

Sensor Networks on-the-fly

The future of machine to machine communication is built on autonomous discovery of networking resources. Prime among those, are sensors that could report live data and feed decision making systems. The prevalence of smart devices (smartphones, tablets, smart watches, etc) offers a unique opportunity for developing instantaneous sensing networks. That is, collecting sensed data from a multiplicity of devices in any given region without deploying an infrastructure beforehand. This project will focus on developing heuristics for online discovery, [profiling and registration of on-the-fly sensing and networking resources. Building on a resource classification system that is available to this project, the objective would be to manifest available resources in a given region over a map interface. This could typically be realized over Google maps' API. A core challenge in this project is identifying usable sensors among those that are unreachable, highly-mobile (i.e. only instantaneously available), or with poor quality.

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