

Using Generative AI for Digital Planning

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As the digital world intersects with urban challenges such as sustainable development and democratic information access, cutting-edge tools such as artificial intelligence and machine learning are important to address complex issues. This paper introduces a novel AI chatbot named OpenCityAI, which has been comprehensively trained on urban data. OpenCityAI has been validated as being significantly more effective than existing AI solutions in supplying city-related data. Furthermore, it transforms the way citizens access urban information. The chatbot's conversational interface simplifies the task of retrieving and analyzing urban data, offering a user-friendly alternative to sifting through complex and often confusing web pages. Its linguistic flexibility, which supports over 30 different languages, allows an equitable engagement with a broad range of stakeholders and removes barriers due to language restrictions.

OpenCityAI has the potential to alter city power dynamics to a more decentralized, transparent, and participatory process driven by real-time data and inclusive citizen engagement. By providing instantaneous access to the latest city-specific data, the platform equips stakeholders with the necessary tools to partake in informed urban discussions and decision-making. Importantly, OpenCityAI is a live-updating AI that is trained on the most recent city data from over 200+ U.S. cities, guaranteeing that users are given the most accurate and current urban information accessible. It conducts automatic checking against city databases to ensure it remains up to date, performing iterative training on any new or updated information. For citizens, OpenCityAI's natural language ability democratizes urban information, like complex census data, permit numbers, laws, and the technical terms used in them to people who were previously cut off from the technical facets of urban planning. For city planners, OpenCityAI presents a newfound ability to access and assess statistics from previous years. Instead of a tedious analysis to determine the efficacy of a new proposal, city officials will be able to use OpenCityAI to propose the change and see how similar changes in the past have affected the city from a planning, census, and zoning perspective. However, OpenCityAI's introduction to urban planning isn't without concerns, with the risk of sidelining human expertise, misinterpreting data without the contextual insights of seasoned urban planners, and potential biases in AI training demanding careful consideration. In our deployment and evaluation of OpenCityAI, we seek to enhance conventional urban planning outcomes while minimizing the risks associated with our system.

In this paper, we detail our unique methods for developing and training OpenCityAI, and its transformative potential for urban planning procedures. We critically analyze the potential difficulties and dangers connected with its widespread implementation, and further study its potential function in enhancing citizen engagement and possibly readjusting power dynamics in planning procedures.