The Internet of Things (IoT) refers to using the internet to connect a variety of different devices embedded in everyday objects, allowing them to exchange information with, and be controlled by other devices, and central services. So, in other words connecting a widget with a gadget to send data over the internet to another gadget.

Digital transformation is so yesterday. An era in which we enabled our products and services to be accessible to our end customers anywhere, any time, on any device. But we’ve moved to the next era, an era where organizations will derive sustainable advantage from knowledge and service-based activities that leverage intellectual assets. So, the intelligent enterprise will leverage people and data created by its knowledge and service-based activities to derive an advantage.

In the intelligent enterprise era, data generated at the front line is presented as information in the digital boardroom. The equipment used to create, move, distribute, and sell products and services are harvested from vital structured data, and transformed into information. This is, in turn, added to from a plethora of interdependent structured and unstructured data sources and ultimately, made available as information to help make the next crucial business decision. Presented on your connected device.

In the intelligent enterprise era, your business will work differently:
- Consumer attitudes might change and affect the way you market or sell because of one tweet.
- A competitor might launch a product or service and it sets the world alight cutting into your market share.
- A political decision in a foreign market affects your scarce resource supplier.
- Waste caused by wait times within a process costs money, raises your carbon footprint and causes people to question your environmental protection promises.
- Reacting to a weather forecast proactively could limit losses and damages.

There are many more examples of where a change in the business environment demands a reaction. Change is happening at breakneck speed, getting faster every day. Possibly this is because we have more things which can change. More importantly though, there is data instantly available about the change. If you miss the opportunity to react to the change, it is likely your business will suffer.

If you are still pondering digital transformation, or you missed out entirely, all is not lost. You can move directly into the intelligent enterprise era.
Soon, anything with an on-off switch will have Wi-Fi and a sensor built into it. All these devices will potentially be able to connect to the internet. This creates a giant interconnected network of devices facilitating communication between people, devices, and people and devices. IoT is here to stay and you need to react to the change.

Gartner predicts that by 2020 there will be 26 billion connected devices. The lines between a device in your home collecting and sending data about consumption of anything becomes blurred by the business collecting that data and using it for an advantage.

Each day as new devices are enabled, new possibilities of data harvesting appear, and new opportunities present themselves to use that data. The opportunity to gain a competitive advantage and drive exponential business outcomes by using IoT and the data it presents should be grasped. This is already an integral part of our lives today, both in a personal and business environment and it's only going to become more prevalent.

The picture below shows an example of a smart city, where a multitude of devices send and receive data between each other and applications. For example, energy consumption data is harvested, highlighting consumption patterns which, now visible, allows more efficient use of energy; air quality is improved through a slight adjustment to the generating function, which allows for cleaner air; cars fitted with sensors send data to other sensors and ultimately to an application which allows traffic congestion detection, reacting to it in real time by changing traffic light sequencing to ease traffic flow.

The key though, is to react quickly. If you embarked on a project to connect devices and harvest data which will take months to deliver results, by the time you reach month two of moving out of the ideation and into development, the landscape you targeted to harvest data from has changed significantly. Ideally, you want to design quickly, develop quickly; know early on if you fail or if you are on the right track; allow a process where you can change tack mid-flight because some emergent change will impact success.

Design thinking allows such flexibility: it provides a solution-based approach to solving problems. It proves its worth when complex problems are ill-defined or unknown. It starts off with understanding the human needs involved. Ideas are discussed in brainstorming sessions and a hands-on approach to prototyping and testing a solution is used.
The challenge of developing and delivering solutions in the shortest sustainable lead time, scaling from simple software solutions to building aircraft. It allows you to fail fast or deliver fast. Taking advantage of this will help you become an intelligent enterprise now. Enable your devices to send valuable data to your decision-making applications. This is built on IoT, driving the business outcomes you need to run your business as an intelligent enterprise, and capitalizing on the rapid innovation.

References


Disclaimer: The work described in this thought leadership was performed while the company was known as Dimension Data.