



McGill

School of

Studies | École  
d'éducation permanente

## What is 5G?

5G, as in “fifth generation”, represents the next iteration of the evolution of mobile technology. These generations seem to be following approximately 10-year cycles and we really are at the beginning of this new cycle today. Whereas the first 4 generations (1G to 4G) largely focused on basic mobile connectivity and improved connection speeds, 5G opens the door to a radically different network view, enabling high performance connections between people, machines, and objects on a massive scale. New capabilities include ultra low latency and availability, extreme network capacity and associated gigabit per second user experience rates, significantly improved power efficiency, and more uniform user experiences. These improvements will drive a wide spectrum of new opportunities (impacting both consumers and businesses) fundamentally altering how we live, move, work, play, and even innovate!

## What sectors will 5G impact?

5G is expected to impact a wide spectrum of industry verticals. Some of the short- to mid-term 5G use cases fall under the following sectors:

- Manufacturing
- Retail
- Healthcare
- Automotive/Transport
- Energy
- Entertainment
- Financial Services
- Agriculture
- Insurance
- Supply Chain Management

## What does this workshop cover?

The fundamental goal of this workshop is to present the market dynamics of 5G and explore emerging commercial opportunities, key players, technologies, benefits and challenges. Although we will touch on some of the engineering and architectural components, the focus will be on the business side of 5G, including opportunities, use cases and innovations that this technology will enable. Learnings will be enhanced and reinforced by practical exercises so you leave with new knowledge that you can begin to apply to your work or business immediately in preparing for 5G.

During this workshop, we will explore the following themes and topics:

- 5G Fundamentals & Building Blocks
- Target 5G Use Cases and Benefits (e.g., Smart Cities, Autonomous Transport, Smart Factory, Gaming)
- 5G Industry Dynamics and Ecosystem Challenges

- How does **COVID-19** change the 5G game?
- Taming the “elephants in the room” – Potential 5G health risks and environmental impacts
- Techno-Convergence and 5G Innovation – AI, Cloud, Blockchain, Quantum Computing
- Market positioning of key global platform/infrastructure players including Amazon, Google, Microsoft, Apple, Facebook, Salesforce, IBM, Oracle, and SAP
- North American Commercial Status - USA & CANADA. Will have some highlights on what is happening in Europe and Asia as well depending on the student mix.
- How can businesses best prepare for this 5G tsunami?

### **What knowledge will workshop participants be equipped with once complete?**

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**Who is the presenter?**