Integration Of E-Government and Artificial Intelligence to Increase Public Participation in Local Governance

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ABSTRAK

Penyelenggaraan dan kebijakan pemerintah daerah seringkali menimbulkan kontroversi karena kurangnya partisipasi masyarakat. Adanya perkembangan teknologi dapat dimanfaatkan untuk menunjang penyelenggaraan pemerintah, terlebih saat ini di berbagai daerah telah mengembangkan e-government. Penelitian ini dilakukan untuk menganalisis perkembangan e-government dan integrasinya dengan artificial intelligence. Hal ini berbeda dengan penelitian pada umumnya yang hanya mengulas tentang e-government saja. Penelitian ini menggunakan metode yuridis normatif dengan pendekatan konsep dan perundang-undangan. Hasil penelitian ini menunjukkan bahwa terjadi stagnasi pengaturan dan pemanfaatan e-government yang cenderung hanya sebagai sarana informasi sehingga minim keterlibatan masyarakat dalam penyelenggaraan pemerintahan. E-government dapat dikembangkan melalui pengintegrasian artificial intelligence meningkatkan partisipasi masyarakat yaitu mengembangkan layanan aspirasi, sistem summary and analysis, serta layanan evaluasi kebijakan.

Kata Kunci: Partisipasi Masyarakat, E-government, Kecerdasan Buatan, Penyelenggaraan Pemerintahan.

ABSTRACT

Local governance and policies often cause controversy due to lack of public participation. The development of technology can be utilized to support local governance, especially now that various regions have developed e-government. This research was conducted to analyze the development of e-government and its integration with artificial intelligence. It is different from research in general that only reviews e-government. This research uses normative juridical method with concept and legislation approach. The results of this study indicate that there is stagnation in the regulation and utilization of e-government which tends to be only a means of information so that there is minimal public involvement in governance. E-government can be developed by

integrating artificial intelligence to increase public participation by developing aspiration services, summary and analysis systems, and policy valuation services.

Keywords: Artificial Intelligence, E-government, Governance, Public Participation

INTRODUCTION

The development of technology has been increasingly unstoppable after the entry of the Industrial Revolution 5.0 era with the emergence of digitalization and artificial intelligence technology that can replace the role of humans.(Riyanto, 2020) Several fields of human life including law and government have begun to use AI in their work systems. Some countries are starting to develop AI in the legal field such as the UK with the DoNotPay chat application capable of providing legal aid services, there are also systems capable of analyzing thousands of documents in a short time,(Anshori, 2022) and predicting court decisions.(Hakim, Praja, & Sung, 2023) Of course, the influence of technology is very large on human civilization today. Despite the pros and cons, humans can utilize the existence of AI to support their performance, so that humans control technology and not the other way around.

The government can utilize AI to support performance and governance. Especially for local governments that have the authority to run their local household affairs based on regional autonomy, it is very necessary to utilize AI. Supporting instruments are needed to create effective and efficient governance and be able to meet the needs of public services to the community. If often the policies formed are controversial and not in accordance with the circumstances and needs of the community. Policies that are formulated sometimes prioritize the interests of the authorities and short-term considerations, so that policy stagnation and public services have not run optimally.(Sururi, 2016)

The lack of absorption of community aspirations in the process of governance, especially the formulation of certain policies and public services, is one of the reasons. Policies that are formed eventually tend to be based on the analysis and perspectives of the local government alone, so they are not balanced. As a result, government policies are often not on target and not in accordance with the public service needs of the community.

Absorption of people's aspirations as a basis for supporting the formation of local government policies is needed so that policies do not seem to be only the will of the "authorities". AI can be developed to overcome these problems. So far, the concept of modernizing governance has begun with the existence of e-government through Presidential

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Instruction Number 3 of 2003 concerning National Policy and Strategy for E-government Development. The local governments are encouraged to utilize information technology to improve public services to be more effective and efficient in serving the community. E-government can be the initial capital for integrating AI to maximize governance, especially to absorb the aspirations of the community in shaping regional public policy.

This research is urgently conducted to find out the development of regulation and implementation of e-government in local governance. In addition, it also analyzes the integration of AI into e-government, especially to absorb the aspirations of the community. Existing research so far generally still focuses on analyzing the juridical basis(Kurnia, Rauta, & Siswanto, 2017) and the application of e-government in governance.(Heriyanto, 2022) Meanwhile, the field of AI, is generally related to its application in law enforcement(Hakim et al., 2023) and civil liability.(Simbolon, 2023) It seems that there are not many studies that integrate AI in e-government to support local governments in organizing local governments.

Innovative e-government development integrated with AI to support public participation will improve the quality of democracy. All policies and powers exercised by the government basically should not conflict with the will of the community. Philipus M. Hadjon revealed that the public has the right to be involved in the government policy-making process. Therefore, it is necessary to provide space for the community to participate in the local governance. (Agung Istri Ari Atu Dewi & Nila Winarni, 2019) With the involvement of the community through the absorption of aspirations, it is hoped that the public policy formed will be right on target and in accordance with the needs. Therefore, easy access for the community to channel their aspirations needs to be realized. Thus, this research will review the regulation and implementation of e-government, as well as the form of AI integration of e-government in local governance, especially to increase public participation.

RESEARCH METHOD

This research uses a normative juridical method with a conceptual and legislative approach related to the development of e-government and AI in local governance. The data used is secondary data with a literature study based on primary legal materials in the form of laws and regulations related to local government and e-government such as Law Number 23 of 2014 concerning Regional Government, Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE) as amended by Law Number 19 of 2016 and Law Number 1 of 2024,

Presidential Instruction Number 3 of 2003 concerning National Policy and Strategy for E-Government Development. In addition, there are also secondary legal materials in the form of book and journal literature related to the topic. The data obtained is then analyzed using qualitative methods. The results of the analysis and existing thoughts are then drawn conclusions that can be scientifically accounted for to answer the problem.

RESULTS & DISCUSSION

The Development of E-government Arrangements and Implementation for Local Governance

The dynamics of changing times continue to occur in Indonesia. These changes also require modernization of governance through digitalization in all fields aimed at realizing the interests of the community. The government is required to be more open and transparent in carrying out governance and public services, including responding to community aspirations responsively and effectively. This encourages closeness between the government and its people. The government needs to strive for good and smooth communication with any party, especially the community, to create a closeness that can support government openness.

On the other hand, the rapid development of technology with its various functions opens opportunities to access and provide information quickly and accurately. This development must also be responded to by the government in supporting its work activities. Failure or unwillingness of the government to adjust or adapt to the development of the era will bring setbacks to the government itself. Therefore, the government began to implement a government digitization system through the development of e-government.

E-government is basically an information system that combines various aspects such as social, political, legal and government with technology managed by the government.(Silalahi, Napitupulu, & Patria, 2015) The World Bank Group defines e-government as follows.

E-government refers to the use by government agencies of information, technologies (such as wide area networks, internet, and mobile computing) that can transform relations with citizens, business, and ither arms of government. (Heriyanto, 2022)

For the government, e-government can encourage the achievement of good governance within the framework of openness, transparency, accountability, and democracy. E-government can increase public participation to support government work so that the implementation of e-government can also strengthen the democratic system. In general, e-government utilizes digital technology to transform government activities aimed at increasing effectiveness and efficiency in carrying out public service functions. (Heriyanto, 2022)

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The provisions underlying the existence of e-government are based on Article 28F of the 1945 Constitution of the Republic of Indonesia, which emphasizes that everyone has the right to communicate and obtain information and has the right to manage information using all available channels. The article initiates the public's right to have communication channels and openness of all information that can be accessed effectively and efficiently. Furthermore, the government issued Presidential Instruction Number 3 of 2003 on National Policy and Strategy for E-government Development. The Presidential Instruction mandated state and local institutions to determine steps in developing e-government as stated in the instruction. The instruction initiated the implementation and development of e-government in government throughout Indonesia. Then there is also Law Number 1 of 2008 concerning Electronic Information and Transactions (ITE) as amended by Law Number 19 of 2016 and Law number 1 of 2024. Although it does not specifically regulate e-government, the law also regulates the use of information and electronic technology.

Furthermore, each local government is authorized to manage its e-government. This is shown in Article 12 paragraph (2) of Law Number 23 of 2014 concerning Local Government which explains that there is one element of mandatory government that is not related to basic services, namely communication and informatics. Each government has the authority to manage the affairs of communication facilities and public information through e-government as also explained in Appendix P of the Local Government Law regarding the division of affairs in the field of communication and informatics.

In recent years, the government has made another effort to develop government digitalization through Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government System (EBGS) and Presidential Regulation Number 132 of 2022 concerning the National Electronic-Based Government System Architecture. EBGS is the implementation of an integrated and comprehensive information and communication technology-based government to achieve good governance and services to the public or EBGS users.

Looking at several existing provisions, it appears that there is no specific and integrated regulation of e-government at the level of a law, so the coercive power of its implementation is weaker than if it were regulated by law. Nevertheless, the regulation can still be implemented in each local government with strong encouragement.

Until now, e-government has been widely implemented by several local governments in different ways, depending on the initiative and innovation of each region. Conventional local

government implementation causes a lack of access to openness such as difficulty in obtaining information because people must ask directly to the local government office, some administrative services become long because they are done manually. It is different when egovernment has begun to be implemented even though gradually, people are easier to access information and take care of some administrative matters independently or online. The more modern and complete the services provided to the public through e-government, the more it tends to ensure government transparency. This is because e-government management is handed over to the regions as one of the local government affairs in the field of communication and information.

Some regions seem to develop e-government in various forms, ranging from websites to smart city applications. The existence of a website is most common because it tends to be the easiest to form and develop and is the minimum standard in realizing e-government. Websites that are developed mostly provide information or publish activities and work results of the local government. (Dwiyanto, 2022) In fact, the concept of e-government is not just displaying information, but a comprehensive transformation of the relationship between the government and its stakeholders and communities. (Nugraha, 2018)

In addition to websites, some regions are also developing smart city applications. Smart city is a city management system that uses large-scale digital data and information technology with the aim of integrating all elements of city infrastructure and services in an integrated manner in one application. It is expected that the community can access information and utilize administrative services effectively and efficiently to support their needs and improve the standard of community welfare services.(Hashim, 2024) However, in its implementation, there are still many obstacles such as slow services, incompetent government human resources, and not many people knowing and using it, so the e-government does not run optimally.(Irma, Ginting, Agusmidah, & Leviza, 2023)(Ramadhan, Arifianti, & Riswanda, 2019)

Despite this, there appears to be stagnation in the development and utilization of e-government, including its legal aspects in each region. E-government that is formed tends to be only an informative tool. Whereas the concept of e-government includes wanting to accommodate public participation in governance to realize good governance and democracy.

Integration of Artificial Intelligence in E-government to Absorb Community Aspirations

Looking at the discussion above, it appears that e-government has stagnated because the system that was built is only one-way as a local government information system. E-government

has a broad concept that includes two-way relations, including:(Irawan, 2017)(Hardjaloka, 2014)

- a. *Government to citizens* (G2C), which is government services aimed at the public, including interaction and information exchange between the two.
- b. *Government to business* (G2B), which are government services to facilitate interaction with business entities.
- c. Government to government (G2G), which is an interaction service between government agencies to facilitate cooperation.
- d. *Government to employees* (G2E), which is a service to improve the performance and welfare of employees in an institution.

The concept of the relationship indicates the interaction between the two parties, so that the e-government that is built does not only contain information from one party.

One important service is government to citizens in local governance. The concept of digitization must be purposeful and people-centered to ensure that electronic services truly benefit and serve the interests of the community.(Latupeirissa et al., 2024) The public is given the opportunity to be involved in governance, especially when determining the direction and substance of new policies, so that governance and policies made will not harm the community.(Yasir & Ridlwan, 2012) The state guarantees and encourages community participation in the form of aspirations, ideas, thoughts and interests in the local governance as confirmed in Article 354 of Law Number 23 of 2014 concerning Local Government. The community can be involved in various local government affairs including policy formulation, the planning process to evaluate regional development, regional asset management, and the delivery of public services.

Forms of community participation can take the form of deliberation, partnership, aspiration delivery, supervision, public consultation, or other forms of involvement. Generally, such participation is still carried out conventionally or directly so that special activities such as focus group discussions must be held. Of course, this requires a lot of money and a long time, and sometimes the implementation is not effective.

In this modern era, online participation through e-government involving artificial intelligence can increase effectiveness and efficiency without reducing the essence of public participation itself. AI encourages computers to think like humans by utilizing available data and facts and desired results.(Hakim et al., 2023) The working system of AI is to sort and

combine large amounts of data with identical characters. The data is processed, recorded, and stored as AI knowledge which is then used as a basis for making conclusions or decisions.(Surden, 2019)(Simbolon, 2023)

The AI system is very relevant to help develop the e-government that has been established so far specifically to increase community participation. Therefore, it is necessary to integrate the two. Forms of integration that can be done include *first*, the development of aspiration services. This aspiration service is integrated with the AI system as a means of collecting data sent from the community. It is important to differentiate this service from the complaint service that has generally been carried out in several regions. Complaint services will usually be directly received by the government, in contrast to AI-integrated aspiration services where aspirations will be collected first as AI "knowledge" data.

The second is the development of summary and analysis services. After the community aspiration data is stored in the e-government database, the AI system can produce an initial conclusion on the collection of community aspirations. The government will find it easier to see the general picture of aspirations conveyed through e-government aspiration services as study material to formulate regional policies.

Third, is the development of policy evaluation services. This service needs to be provided in e-government as a means of community participation to evaluate applicable policies or local governance in serving the community. This service can also be integrated with AI to make it easier for local governments to summarize and analyze the results of evaluations provided by the community. Thus, it is hoped that local government will respond more quickly and improve policies that do not follow the wishes of the community.

Although summary and analysis services and policy evaluation involve AI, local governments do not necessarily trust the conclusions of AI. At times, the government still needs to review the sampling of community aspirations submitted to ensure and review in detail what the community wants. Based on this, AI plays a very important role in supporting the egovernment work system that has been built. Integration of AI into e-government in addition to creating effectiveness. Efficiency and making it easier for the community and the government itself will also encourage community participation in the implementation and formulation of policies by local governments.

CONCLUSION

Based on the results of the discussion above, there is stagnation in the regulation and utilization of e-government in various regions in Indonesia. Existing e-government tends to be a one-way information tool that has not been able to support public participation in governance. As a result, the enforcement of e-government has been weak and public participation remains low because it has not yet provided convenience. However, with the development of artificial intelligence today, e-government can be optimized by integrating artificial intelligence to ensure public participation in governance. Forms of integration include developing aspiration services, summary and analysis systems, and policy evaluation services. Therefore, it is necessary to strengthen regulations and integrate them with artificial intelligence in developing e-government. Regulatory strengthening is carried out by establishing regulations at the level of laws that specifically regulate e-government or electronic-based local government as a basis for local governments. In addition, it is necessary to increase the commitment of local governments to develop digital-based public services and conduct periodic evaluations

REFERENCES

- Agung Istri Ari Atu Dewi, A., & Nila Winarni, L. (2019). Penjabaran Prinsip Demokrasi Dalam Pembentukan Kebijakan Daerah. *Supremasi Hukum: Jurnal Penelitian Hukum*, 28(1), 83–107. https://doi.org/10.33369/JSH.28.1.83-107
- Anshori. (2022). Gagasan AI Dalam Penerapan Hukum di Era 4.0 Perspektif Penyelesaian Perkara Model Restorative Justice dan Hukum Progresif. *Legal Studies Journal*, 2(2), 1–13. Retrieved from https://ejournal.unuja.ac.id/index.php/lsj/article/view/4190
- Dwiyanto, D. (2022). Dasar Hukum Bagi E-Government Di Indonesia: Studi Pemetaan Hukum Pada Pemerintah Daerah. *Court Review: Jurnal Penelitian Hukum*, 2(5), 1–11. Retrieved from https://aksiologi.org/index.php/courtreview/article/view/520
- Hakim, H. A., Praja, C. B. E. P., & Sung, M.-H. (2023). AI in Law: Urgency of the Implementation of Artificial Intelligence on Law Enforcement in Indonesia. *Jurnal Hukum Novelty*, 14(1), 122–134. Retrieved from http://journal.uad.ac.id/index.php/Novelty/article/view/25943/pdf_107
- Hardjaloka, L. (2014). Studi Penerapan E-Government Di Indonesia Dan Negara Lainnya Sebagai Solusi Pemberantasan Korupsi Di Sektor Publik. *Jurnal RechtsVinding: Media Pembinaan Hukum Nasional*, *3*(3), 435–452. Retrieved from http://dx.doi.org/10.33331/rechtsvinding.v3i3.35
- Hashim, H. (2024). E-government impact on developing smart cities initiative in Saudi Arabia: Opportunities & challenges. *Alexandria Engineering Journal*, *96*, 124–131. https://doi.org/10.1016/J.AEJ.2024.04.008

- Heriyanto. (2022). Urgensi Penerapan E-Government Dalam Pelayanan Publik. *Musamus Journal Of Public Administration*, 4(2), 66–75. Retrieved from https://ejournal.unmus.ac.id/index.php/fisip/article/view/4128/2283
- Irawan, B. (2017). Studi Analisis Konsep E-Government: Sebuah Paradigma Baru Dalam Pelayanan Publik. *Jurnal Paradigma*, 2(1), 174–201. Retrieved from https://e-journals.unmul.ac.id/index.php/JParadigma/article/view/351
- Irma, N., Ginting, B., Agusmidah, A., & Leviza, J. (2023). Penerapan E-Government dalam Penyelenggaraan Pemerintahan di Kota Binjai. *Locus Journal of Academic Literature Review*, 2(6), 454–466. https://doi.org/10.56128/LJOALR.V2I6.168
- Kurnia, T. S., Rauta, U., & Siswanto, A. (2017). E-Government Dalam Penyelenggaraan Pemerintahan Daerah Di Indonesia. *Masalah-Masalah Hukum*, 46(2), 170–181. Retrieved from https://ejournal.undip.ac.id/index.php/mmh/article/view/14608
- Latupeirissa, J. J. P., Dewi, N. L. Y., Prayana, I. K. R., Srikandi, M. B., Ramadiansyah, S. A., & Pramana, I. B. G. A. Y. (2024). Transforming Public Service Delivery: A Comprehensive Review of Digitization Initiatives. *Sustainability (Switzerland)*, *16*(7). https://doi.org/10.3390/su16072818
- Nugraha, J. T. (2018). E-Government Dan Pelayanan Publik (Studi Tentang Elemen Sukses Pengembangan E-Government Di Pemerintah Kabupaten Sleman). *Jurnal Komunikasi Dan Kajian Media*, 2(1), 32–42.
- Ramadhan, R., Arifianti, R., & Riswanda. (2019). Implementasi E-Government Di Kota Tangerang Menjadi Smart City (Studi Kasus Aplikasi Tangerang Live). *Responsive: Jurnal Pemikiran Dan Penelitian Administrasi, Sosial, Humaniora Dan Kebijakan Publik*, 2(4), 140–156. https://doi.org/10.24198/RESPONSIVE.V2I3.26083
- Riyanto, B. (2020). Pembangunan Hukum Nasional di Era 4.0. *Jurnal RechtsVinding Media Pembinaan Hukum Nasional*, 9(2), 161–181. https://doi.org/dx.doi.org/10.33331/rechtsvinding.v9i2.455
- Silalahi, M., Napitupulu, D., & Patria, G. (2015). Kajian Konsep Dan Kondisi E-Government Di Indonesia. *JUPITER: Jurnal Penerapan Ilmu-Ilmu Komputer*, *1*(1), 10–16. Retrieved from https://ejournal.borobudur.ac.id/index.php/08/article/view/31
- Simbolon, Y. (2023). Pertanggungjawaban Perdata Terhadap Artificial Intelligence yang Menimbulkan Kerugian Menurut Hukum di Indonesia. *Veritas et Justitia*, 9(1), 246–273. https://doi.org/10.25123/vej.v9i1.6037
- Surden, H. (2019). Artificial Intelligence and Law: An Overview. *Georgia State University Law Review*, 35(4), 1305–1337. Retrieved from https://readingroom.law.gsu.edu/gsulr/vol35/iss4/8
- Sururi, A. (2016). Inovasi Kebijakan Publik (Tinjauan Konseptual dan Empiris). *Sawala: Jurnal Administrasi Negara*, 4(3). https://doi.org/10.30656/SAWALA.V4I3.241
- Yasir, A., & Ridlwan, Z. (2012). Perumusan Kebijakan dan Peraturan Daerah Dengan Mekanisme Konsultasi Publik. *Fiat Justisia: Jurnal Ilmu Hukum*, 6(2). https://doi.org/10.25041/FIATJUSTISIA.V6NO2.327