

Plenary : The Future of Information : How New Technologies are Impacting You, Your Agency and Sensitive Data

Facilitator :

M. Peter Doolan, Vice-president senior, Global Enterprise Sales Engineering

Date and time : Tuesday December 10 2013, 9:00 am

Rapporteur : Patrick Giasson

Session Summary

Mr. Doolan began his presentation with a quick overview of the history of technology since the Roman Empire, by detailing the case of the discovery of aluminum. At the time of the military campaigns of the Roman Empire, this discovery gave the Romans the technological upper hand since aluminum provides a number of technological advantages and is produced from bauxite, a very abundant resource. However, the method for producing aluminum required a great deal of energy, and the metal thus proved to be a very rare and costly product. However, with the invention of electricity aluminum was no longer in short supply or nearly so costly. This illustration of technological progress as a catalyst for the relative abundance of a resource served as an introduction to the topic of his talk: cloud computing.

During the 1960s, data processing was limited to the use of enormous computers by a handful of leaders. In the 1980s, the advent of the personal computer democratized access to this technology. Today the emergence of cloud computing will again revolutionize the use of data processing by consumers. Cloud computing is in fact the networking of everyday products and devices. The benefits of this interconnection of devices include quickness, facility, easy access, flexibility, and reliability.

This new technology has the power to profoundly change the way in which markets are structured and to transform corporate business models. The production of applications will henceforth be decentralized and in the hands of consumers. Any individual can now create a new application. The process of innovation is thus democratized. Furthermore, updates are made automatically, given that any designer or creator can improve an application.

This leads to a new reality: the Internet of Things. Mr. Doolan provided the example of the development of a Smart Thermostat, which is connected to your appliances or communication tools in order to optimize energy use. Depending on a person's location, the thermostat will know how much to heat, or not heat, a house or a room.

Thus cloud computing now provides access to technology, no matter where we are located. Mr. Doolan gave the example of General Electric, which revised its marketing strategy for airplane motors by moving from a company selling motors to a firm commercializing a technology designed to optimize fuel consumption. Electronic chips in the motor provide the airplane pilot with the information required to make enlightened decisions concerning altitude or trajectory, so as to reduce fuel consumption wherever the plane may be located on or around the planet.

The presentation concluded with a short question period concerning 3D printing technology and the use of data for harmful purposes by individuals or organizations.