

The Internet of Things and big data in the real world

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7 Oct 2015

Technology often progresses in ways that can surprise us. Just eight years ago, many people thought of the then-new Apple iPhone as an expensive toy of little interest to the workaday world or the average consumer. The idea that nearly everyone would own such a gadget sounded like crazy talk to some.



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Today, the average Joe, Jane and their grandparents have a smartphone, and nearly everyone in the workforce depends on a mobile device to be productive. The Internet of Things is on the verge of a similar explosion into the mainstream, and it promises to transform business processes even more deeply than mobile devices have.

Yet many people still think of the Internet of Things - along with related trends such as autonomous self-driving cars, advanced robotics, and software intelligence - as the stuff of science-fiction.

So, here are three real-world examples of how the Internet of Things is already finding a foothold in enterprises.

1. Fleet Management

Vehicle telematics has been around for a while, with many companies that run large fleets using it to monitor driver behaviour and track the locations of their vehicles. Some insurance companies also use it to monitor driver behaviour (acceleration, braking, cornering, speeding, etc.) and reward insured drivers for driving safely.

The Internet of Things promises to take vehicle telematics to a whole new level by giving organisations the ability to collect richer data about vehicles and drivers, and acting on this information in real-time. Companies like [UPS](#), one of the world's largest shipping groups, are already tapping into this potential. UPS uses sensors on its delivery vehicles to monitor speed, fuel consumption, mileage, the number of stops, and engine health. The sensors in its vehicles capture more than 200 data points for each of its 80,000 vehicles. The information allows the company to reduce idling time, fuel consumption, and harmful emissions.

2. Healthcare

More and more people are using fitness trackers and smartphone apps to stay on top of their heart rates, the distance

they've jogged and other health data. But expect many other radical applications of the Internet of Things to rapidly emerge in the health and lifestyle segment.

For example, an American company called [Preventice](#) has developed a platform that brings together mobile, tablet, cloud, and physiological monitoring technologies for remote patient monitoring. Its [BodyGuardian Sensor](#) and sophisticated algorithms allow doctors and nurses to monitor a patient's health remotely so he or she doesn't need to stay in the hospital longer than necessary.

Another US startup called [Proteus](#) is pioneering smart pills. Each pill contains a tiny sensor so medical professionals and health insurers can track whether a patient is adhering to her treatment regime as well as how it is affecting her body.

3. Agriculture

One of the most interesting examples of a traditional company using the Internet of Things to change its industry is the multinational farming equipment and supplies firm, [John Deere](#). It has developed a system that uses field-installed probes to monitor soil moisture levels at various depths. The platform then sends the information to a web-based interface where farms can see the data and make timely irrigation decisions from anywhere.

Farmers can also use environmental sensors to measure air and soil temperature, wind speed, humidity, solar radiation, rainfall and leaf wetness. Thus, the combination of sensors and big data analytics empowers farmers to see where crops thrive so they can become more profitable.

Closing words

Though it seems overhyped right now, the Internet of Things will have a massive impact on industries as diverse as utilities, telecoms, manufacturing, healthcare and logistics in the years to come. It will enable enterprises to automate many tasks and roles that once needed human intervention. In the process, it will speed up business processes, reduce costs, and allow for timelier, better-informed decision-making.

We see the Internet of Things as a major opportunity for our clients because it allows them to connect nearly all of their business equipment, assets, and people together in an intelligent and responsive network. Suddenly, objects can communicate directly with each other, and react to the world around them.

To take advantage of massive data volumes, and intelligent, connected sensors and devices in the workplace, companies will need to invest in robust business management systems. Companies that have this back-office fundamental in place will be in an excellent position to take advantage of the benefits offered by the Internet of Things.

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