided some new ideas and tools for community governance, which have also had a positive impact on the cultivation and development of civic culture. For example, technologies such as smart policing and smart bucketing can be used in community management to achieve supervision, further enhancing safeguards such as community services and public safety. These initiatives gather the wisdom of governance, and while effectively solving community conflicts and public problems, they also further increase citizens' trust and satisfaction with community governance, which also has a positive impact on the cultivation of civic culture.

However, the widespread use of AI technology does, to some extent, have some negative effects on civic culture. For example, AI technologies can deprive governance subjects and citizens of opportunities to communicate and interact with each other. The Internet makes it easy to interact with people, but reinforces the real-world alienation between people [4]. In many AI-involved community governance, many matters are left to automation or computer programs, which can lead to a rapid reduction in opportunities for real interaction between citizens and governors in the process of community governance. People may not have direct access to the decision makers behind the decisions or the way they are handled, nor are they able to provide timely suggestions or feedback. This can reduce citizens' trust and understanding of community governance, further weakening the cultivation and development of a civic culture.

AI technologies may also create "technology dependency". As the application of AI technology gradually expands, communities become more dependent on it. This "technology dependence" may lead to a shift in the focus of community governance from human decision-making to technology decision-making, leading to a weakening of citizens' sense of responsibility, consciousness, and sense of active participation, and reducing the importance of civic culture and the power of political impetus.

8. Conclusion

Currently, AI technology has become an integral part of social and technological development and has been widely used in various fields, especially in grassroots social governance. Although there are many limitations in the application of AI technology in this field, this does not hinder its development and application. It should be studied and applied as a new means of governance, and its many possibilities and advantages should be explored.

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