Cyber Crime and Your Business
A Global Perspective

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A World of Risks

World Economic Forum – Global Risks 2017

- **Definition of Global Risks and Trends**
  - A **global risk** is an uncertain event or condition that, if it occurs, can cause significant negative impact for several countries or industries within the next 10 years.
  - A **global trend** is a long-term pattern that is currently taking place and that could contribute to amplifying global risks and/or altering the relationship between them.

(World Economic Forum, 2017)
World Economic Forum – Global Risks 2017


### Top 10 risks in terms of Likelihood

1. Extreme weather events
2. Large-scale involuntary migration
3. Natural disasters
4. Terrorist attacks
5. Data fraud or theft
6. Cyberattacks
7. Illicit trade
8. Man-made environmental disasters
9. Interstate conflict
10. Failure of national governance

(World Economic Forum, 2017)
These are the top 5 risks to doing business in North America

1. Cyber attacks
2. Fiscal crises
3. Energy price shock
4. Data fraud or theft
5. Asset bubble


## World Economic Forum – Global Risks 2017 – Concerns of Doing Business Risks – Global vs Canada

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<th>Top Global Tech Risks</th>
<th>Top Canadian Tech Risks</th>
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<tr>
<td>12&lt;sup&gt;th&lt;/sup&gt; – Cyberattacks</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; – Cyberattacks</td>
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<tr>
<td>14&lt;sup&gt;th&lt;/sup&gt; – Data Fraud or Theft</td>
<td>9&lt;sup&gt;th&lt;/sup&gt; – Data Fraud or Theft</td>
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<td>22&lt;sup&gt;nd&lt;/sup&gt; – Misuse of Technology</td>
<td>14&lt;sup&gt;th&lt;/sup&gt; – Misuse of Technology</td>
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<tr>
<td>25&lt;sup&gt;th&lt;/sup&gt; – Critical Information Infrastructure Breakdown</td>
<td>15&lt;sup&gt;th&lt;/sup&gt; – Critical Information Infrastructure Breakdown</td>
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The Internet of Things – Adoption by 2020

- 4 BILLION Connected People
- $4 TRILLION Revenue Opportunity
- 25+ MILLION Apps
- 25+ BILLION Embedded and Intelligent Systems
- 50 TRILLION GBs of Data

Source: Mario Morales, IDC

(Wordstream, 2015)
Satya Nadella @satyanadella “great doodle of the world of data. catalyzing data exhaust into fuel for ambient intelligence”

(Meisner, 2014)
Data Exhaust – What is it?

- Refers to the data generated as *trails or information byproducts* resulting from all digital or online activities.
- These consist of *storable choices, actions and preferences* such as log files, cookies, temporary files and even information that is generated for every process or transaction done digitally.
- This data can be *very revealing about an individual*, so it is very valuable to researchers and especially to marketers and business entities.

(Techopedia, 2016)
Internet of Things + Big Data

PEOPLE + DEVICES = BIG DATA
+ THINGS + NETWORKS

ARE WE DOING ENOUGH? CAN WE KEEP UP?
Cybersecurity – Holistic Approach

- People
- Technology
- Process
- Policy
- Cybersecurity (Risk Based Approach)
Practical Approaches

• Business Impact Assessments
Definition of Business Impact Analysis

• Gartner Definition:
  – A business impact analysis (BIA) is a process that identifies and evaluates the potential effects (financial, life/safety, regulatory, legal/contractual, reputation and so forth) of natural and man-made events on business operations.
Objectives of BIA

- Identify critical business functions (CBFs)
- Identify critical resources
- Identify maximum acceptable outage (MAO)
- Identify indirect costs
- Identify recovery requirements
Definition of Critical Business Functions

- Critical functions are those activities that are vital to your organization’s survival and to the resumption of business operations. Typically, your critical functions are the business functions that are:

  1. most sensitive to downtime
  2. fulfill legal or financial obligations to maintain cash flow
  3. play a key role in maintaining your business’ market share and reputation
  4. Safeguard an irreplaceable asset

Definition from Arthur J. Gallagher and Co
Dimensions of a BIA

• Identify the business impact of IT disruptions
• Mission critical IT systems and components
• Does not analyze all IT functions
• Stakeholders identify mission critical systems
• Compliance issues often drive BIA
• Inputs into the business continuity plan (BCP) and risk assessment (RA)
### Steps Involved in Implementing a BIA

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<td>Identify the environment</td>
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<td>Identify stakeholders</td>
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<td>Identify Critical Business Functions</td>
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<tr>
<td>Identify maximum downtime</td>
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<td>Identify critical resources</td>
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<td>Identify recovery priorities</td>
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<td>Develop a BIA report</td>
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References