What does cognitive computing mean to Internet of Things?

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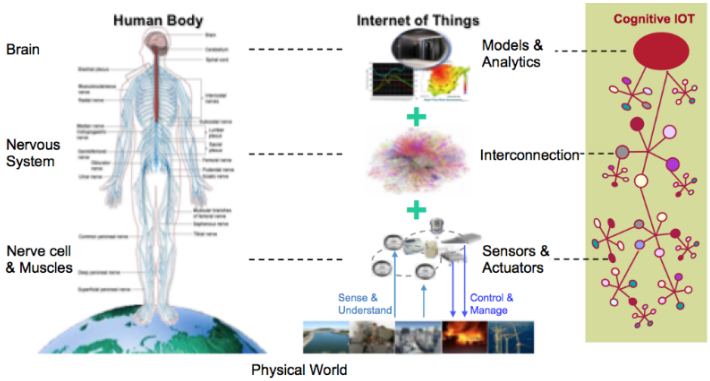
The connected IoT devices will grow from 10.3 billion in 2014 to more than 29.5 billion in 2020 according to IDC forecast. These devices are generating incredible amount of structured as well as unstructured streaming data. The industry is inspired to maximize the values of available IoT devices as well as to analyze data in a meaningful and

I just came back from a few industry conferences, e.g. I Interconnect 2016 at Las V China Smart Home Summi Global Electronic Forum 2 Shanghai. Clearly IoT is t hottest topic being discusse industry. Through keynote, and demo sessions in these conferences, I shared my view of cognitive Internet of Things. Let me summariz it really mean.



Human body are cognit systems supported by various types of sensation, neural connetions and a robost processing unit- the brain, Traditionally, IoT refer to the sensing, transmitting, storing and reporting of data generated by physical systems.However, we believe Cognitive IoT Analytics is becoming a critical capability in driving innovations in IoT. *Cognition* refers to trained mental action or processes in helping systems to learn over time. It ingests and absorbs knowledges through senses and experiences, providing unparalleled insights via big data analytics

perceive, learn data from different systems, IoT will be able to acquire knowledge represented by cognitive models of the “system under management” which could be a consumer, patient, device, industrial or earth system such as oil or mine filed. Once the model becomes predictive, we can then (automatically or manually) reason with what-if scenarios and human interactions to find an optimal and intelligent control for the system that will bring next generation products and services to many industries. For example, cognitive analytics could learn from the connected vehicle data streams to predict the driver's route, by pulling in the weather and traffic data, highly targeted real-time driving assistance capability could be built as part of the highly automated vehicle product; cognitive analytics could learn from the connected appliance data streams to discover the household's living style, by pulling in the commerce data, highly targeted promotion services could be provided; cognitive analytics could learn from the wearable device data streams to reason human's health condition, by pulling in the medical record data, highly targeted wellness and chronic disease management service could be offered; cognitive analytics could learn from the connected production line to detect product defects with image and acoustics understanding technologies so as to optimize quality management operations. I believe you will find the scenarios in your domain. The cognitive IoT technologies could turn those scenarios in reality!

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