Cities Without Litter Through Artificial Intelligence

‘TAKANOME’ is an artificial intelligence-based program that maps litter and measures the severity thereof using visual recognition technology. We aim to contribute to creating litter-free cities by evaluating anti-litter efforts through our cutting-edge research and providing other consulting services related to urban development.

Issues in Beautification to Date and TAKANOME

To date, it has been common for cleanup actions to be sporadic and unorganized, and consequently, it has not been for the most part possible to accurately measure the effects of cleanup actions. With the municipal/regional edition Pirika, a social network which facilitates the visualization of the cleanup process, it is now possible for users to (i) share measured results of cleanup actions, (ii) to participate and cleanup actions (regardless of time and location) and (iii) (for companies and other organizations), utilize PIRIKA as a platform for publicizing cleanup actions. The foregoing qualities of Pirika support and promote cleanup actions within municipalities. Additionally, by analyzing the type/volume of litter by region and season, Pirika contributes to effective cleanup and beautification projects.

Investigation Process Using TAKANOME

1. Develop Investigation Plan
2. Capture Street Surfaces
3. Analyze Video
4. Check Quality/Calibrate
5. Prepare Report

Depending on the purpose of the research, design research area and frequency
Capture sidewalks in research area with special app
Use visual recognition technology to analyze types and quantity of litter
Final checks by trained staff
Use heat maps to better understand results

Map Data @ 2016 Google, ZENRIN

Reduce Costs of Beautification, Cleanup and Awareness Projects
Evaluate Locations for Trash Cans and Smoking Areas
Evaluate Litter Patrol Routes
Sync with Regional Cleanup Efforts
Research to Prevent Littering
Compare Against Other Regions

Pirika Inc.
SEE MORE DETAILS... https://en.research.pirika.org/