WEB OF THINGS

architecting the web of things for tinkerers and hackers

second international workshop on the web of things (WoT 2011)
in conjunction with pervasive 2011, san francisco, june 12-15 2011

http://www.webofthings.com/wot

abstract

The world of embedded devices has experienced radical changes; home appliances, industrial machines, cars and other daily objects are being increasingly instrumented with tiny computers, sensors, and network interfaces. As Internet access is becoming a commodity, various computing devices and inanimate objects (wireless sensor networks, mobile phones, embedded computers, RFID tags etc.) can have an online presence that allows to retrieve data about objects and interact with them. This convergence of sensing, computing and Internet-scale networking provides new design opportunities and challenges, as digital communication networks will increasingly contain real-world devices and allow direct read/write interactions with them. While the "Internet of Things" has become a legitimate research domain in the pervasive and ubiquitous computing communities, its main focus has been on establishing connectivity in a variety of challenging and constrained networking environments. As these lower-level, technical problems are being solved, a whole new world of higher-level problems open up. The "Web of Things" is the next logical step in this evolution towards global networks of sensors and actuators, enabling new applications and providing new opportunities. The Web of Things explores the layer on top of connectivity with Things and addresses issues such as fast prototyping, data integration, and interaction with objects. Because the Web is omnipresent and flexible enough, it has become as an excellent protocol for interacting with embedded devices, and the Web of Things is a vision where things become seamlessly integrated into the Web - not just through Web-based user interfaces of custom applications, but by reusing the architectural principles of the Web for interacting with devices. The "Web of Things" workshop solicits contributions in all areas related to the Web of Things, and we invite application designers to think beyond sensor networks and Web applications, and to imagine, design, build, evaluate and share their thoughts and visions on what the future of the Web and networked devices will be.

topics

- Decentralized Web architectures for the Web of Things
- Real-time communication with physical objects
- Deployments and evaluations of Web of Things systems
- Human-things interaction models and paradigms
- Web composition of the physical world and physical mashups
- Searching and discovering things and their services on the Web
- Security, access control, sharing of physical things on the Web
- Applications of the Web of Things (smart homes/cities/factories)
- Business opportunities for the Web of Things
- Application of various Web tools and techniques for the physical world (e.g. HTML5, microformats, caching, REST, cloud and services, social networks, etc.)

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In this second edition of the workshop will will consolidate the community and focus even more on the Web aspect of networked things. We will provide an interactive forum for WoT researchers to learn and discuss about existing efforts to enable cross-fertilization. In order to ensure a high-quality technical session, submissions must cover one of the topics above and should not exceed six (6) ACM SIG Proceedings Template pages. Research papers must be original prior unpublished work and not under review elsewhere as they will be published to the ACM digital library and listed on DBLP. All submissions will be peer-reviewed and selected based on their originality, merit, and relevance to the workshop. Submission requires at least one author to present the paper on-site.

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