THE CITIES OF THE FUTURE WILL NO LONGER BE COMPLETED SOLELY BY HUMAN EFFORTS. Artificial intelligence and robots will replace humans in repetitive labor. When designing new structures, AI can propose creative architectural designs according to given conditions, and during construction, robots can take over repetitive and physical tasks such as moving bricks or applying cement. Let us call these AI and robotic systems developed to support urban architecture and construction as "Urban Space Robots."

As Urban Space Robots are efficiently utilized in the future, the role and responsibility of urban planners, who are the decision-makers using these systems, will become more significant. In the past, it took a considerable amount of time from design to construction, but thanks to advancements in Urban Space Robots, a time has come when urban planning in simulations is quickly realized in reality. However, if decision-makers abuse Urban Space Robots for personal power and gain, the consequences would be devastating. Human rights will be ignored, the environment destroyed, dilapidated abandoned buildings would proliferate, crime and fire incidents would surge, and poor financial management might make it difficult to provide even basic welfare. Additionally, just as social media penetrated deeply into people's minds, controlling and deteriorating mental well-being, Urban Space Robots will pose a dangerous risk by penetrating the physical world of humans, even controlling bodily movement.

Currently, due to urbanization, we are facing various problems. With urban populations highly concentrated, numerous issues such as skyrocketing real estate prices, declining value of labor income, the spread of speculative get-rich-quick attitudes, declining marriage rates and low birth rates, rising individualism, and increasing solitary deaths have arisen. These issues may be less a matter of individual responsibility and more a form of "cost" our society is paying for advancing cities in pursuit of short-term economic profit without sufficient discussion. Furthermore, historically, even individuals who loved their neighbors and were dedicated to the nation for a better city have been attacked or disparaged due to jealousy and conflicts of interest, and sometimes their contributions were undervalued or distorted historically. As a result, even those with both power and goodwill have become hesitant to take on leadership roles.

In the future, Urban Space Robots will connect more deeply with citizens' communications. Citizens will actively express the discomfort, anxiety, and dissatisfaction they feel in their daily lives, and AI will aggregate this information through big data collection devices, reflecting it in urban development. This process will provide opportunities to reduce the unhappiness of citizens, understand each other's positions and roles, and communicate more effectively. We look forward to a future where, instead of a small group of leaders unilaterally leading the way, every citizen contributes to a better city and community from their own place, guiding the development of the nation and humanity together. Through Urban Space Robots, we hope to enhance communication and neighborly love, and that citizens will understand that leaders, too, are humans like us, working together toward a happier city. This dissertation aims to make a small footstep toward that future.

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