




# WELCOME TO ENGINEER 4A03 WEEK 9 Lecture



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ENGINEERING



**Ethics, Equity and  
Law in Engineering  
FA24**

# Updated Schedule

3. SCHEDULE			
WEEK	Topics	Assignments (Due Date 1159pm)	Quiz (Due Date 6pm)
WEEK 1 · 9/5	Introduction; The Engineer's Concern		
WEEK 2 · 9/11	Technology and Society		
WEEK 3 · 9/19	Technology Assessment	Assignment 1 (10/2)	Quiz 1 (9/19)

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WEEK 4 · 9/26	EDI: Guest Lecture 1	Part I: Literature Review (10/9)	Quiz 2 (9/26)
WEEK 5 · 10/3	Ethics		Quiz 3 (10/3)
WEEK 6 · 10/10	Misconduct		Quiz 4 (10/10)
WEEK 7 · 10/17	<b>READING WEEK</b>		
WEEK 8 · 10/24	General Insurance Concepts: Guest Lecture 2		Quiz 5 (10/24)
WEEK 9 · 10/31	The Corporation	Part II: Case Study (11/13)	Quiz 6 (10/31)
WEEK 10 · 11/7	EDI: Guest Lecture 3	Assignment 2 (11/20)	Quiz 7 (11/7)
WEEK 11 · 11/14	Law Intro, Engineers Act & PEO	Assignment 3 (11/27)	Quiz 8 (11/14)
WEEK 12 · 11/21	Patents & IP: Guest Lecture 4	Part III: Project Evaluation (12/4)	Quiz 9 (11/21)
WEEK 13 · 11/28	Contract Law: Guest Lecture 5		Quiz 10 (11/28)
<b>4. ASSESSMENT OF LEARNING</b>		<b>WEIGHT %</b>	

# Hierarchy of Resources

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Excellent	<ul style="list-style-type: none"><li>• Government documents (Statistics Canada, CMHC,...)</li><li>• Government websites</li><li>• Peer-reviewed journal articles</li><li>• Governing bodies such as IEEE, PEO,...</li><li>• Standards (CSA, ISO,...)</li><li>• PhD or MBA dissertations and research</li><li>• Educational Institutions</li></ul>
Good	<ul style="list-style-type: none"><li>• News articles that are current and contain data that is not published elsewhere</li><li>• News articles that quote an expert in a field</li><li>• Official websites that are primary sources where an author and a date can be verified</li></ul>
Poor	<ul style="list-style-type: none"><li>• News articles that are old and/or are a secondary source for data that can be found in an official source</li><li>• Websites where the date of the data cannot be verified</li><li>• Any secondary source</li></ul>
Abysmal	<ul style="list-style-type: none"><li>• Wikipedia</li><li>• Websites, where it is unclear who the author is and the date of the data collection cannot be found</li><li>• Blogs/vlogs where the expertise of the author cannot be verified</li><li>• online encyclopedias (eg. Wikipedia)</li><li>• general online dictionaries</li></ul>

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# A Few Pointers

1. Use Library to access papers
2. My preference is [webofscience.org](http://webofscience.org)
3. APA or IEEE citation styles acceptable
4. Use Mendeley or Zotero

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# What is whistleblowing?

... is when an employee reveals corporate wrongdoing to law enforcement.

*“an act of a man or a woman who, believing in the public interest overrides the interest of the organization he serves, publicly blows the whistle if the organization is involved in corrupt, illegal, fraudulent or harmful activity.”*

**Ralph Nader, 1972**





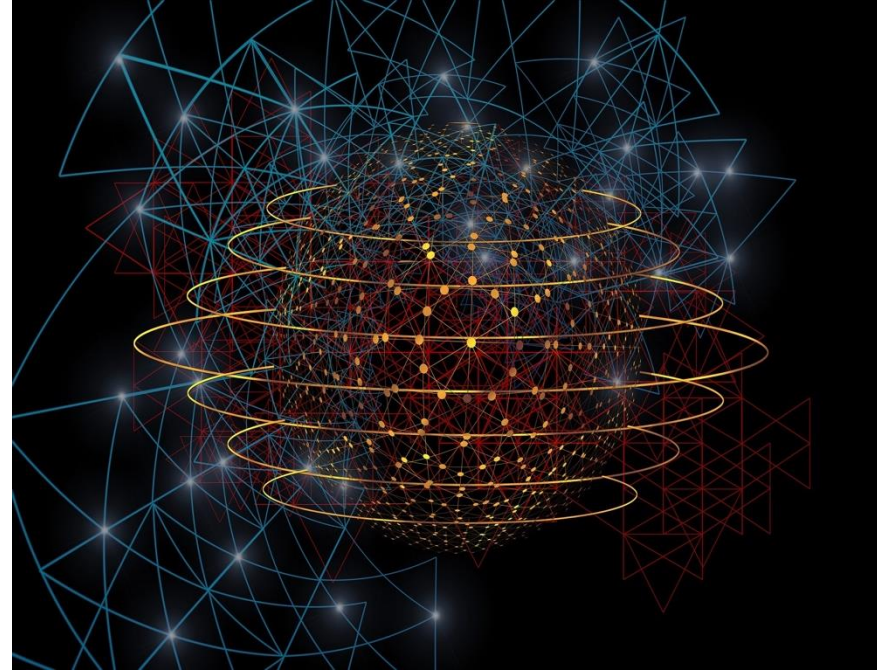
# OUR AGENDA

Upon completion of this presentation, participants will be able to:

- Explain Insurance and the Insurance Contract
- List and describe the basic principles of Insurance
- Define Tort and Negligence
- Identify type of insurance - legal duties and liabilities

**02**

# Realities





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# What is reality?

1. Metaphysical Reality
2. Consensual Reality
3. Objective Reality
4. Subjective Reality

Remember this from one of our last lectures?

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# What drives technology?

1. Determinism?
  - Future = past + present
2. Materialism?
  - Everything = physical
3. Curiosity?
  - Why?
4. *The need to survive? Be Better? Do Better?*

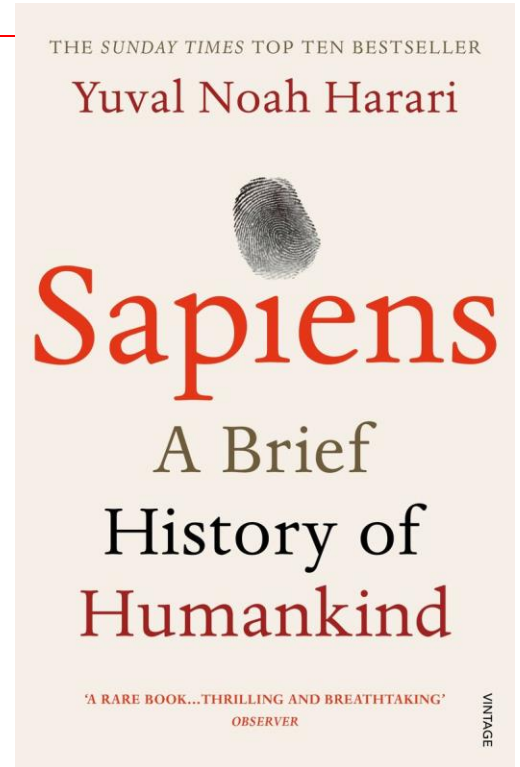
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## Key Milestones

- Cognitive Revolution
- Agricultural Revolution
- Creation of Empires
- Development of Modern Societies
- Industrial Revolution

## Civilization

- Culture and Technology
- Fictional Narratives & Myths
- Organizations



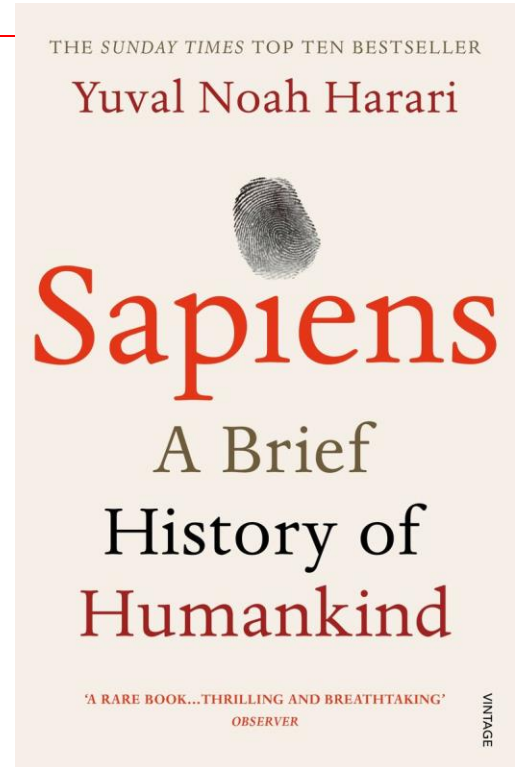
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## Objective Reality

- Physical Objects
- Natural Laws
- Scientific Truths

## Subjective Reality

- Beliefs & Values
- Traffic Laws
- Money
- Organizations





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## Humans are bonded by gossip

- Intimate relations enable the survival of small groups.
- Gossip enables the creation of larger stable bands.
- Small family businesses survive without CEOs or boards
- As family businesses grow, leadership strategies must adapt

**“Most people can neither intimately know, nor gossip effectively about, more than 150 human beings.”**

# ...Peugeot!

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Today the company employs about 200,000 people worldwide, most of whom are complete strangers to each other. These strangers cooperate so effectively that in 2008 Peugeot produced more than 1.5 million automobiles, earning revenues of about 55 billion euros.

In what sense can we say that Peugeot SA (the company's official name) exists? There are many Peugeot vehicles, but these are obviously not the company. Even if every Peugeot in the world were simultaneously junked and sold for scrap metal, Peugeot SA would not disappear. It would continue to manufacture new cars and issue its annual report. The company owns factories, machinery and showrooms, and employs mechanics, accountants and secretaries, but all these together do not comprise Peugeot. A disaster might kill every single one of Peugeot's employees and go on to destroy all of its assembly lines and executive offices. Even then, the company could borrow money, hire new employees, build new factories and buy new machinery. Peugeot has managers and shareholders, but neither do they constitute the company. All the managers could be dismissed and all its shares sold, but the company itself would remain intact.

It doesn't mean that Peugeot SA is invulnerable or immortal. If a judge were to mandate the dissolution of the company, its factories would remain standing and its workers, accountants, managers and shareholders would continue to live – but Peugeot SA would immediately vanish. In short, Peugeot SA seems to have no essential connection to the physical world. Does it really exist?"

Peugeot is a figment of our collective imagination. Lawyers call this a 'legal fiction'. It can't be pointed at; it is not a physical object. But it exists as a legal entity. Just like you or me, it is bound by the laws of the countries in which it operates. It can open a bank account and own property. It pays taxes, and it can be sued and even prosecuted separately from any of the people who own or work for it.



**03**

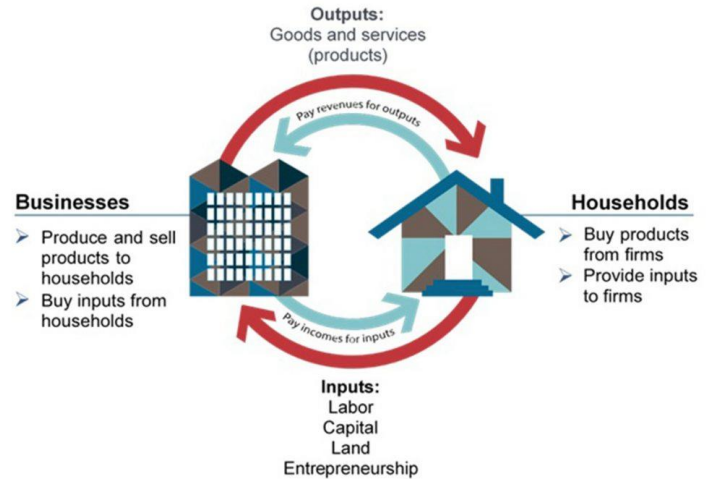
**The  
Corporation**



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# Basic Forms of Businesses

1. Sole Proprietorships
2. Partnerships
3. Corporations



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# Sole Proprietorships

## Advantages

- Easy and inexpensive to form
- Owner's right to all profits
- Direct control of the business
- Freedom from government regulation
- No special taxation
- Ease of dissolution

## Disadvantages

- Unlimited liability
- Difficulty in raising capital
- Limited managerial expertise
- Difficulty finding qualified employees
- Personal time commitment
- Unstable business life
- Owner absorbs all losses

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# Partnerships

- A partnership is two or more persons carrying on a business with a view to making a profit.
- A partnership relationship is consensual and contractual.
- A written agreement between the partners is not necessary to show that a partnership relationship exists.
- A court looks for the substance of the relationship between parties to determine if it is a partnership.

# Partnerships

## General Partnerships

- Partners co-own assets and share profits
- Each partner is individually liable for all debts and contracts of the partnership

## Limited Partnerships

- Controlled by one or more general partners who have unlimited liability
- Partner's liability is limited to their investment
- Do not participate in the firm's operations

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# Corporation

- A legal entity with an existence and life separate from its owners, who therefore are not personally liable for its debts; it can own property, enter into contracts, sue and be sued, and engage in business operations
- *Salomon v Salomon & Co LTD*
- Can exist as C or S corporations in US. (Not in Canada)



# **Types of Corporations**

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## **Private Corporation**

- A corporation that does not trade publicly and, therefore, is not listed on
- a stock exchange.
- The number of shareholders is no more than 50
- The public is not invited to share in its securities

## **Public Corporation**

- A corporation that has the right to issue shares to the general public and is listed on a stock exchange

# Corporations

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## Shareholders

- own the corporation
- can sell or transfer shares
- receive profits in the form of dividends

## Board of Directors

- elected by the shareholders
- govern the firm

## Officers

- top management that carry out the goals and policies of the board of directors

# Crown Corporations

Companies that only the provincial and federal governments can set up.

## Examples

Canada Post

Business Development Bank Canada

Canadian Broadcasting Corporation

Hydro-Quebec

VIA Rail Canada



# **THE SEPARATE CORPORATE PERSONALITY**

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- The corporation has the capacity to act independently; and
- The corporation has a separate legal personality.
- If a corporation is being used to perpetuate a fraud then the courts will recognize the acts of an individual e.g. *Fern Brand Waxes Ltd. v. Pearl*

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# Factors to Consider in choosing Business Form

1. Owner's liability for firm's debts
2. Ease and cost of forming the business
3. Ability to raise funds
4. Taxes
5. Degree of operating control the operator can retain
6. Ability to attract employees

# Corporate Corruption

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- A corporation may be liable in:
  - Tort; and
  - Contract.
- Liability in contract and tort, or civil liability, is different from criminal liability.
- A corporation may also be charged with an offence under the Criminal Code of Canada.
- Canada's rank on corruption index has fallen 'significantly' over past five years



# Business Models

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**Direct Sales:** Sell products directly to consumers or businesses without intermediaries.

**Franchise:** Company grants individuals or other businesses the right to operate under its brand and model in exchange for fees or royalties. E.g. McDonald's

**Subscription:** Customers pay a recurring fee at regular intervals (e.g., monthly or annually) to access a product/service. E.g. Netflix, iCloud, SaaS (Software as a Service) companies.

**E-commerce:** Sell physical or digital products online. Eg. Amazon, Shopify

**Freemium:** Offer basic version of product or service for free, charge for premium features. E.g. LinkedIn

# Brand Identity

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**Branding:** Creation and Management of a distinct and recognizable identity for a Company.

- Brand Name
- Logo
- Color Scheme
- Tagline
- Design Aesthetics

Personal Branding?

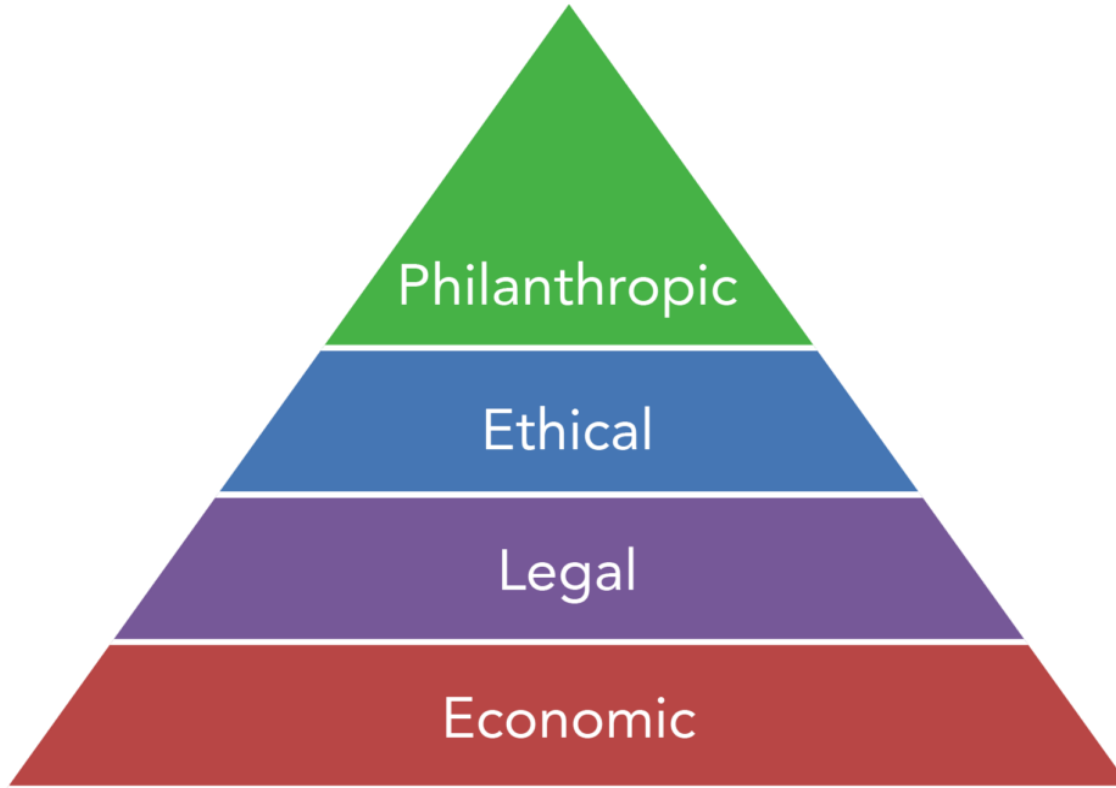
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# 04

## Corporate Social Responsibility



# Archie B. Carroll



Carroll's CSR Pyramid

# CSR Aspects

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## Ethical Business Practices:

Ethical business practices and principles.

Avoiding fraud, corruption.

Supply chains free from unethical labor practices: child labor, and human rights abuses.

## Social Responsibility:

What's the social impact of a company's activity.

Fair labor practices, promotion of EDI in the workplace.

Promote a healthy work-life balance.

# CSR Aspects

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## Environmental Responsibility:

Reducing a company's environmental impact.

Efforts to decrease carbon emissions

Conserve natural resources, and minimize waste.

Implement energy-efficient practices

Reduce water consumption

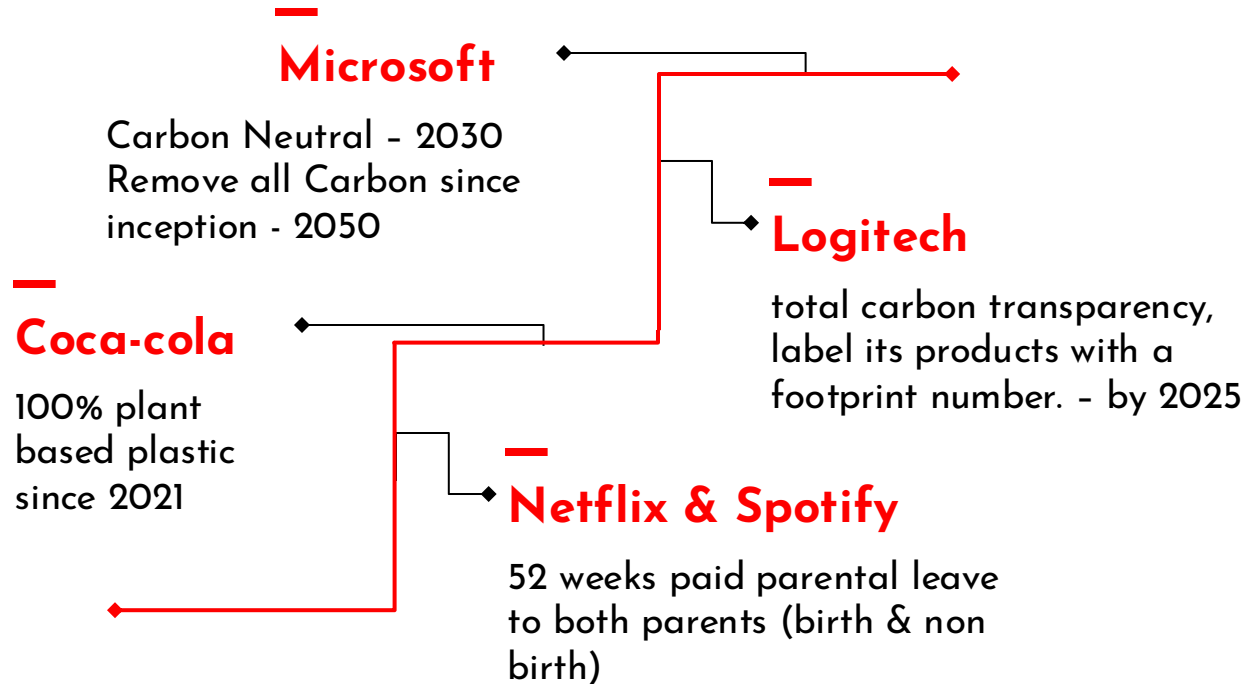
## Philanthropy and Community Engagement:

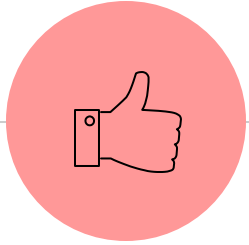
Donating to charities,

Supporting local community initiatives,

Participating in volunteer work.

# CSR examples at a glance





# Thanks!

*Let's end here today*

**Due This Week & Next Week**

- **Group Project Part 2 posted on A2L**
- **Week 9 Quiz**