Building a City with Emerging Technologies: Where are we going next?

Presented by Lana Phillips July 5, 2019 - CIP Conference

Who are you?

- Name
- What about this topic excites you?
- What type of planning do you do?

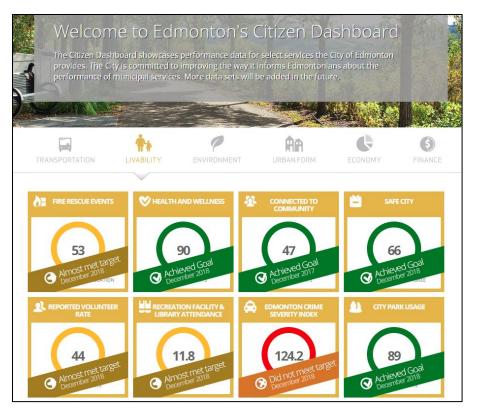


The BIG Question

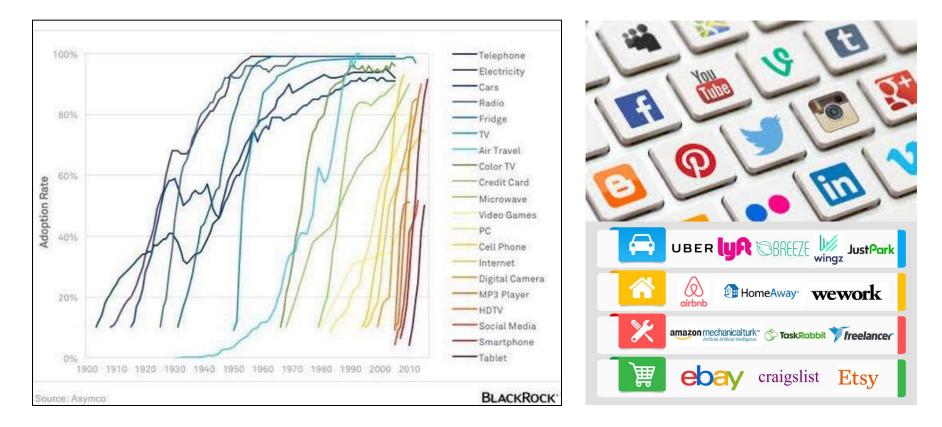
How do emerging technologies impact the the business of city building and the role of planners?

Business of City Building

- Changed expectations of government and companies
- Participation in decision making
- Customer experience
- Government as businesses



Change is constant and accelerated

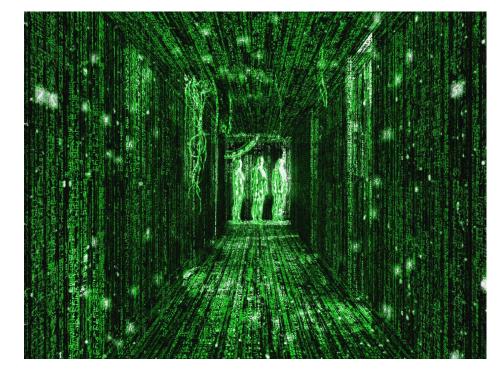


Basic Technology Expectations

What do people expect as the 'basics' when it comes to using technology in city building?

Emerging Technologies

- Artificial Intelligence
- Drones
- Robotics
- Augmented Reality
- Virtual Reality
- 3D Print
- and more



Enablers to Emerging Technologies



- More data
- Advance algorithms
- Computing power and storage
- Smart phones

Data & Algorithm Considerations

- Collection
- Use
- Quality
- Privacy
- Bias



Artificial Intelligence

- Allows machines to learn from experience, adjust to new inputs and perform human-like tasks
- Natural language processing
- Machine learning and deep learning



Alberta Machine Intelligence Institute - to advance scientific research, cultivate talent and enhance business so that we can build a thriving machine intelligence ecosystem in Alberta. (https://www.amii.ca/)

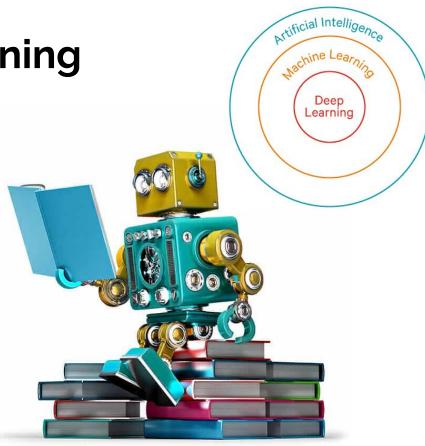
Natural Language Processing

- Helps computers understand, interpret and manipulate human language
- Pursuit to fill the gap between human communication and computer understanding



Machine and Deep Learning

- Computer learns based experience / access to inputs
- Different types of learning



Applying Artificial Intelligence

- How can AI be used to solve planning challenges?
 - Transportation
 - Climate change
 - Natural disasters ...

- What are the benefits?
- What are the risks / things to consider?

Applying a Predictive Model

Non-mandatory Safety
Codes inspections

- 10 years of data
- Engage experts early and often
- Manage the change



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Role of the Planner

THE PUBLIC INTEREST

Planners practice in a manner that respects the diversity, needs, values, and aspirations of the public, as well as acknowledge the inter-related nature of planning decisions and the consequences for natural and human environments.

CLIENTS AND EMPLOYERS

Planners provide independent professional opinion to clients, employers, the public, and tribunals, as well as undertake planning services with diligence and render services with appropriate preparation.

THE PROFESSION AND OTHER PLANNERS

Planners maintain an appropriate awareness of planning theory and practice by obtaining professional education throughout their planning career and act toward other Members and colleagues in a spirit of fairness and consideration.

Discussion - Role of the Planner

How might these technologies change the your role / role of the planner?

How will you prepare yourself?

Thank you!

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