# The Internet of Things

This resource will:

▶ make you aware of the widespread applications of the Internet of Things, and

▶ encourage you to weigh the pros and cons of having internet connected devices.

SOCIAL IMPACT

ETHICAL ISSUES

EMERGING TECHNOLOGIES

Visit cemc.uwaterloo.ca/resources/cs-and-society.html for more *CS and Society* resources.

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# The Menu

# What is the Internet of Things?

The Internet of Things (IoT) is a term you may have heard before. But what exactly is it?

## The Internet of Things

A collection of physical devices that are connected to the internet and share data with each other. For example, a phone might share data with a door lock or a car might share data with a traffic light.

According to Statista.com, in the year 2018 there were approximately **4 billion people** and **22 billion "things"** connected to the internet.

# Activity - Connected Devices

There are many different devices that make up the Internet of Things. Which ones have you experienced?

### Connected Devices
rebrand.ly/kahoot-connected-devices

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# Project - IoT Across Society

The IoT has broad applications. Individually or in small groups, research how the IoT is being used in the following sectors of society. Report your findings back to your class.

Residential
rebrand.ly/iot-residential

Retail
rebrand.ly/iot-retail

Education
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City Planning
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Farming
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Transportation
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Health Care
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Construction
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# Project Questions

1. What IoT devices or applications exist in the sector?
2. What are the benefits of IoT in this sector? Consider all the various stakeholders. For example, in the retail sector consider benefits to both the shop owner and the customer.

# Article - Big Brother
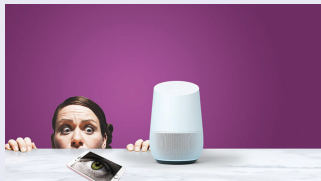
The Internet of Things is growing at a rapid pace.

The following article discusses some important issues we should keep in mind as it becomes increasing popular.

After reading the article complete the provided summary.

## Big Brother
### rebrand.ly/big-brother-alexa

Article →      Summary →

# IoT Scavenger Hunt

As you go about your week, make a list of the internet connected devices you see. You may find them in your home, at school, at work, in a store, on the road, or any number of other places.

1. Which devices did you see the most often?
2. What was the most surprising device you saw?
3. Where was the most surprising *place* you saw an internet connected device?

# Your Future (Smart) Home

Imagine your future home.

1. What internet connected devices would you like to have in your future home? Describe how they would work.

2. What internet connected devices would you **not** want to have? Why not?

3. What would you do if you and another family member disagreed about having a particular connected device?

4. What considerations would you give to guests of your home?

**For more information:**

IBM (rebrand.ly/ibm-what-is-iot)

IoT Agenda (rebrand.ly/iot-agenda)

**To build your own internet connected devices:**

Skyfi Labs (skyfilabs.com/iot-online-courses)

**To read about Orwell's 'Big Brother':**



*1984* by George Orwell

DESSERT