ESSENCE

Storytelling in the sentient city

SMART CITIES

Civic institutions increasingly deploy smart city solutions to efficiently address issues they encounter in urban areas. Such,smart city initiatives usually take a quantitative approach solve : they use sensors to measure metrics like air quality, transport figures and service delivery times. However, information about citizens' experiences, opinions and behaviors is not captured, making it difficult to really understand civic challenges and inspire civic engagement.

The ESSENCE consortium aims to bring human perspectives into a smart city platform that collects many media types, from personal devices and public displays to augmented reality. The ultimate goal is to create interactive stories embedded in the city environment about civic actions that boost engagement in these projects.

Transforming data into action

The ESSENCE consortium aims to augment currentinitiatives by convergingdata with human perspectives to increase understanding ofcivic challenges,and by triggering citizens to act upon them through stories that reflect human observationand perception of civic information and sensor data. Mobile apps and public displays that are deployed by cities to publicly share insights and information can, can encourage long-term citizen action. The next evolution in smart city solutions is to enable residents to experience their cities through new media while also capturing their reactions to civic information.

Intelligent interfacing that inspires engagement

The ESSENCE consortium is composed of experts in storytelling, augmented reality communication, community engagement, behavior change, data analysis, smart city development and urban interaction design. The project will demonstrate the use of storytelling as a tool to augment citizen participation in smart city initiatives. In doing so, four innovation goals will be addressed:

1. development of a new narrative storytelling language for urban settings
2. the prototype design and development of end-to-end editorial toolchain that combines many types of data into cohesive stories
3. investigate how to combine different presentation and interaction modes, such as interactive displays, augmented reality, audio and smart lighting, and orchestrate it within a smart city environment
4. create new machine learning algorithms that model human group behavior in a smart city environment.
5. compose requirements for sustainable citizen engagement through contextual storytelling.

Cities write their own stories about projects and actions

The resulting ESSENCE platform will be tested within the Smart Zone, a part of imec's City of Things living lab in Antwerp, acting as a dedicated playground to test, validate and demonstrate the useful application of multimodal storytelling in smart cities. Passers-by will author, consume and interact with citizen-created, location-triggered stories through public and personal technologies. This platform prototype will act as a basis for further innovations or rollouts in other smart city environments.

"Imagine an intelligent, multimodal storytelling platform that links smart city data with citizens' actions, behavior and opinions in new story formats to motivate engagement in civic projects and initiatives."

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Project information

Industry

- Digitopia
- Nokia
- Sentiance
- VRT

Research

- imec – COT
- imec – IDLab Data Science Lab - UGent
- imec – SMIT – VUB
- KU Leuven – RxD

Contact

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