Proposition de recherche doctorale

Leveraging universal social networking and the IoT for urban-scale participatory systems

Mots clés : Array

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- Domaine scientifique principal: Sciences et technologies de l'information et de la communication

Résumé du projet de recherche (Langue 1)

The PhD research relates to the study of how software systems may enable participatory democracy, that is, the participation of citizens in democratic assembly, action, and governance. In this context, a key challenge lies in providing the right incentive for people to engage and keep getting involved. Overcoming such a challenge through the study of relevant middleware support that may be reused across participatory systems is the focus of the PhD.

Incentive mechanisms for participatory systems have been studied extensively in the literature. Building upon the research background of the Inria MIMOVE team, the PhD will more specifically focus on the study of solutions that leverage mobile networking and the IoT. Indeed, these are two essential elements for connecting people with their environment and communities, which may serve sustaining people's participation across time.

The PhD work will in particular consider the following research questions:

- How to leverage the IoT for participatory systems: The objective here is to enrich the exchange among citizens through the provision of relevant observations from the physical environment. Things may further extend to "social things" (e.g., social bots) that autonomously communicate with the engaged citizens so as to foster interaction among them, while preserving their respective privacy.
- How to support the continuous engagement of nomadic users: Despite the increased capacity of smartphones, connectivity and relative resource constraints, esp. wrt energy, remain the norm. It is thus essential to customize protocols for the mobile case so that citizens are able to engage any-time, any-where, when that is the most relevant with respect to the purpose of the given participatory system.

Informations complémentaires (Langue 1)

See attached document for detail