IMPACT OF SOCIAL AND TECHNOLOGY CHANGE ON SOLID WASTE

Jim Lapp
Canadian Representative
Solid Waste Association of North America
The future is an unknown, but a somewhat predictable unknown. To look to the future we must first look back upon the past. That is where the seeds of the future were planted. I never think of the future. It comes soon enough.

Albert Einstein
WHAT IS THIS ABOUT?

- Social Change
- Technology Change
- Changing Wastes
- Consequences
- What About the Future?
SOCIAL CHANGE
Nunavut example
CONSEQUENCE
Lack of Infrastructure
LACK OF RESOURCES
WHERE ARE WE GOING?
WASTE COMPOSITION CHANGES WITH SOCIAL AND TECHNOLOGY ADVANCES

![Bar chart showing waste composition changes from 1905 NYC to 2010 USA](chart.png)

- Inorganics
- Food & Yard
- Products & Packaging
WE TRY TO ADAPT TO THESE CHANGES
WHAT ELSE LIES AHEAD?
GLOBAL FOOD DEMAND IS EXPECTED TO RISE BY 35% BY 2030.

in Canada

$31 billion = 40% of food produced in Canada

Tools Equipment Packaging Emissions
PACKAGING
TECHNOLOGY EVOLUTION
The car's body panels serve as a battery

The latest car manufacturers now have an innovative technology that replaces the car's steel body panels and can be used in the car's next decade, known as Flex. These panels also double as the car's battery.
3D PRINTER IN EVERY HOME
4TH INDUSTRIAL REVOLUTION

1st Steam Power Mechanization

2nd Electrical Power Mass Production

3rd Computing Power Automation

4th Internet of Things Connecting Everything
IN 5 YEARS, YOU’LL BE USING TECHNOLOGY THAT HASN’T BEEN INVENTED YET
“GARBAGE DESIGNERS WILL BE KEY PLAYERS IN A FUTURE ECONOMY”*

• WHAT ARE CONSEQUENCES OF NEW TECHNOLOGIES?
• PRODUCT DESIGN – CAN WE AVOID?
• WHAT ARE INFRASTRUCTURE NEEDS?
• WHAT ARE RESOURCE NEEDS?

*Careers 2030
WHO WILL BE THE INNOVATORS?
OLD GUYS RULE
WHAT WAS THIS ABOUT?

Social Change

Advancing Technology

Changing Waste

Innovation

Consequences
FINAL THOUGHT

We cannot solve our problems with the same thinking we used when we created them

Albert Einstein