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BRIEFS

Urban Governance and Responsible Artificial Intelligence Interaction for Local Democracy

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Every time a new page opens in the field of technology, technology fans and optimists create fantasies that a wonderful era has begun in which life will never be the same again. The technophobes and pessimists also create fantasies that life will never be the same again, but on the contrary that technology will bring about the end of humanity. While both fantasies inherently are frustrated¹, in conceptual debates social determinism and technological determinism, that are the ideas of society changes technology and technology changes society, clash. The alternative to this conflict is interactionism. Interactionism is the idea that if there is to be change, it will be through the interaction of society and technology. In discussions on technology and democracy within this alternative framework, one can ask whether more democratic processes can emerge from the interaction of both fields. In this policy brief, we discuss how the interaction of responsible artificial intelligence (RAI) and urban governance might democratize cities, with a closer look at Türkiye.



As public institutions, as well as the private sector, began to use this technology in their decision-making and implementation processes, democratic concerns grew. The expectation of responsibility in the use of AI for the benefit of society and for the benefit of people has increased.

Artificial intelligence (AI), whose foundations were laid in 1950 when British mathematician Alan Turing asked if machines could think and named by John McCarthy at the Dartmouth Conference in 1956, has been developing with its fluctuating popularity ever since. While it is used in many sectors in the making, the masses started to incorporate ChatGPT directly into their daily lives in 2022 when Open AI launched the AI chatbot. The fantasies above, both good and bad, have since spread just as rapidly as the use of AI. As public institutions, as well as the private sector, began to use this technology in their decision-making and implementation processes, democratic concerns grew. In the case of robots that have human skin-like textures and use facial expressions similar to human emotions (Turing had already defined intelligence as external performance, not internal, and based his argument on the imitation of humans by machines²), the need for a more sensitive ethical and legal framework than in the previous technological advances arose. The expectation of responsibility in the use of AI for the benefit of society and for the benefit of people has increased.

Responsible Artificial Intelligence

In this context, RAI can be briefly defined as the ethical, democratic and legal framework that is expected to be followed in the design, development and use of AI, with respect to human rights, society and the environment. Prior to ChatGPT, in 2016, leading AI technology companies Amazon, Google, IBM, then named Facebook and Microsoft came together to form the Partnership on AI. The network which later included media outlets, non-profit organizations and academia, identifies 6 prioritized areas on its website to examine the opportunities and threats AI presents for society and to create recommendations and resources for RAI³:

Safety-Critical AI - ensuring that AI decisions in safety-critical areas such as healthcare, transportation, etc. are safe, reliable and ethical for the people who will be affected,

Fair, Transparent, Accountable AI - ensuring that the data and decisions made by AI from that data in areas

such as health, education, security, sustainability, etc. are fair, explainable and accountable so that they are not prejudiced, biased or blind,

AI, Labor and the Economy - expanding the opportunities that come with the use of AI to create new jobs and ways of working, minimizing disruption while opening up space for competition and innovation,

Collaboration between People and AI Systems - facilitating the collaboration of people and AI systems to meet the needs and capabilities of people to make faster, more accurate decisions, for example in areas such as medical diagnostics and traffic,

Social and Societal Influences of AI - AI can affect people and society in areas such as privacy, democracy, justice, human rights, facilitating their decisions in these areas, while at the same time deliberately manipulating them. Reflection and open dialog about the possible visible and invisible impacts of AI on people and society,

AI and Social Good - AI can increase social good in areas such as education, housing, public health, sustainability. Developing ideas, some of which may be crazier and some of which may be more plausible, through multi-stakeholder collaborations.

As this network led by private sector begins its work, individual technology companies are also starting to publish their own RAI declarations. Google, for example, published its AI principles in 2018 as follows; *be socially beneficial, avoid creating or reinforcing unfair bias, be built and tested for safety, be accountable to people, incorporate privacy design principles, uphold high standards of scientific excellence, and be made available for uses that accord with these principles*⁴. Over time, as AI and its areas of use evolve, these principles are updated. For example, Intel's RAI list⁵ opens with human rights, emphasizes the human dimension with concepts such as inclusion and equity, and emphasizes the environment. Nokia Bell Lab's⁶ definition of RAI includes the principle of using AI to strengthen society and democracy. Companies are also publishing transparency reports. Microsoft, for example, in its latest 2024 RAI transparency report, published information

on the tools it offers to its customers for their RAI development, the multi-stakeholder networks on RAI participated in and learned from, the R&D and academic research on RAI supported around the world, the expanded RAI community, and internal RAI capacity building activities⁷.

The International Organization for Standardization (ISO) defines RAI with these principles: *datasets used for training the AI system must be given careful consideration to avoid discrimination; these systems should be designed in a way that allows users to understand how the algorithms work; AI systems should avoid harming individuals, society or the environment; developers, organizations and policymakers must ensure AI is developed and used responsibly; AI must protect people's personal data, which involves developing mechanisms for individuals to control how their data is collected and used; and inclusivity should be ensured by including diverse perspectives in the process*⁸. ISO also states that while developing RAI, *companies should foster collaboration across all disciplines such as policy, technology, ethics and social advocacy to ensure multifaceted perspectives, prioritize ongoing education on AI at all levels to maintain*

awareness and adaptability, implement AI ethics throughout the technology design's all stages, establish AI ethics monitoring mechanisms, and ensure transparency in AI processes to gain the trust of stakeholders and society as well as accountability. ISO also underlines that organizations that have adopted the RAI should share their principles visibly for a wide audience.

International organizations to which governments are affiliated to are also acting for the responsible use of AI. The United Nations (UN), for example, established an AI Working Group in 2020. In 2022, the UN Educational, Scientific and Cultural Organization (UNESCO) and the Office of Information and Communication Technology (OICT) jointly developed 10 principles of RAI that are adopted across the UN system. These are: *do no harm; defined purpose, necessity and proportionality; safety and security; fairness and non-discrimination; sustainability; right to privacy, data protection and data governance; human autonomy and oversight; transparency and explainability; responsibility and accountability; inclusion and participation*⁹. The AI Advisory Group established by the UN Secretary-General in 2023 drafted the interim

report, expected to be finalized at the Future Summit in September 2024, that includes the principles of *inclusivity; public interest; data governance; universal, networked and multistakeholder; and international law*. Moreover, the Organization for Economic Cooperation and Development (OECD) established the Global Partnership on AI (GPAI)¹⁰. The partnership, which currently includes 29 OECD member countries (and others interested in joining the network), has 4 working groups focusing on RAI, namely data governance, the future of work and, innovation, and commercialization. The European Union (EU) is another policy actor actively working on the responsible use of AI within the framework of the Declaration of Cooperation signed by member states and Norway in 2018. The AI Act¹¹ which became effective as of August 1, 2024, and is internationally recognized as the first AI law, classifies and regulates AI according to its risks. For example, *unacceptable risks* such as social scoring systems or manipulative AI are now banned in the EU.

Among the governments, China and Canada have been pioneers in RAI field, starting their efforts in 2017¹². The 12 points in the RAI declaration published on the Canadian e-government

website¹³ correspond to the above criteria. The United States of America launched its national AI strategy in 2023, the same year its political declaration on responsible military use of AI and autonomy in the military as well as civilian use is published¹⁴. In the Global RAI Index, which assesses 138 countries on the criteria of government actions, non-state actors' initiatives, human rights and AI, national RAI capacity and RAI governance, the most advanced country is the Netherlands¹⁵. The Index draws attention to the fact that despite the rapid expansion of the use of AI all over the world, the majority of countries do not implement RAI, and that the population of countries where measures to protect and promote human rights in the context of AI are not taken is close to 6 billion.

Urban governance and RAI

We see that AI is rather approached with caution, where its risks are emphasized rather than its advantages, and that RAI is basically a set of principles to manage this technology in a way that no one is harmed. Similar to the principles of urban governance. In urban governance, too, the concepts of cooperation, inclusiveness, participation, accountability and transparency come to the fore for data driven decision-making

➔ **Can RAI improve local democracy by facilitating inclusive data collection, analysis and sharing plans, open data policies, diversification of the data ecosystem, and strengthening collaborations with different stakeholders of the city?**

processes and practices to be democratic. If a municipality makes these principles a priority for governing the city, these priorities also apply to the use of technology in the governance of the city. As in almost every area of the global agenda, cities are developing their own policies and practices of RAI. Cities that stand out with their data driven urban management practices, such as Boston¹⁶ and Helsinki¹⁷, for example, publish on their websites the principles of RAI that they declare they will comply with while managing both the city and the municipality as a public institution. Both cities include the principles stated in the framework above in their RAI lists. Helsinki, for example, emphasizes focus on people with human-centredness and human oversight over AI operation. Can municipalities democratize their in-house governance with RAI?

While municipalities' own governance principles are reflected in their RAIs, we also see that RAI processes strengthen cooperation. According

to Eurocities, the European city organization, based on the exemplary model developed by Helsinki and Amsterdam, a leading city in the use of AI in urban management, European cities are developing a model for data transparency that can be shared and copied with the principle of interoperability. The model, developed in cooperation with Barcelona, Bologna, Brussels, Eindhoven, Mannheim, Rotterdam and Sofia, aims to prevent the misuse of data¹⁸. Can collaborations developed with technology for the responsible information sharing and learning from each other democratize urban governance?

Can RAI, which includes the democratization of data governance, improve local democracy by facilitating inclusive data collection, analysis and sharing plans, open data policies, diversification of the data ecosystem, and strengthening collaborations with different stakeholders of the city?



What is important here is that municipalities consider technology not only as a service facilitator but also with its democratizing dimension.

In its definition, ISO emphasizes that institutions should make their RAI principles visible in a way that is easily accessible to the masses. If a municipality transparently shares the principles of how it will manage AI in service, aid, urban planning decisions and implementation, and the data, technology and framework required for AI to work, can it also provide information about other decision-making processes of that municipality? Can access to this information democratize urban governance?

These questions can be diversified. The answers, however, always start with the same sentence: if the municipality wants to. Once the interaction between urban governance and technology begins, it starts the process of evolution for both. What is important here is that municipalities consider technology not only as a service facilitator but also with its democratizing dimension. Türkiye, for example, has missed the democratic dimension in previous digital transformation processes. In the interaction between technology and the public administration, the public administration

focused more on infrastructure investment and digitalization of services. Therefore, while Türkiye has a very high score on UN e-government reports¹⁹ with its success in digital infrastructure and services, it is listed among the *not free* countries in Freedom House's Internet Freedom index²⁰.

Local governments and RAI in Türkiye

Türkiye is one of the countries that started working on the AI framework relatively early²¹. Some companies in the banking and telecommunications sectors (such as Türkiye İş Bankası, Turkcell) publish their RAI frameworks. As one of the 29 member countries of the aforementioned OECD Global AI Partnership, Türkiye's National Artificial Intelligence Strategy²² covering the years 2021-25 also includes the RAI principles of the above-mentioned international organizations. These principles are listed as *proportionality, safety and security, fairness, privacy, transparency and explainability, responsibility and accountability, data sovereignty and multi-stakeholder governance*.

The strategy document states that a Public AI Ecosystem will be established under the coordination of the Department of Big Data and AI Applications of the Presidential Digital Transformation Office and AI and analytical projects of local governments will be supported. The democratic dimension, however, seems to be absent in the 6 main priorities of the strategy. We observe that 1 measure and 1 objective in the document directly concern municipalities through smart cities, while 3 measures and 2 objectives also cover local government public institutions and organizations beside central public institutions. Accordingly, the measures include *dissemination of open government data studies, creating an inventory for field experts with AI and for advanced analytics projects and reporting regularly for the parties to exchange experience with each other, implementing thematic programs to raise awareness of the potential impacts and competence needs of AI in central, dissemination of the use of AI applications and related technologies in smart city services*. In the objectives, it is written that *employment in the field of AI in central and local*

government institutions and organizations will be increased to 1,000 people, at least 50,000 employees in central and local governments will be provided with awareness training, and at least 250 municipalities will be ensured to make use of AI technologies within the scope of smart city applications. We see that in the articles of the strategy covering local governments, the priorities are increasing the human resource capacity of municipalities in the field of AI and expanding its use in services. There is, however, no strategy for local governments to determine and share the principles to be followed when using this technology, there is no reference to RAI. When we look at the unions of municipalities, although they are increasingly including AI in their training programs (such as The Union of Municipalities of Türkiye) or periodicals (such as the Marmara Municipalities Union), we see that this is still at the level of raising awareness. The Union of Municipalities of Türkiye's current strategic plan, for example, does not include AI.

As for the AI policies of municipalities, the priority is likewise on awareness raising. Some of them add the words innovation and artificial

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intelligence to the names of their training centers and organize capacity building activities especially for young people (e.g. Başakşehir, Ümraniye, Nilüfer, Kütahya, Gaziantep Metropolitan). Some municipalities are opening smart city or artificial intelligence directorates in their own institution or in their affiliates (e.g. İstanbul Metropolitan, İzmir Metropolitan affiliate İzmir Innovation and Technology Inc.). We also see that municipalities increasingly use AI in municipal services. More and more municipalities are using AI for transportation services (e.g. Konya Metropolitan), traffic management (e.g. Ankara Metropolitan), automation in disaster management and digital twin applications (e.g. İstanbul, Balıkesir Metropolitan), or communication and help desk line management (e.g. Başiskele, Bağcılar). However, we do not see the RAI principles on the websites of municipalities using AI. In the 2023 edition of the national Smart Cities Index, the top five ranked municipalities, namely Konya, İstanbul, Bursa, Kütahya and Erzurum, also fail in publishing RAI principles on their websites. When we ask employees of a municipality that use AI extensively, we learn that the organization's AI policy is more about improving service quality and time management of employees, but that it

has no role in, for example, internal governance. We may say that municipalities in Türkiye do not yet take AI as a democratizing factor and do not yet open space for the democratic dimension of technology in planning their resources. In other words, the interaction of urban governance and RAI in the focus of this discussion seems not yet begun.

How can the interaction of urban governance and Responsible Artificial Intelligence be democratizing?

For municipalities that want to run more democratic cities, on the other hand, RAI might be a democratizing dimension of digital transformation and an opportunity to incorporate democratic governance principles into urban governance. Some recommendations for that might include;

AI policy should not be limited to improving service quality;

municipalities can do more with AI. If they include democratic dimension in their digital transformation policy, RAI might facilitate the democratization of municipalities' internal and external governance.

The democratic dimension of AI should be opened to a multidisciplinary discussion; AI development and implementation processes, which involve many disciplines in themselves, can bring together people and institutions from many different disciplines with different knowledge and experiences around the same table. Such a space for discussion alone is democratizing. Municipalities can use this opportunity to discuss what AI has to offer to the city for local democracy.

Bottom-up decision making processes should run; technical AI experts of the municipality should be included in the process when municipal AI policies and practices are decided. In processes limited to high level decision makers without AI expertise, the knowledge of what can and cannot be done with AI remains incomplete. However, AI experts have the technical knowledge required for more accurate decisions. This can facilitate both better-informed decision making and increased participation within the organization.

Technology itself should also be included in AI policy decisions; utilizing technology itself in technology policy decisions can also facilitate more accurate and creative decisions. As in the example of city collaborations above, municipalities can access more advanced AI uses at less cost through models to be developed with the principle of interoperability facilitated by technology. Municipality Unions may facilitate practices that will spread the principle of interoperability.

Municipalities should define and publish RAI principles; especially municipalities that invest in data-driven decision making processes, open data and the use of AI can prepare and publish their RAIs in a multi-stakeholder and participatory way as soon as possible, in a way that also interacts with the principles of urban governance.

NOTES

1. For a comprehensive discussion on technology- social change fantasies see Akdoğan, 2014, Dijital Politik Fanteziler, İletişim.
2. For the AI journey see Kissinger, Schmidt, Huttenlocher, 2021, The Age of AI, John Murray Press.
3. <https://partnershiponai.org> is where you can find more detailed information for each item, here the statements on the website are briefly quoted.
4. [Google AI Principles – Google AI](#)
5. <https://www.intel.com/content/dam/www/central-libraries/us/en/documents/2023-12/responsible-ai-principles.pdf>
6. <https://www.bell-labs.com/research-innovation/ai-software-systems/responsible-ai/#What-is-Responsible-AI->
7. <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RW115BO>
8. <https://www.iso.org/artificial-intelligence/responsible-ai-ethics>
9. <https://unsceb.org/principles-ethical-use-artificial-intelligence-united-nations-system>
10. <https://gpai.ai/>
11. <https://artificialintelligenceact.eu/the-act/>
12. OECD.AI <https://oecd.ai/en/dashboards/overview>
13. <https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai/principles.html>
14. <https://www.state.gov/political-declaration-on-responsible-military-use-of-artificial-intelligence-and-autonomy/>
15. <https://www.ictworks.org/global-index-on-responsible-ai/> Türkiye is not on the list.
16. <https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf>
17. <https://www.hel.fi/en/news/helsinki-has-determined-ethical-principles-for-the-responsible-use-of-data-and-artificial>
18. <https://eurocities.eu/latest/nine-cities-set-standards-for-the-transparent-use-of-artificial-intelligence/>
19. <https://desapublications.un.org/sites/default/files/publications/2022-09/Web%20version%20E-Government%202022.pdf>
20. <https://freedomhouse.org/country/turkey/freedom-world/2024>
21. For AI ecosystem development see Turkish Artificial Intelligence Initiative, <https://turkiye.ai/homepage/>
22. <https://cbddo.gov.tr/en/nais>

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