Internet of Things:
Disrupting The Technology That Disrupted The World.

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Abstract

In the early 90's an innovative network became available to the public and began transforming itself into a network we all know and use every day now.

From its very first steps as ARPNET in 1966, where it started as a tool to help Universities share information, ideas and resources in a way that nobody had ever seen before, it worked its way through different procedures, stages and combinations to develop into the final network called "Internet".

The combination of the workings of the RAND Corporation (U.S.A.), which was a *Military Network* concept, the NPL (National Physical Laboratory, U.K.), a *Commercial Network* concept and the CYCLADES (France), which was a *Scientific Network* concept, led to the early stages of today's Internet.

This was the biggest disruptive technology in all history and now this same technology is getting disrupted by its own capabilities: The Internet of Things.

Internet has proven to be the ultimate place where billions of solutions have been developed, deployed, tried and enhanced in order to make our lives simpler and our experiences seamless. In the age of fast internet speeds, big amounts of data and cheaper hardware such as RAM's needed for fast computing and calculation speeds, the time has already come for us to collect, manage and manipulate data in a new way. Concepts such as Cloud Computing, Quantum Computing, Big Data and Machine Learning have already been tested and in the next few years we will see all the above combined in a way that will benefit us and make processes more efficient, leveraging the capabilities of the Internet of Things, which has already started changing the way we live and work, the way we interact in our everyday exchanges and life and most importantly the way the Internet can be used from now on.

This technology provides an easier way of communication between devices with the minimum interaction by humans and represents the next evolution of the Internet, taking a huge leap in its ability to gather, analyze and distribute data that we can turn into information, knowledge and, ultimately, wisdom. Quantum leaps have been ongoing.

Internet of Things takes advantage of advancements in network interconnections and computing ability to propose new techniques. Businesses change their business models, individuals make their life less complex and automation of activities can be implemented by end users as well as whole industries, companies and production lines.

In the present paper, I will be trying to approach the concept of the Internet of Things and the changes it brings to our homes, offices, cities and vehicles as well as to different industries such as manufacturing, transportation, healthcare, energy and agriculture. As the Internet of Things is an emerging topic in today's era, I will also explore the significance it has in business and social fields.

Some of the potentials that the usage of Internet of Things has from the business point of view will be apposed through an IoT demo example I built for SAP Hellas, based on the concept of real-time data acquisition, manipulation, analysis and decision making. Security issues and limitations will also be mentioned as well as the forthcoming trends for the next years.

It is proven, by now, that when it comes to technological evolution, we have to keep an open mind and not allow our current knowledge and experiences constrain the potential that a disrupting technology can provide us with.

Keywords: Internet of Things, IoT, Sensors, Smart City, Smart Home, Smart Vehicle, SAP Hellas