Sensors are Everywhere

John Antill

Metadata Standards

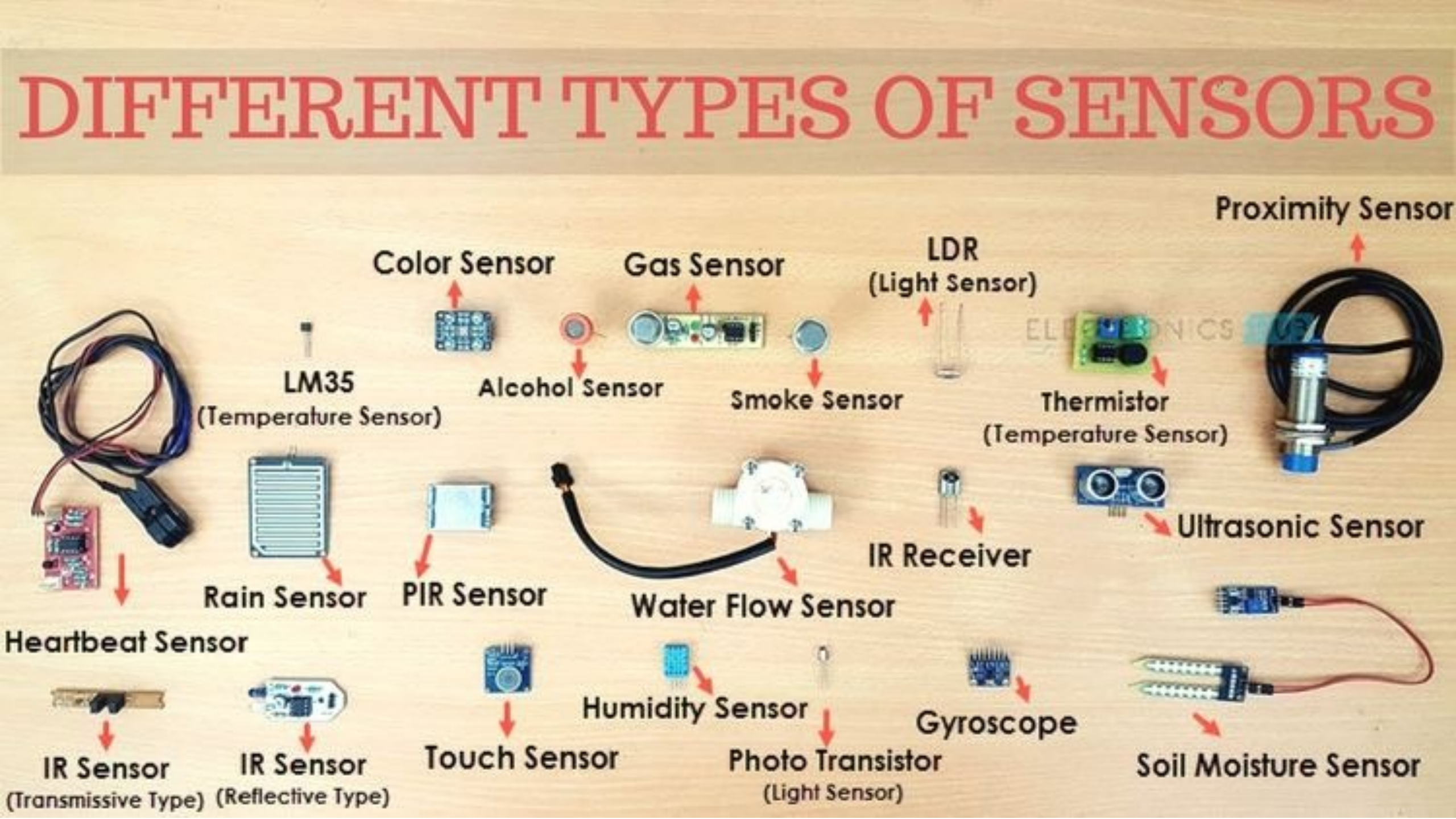
- **requirement which** is intended to establish a common understanding the meaning or semantics of the da to ensure correct and proper use ar interpretation of the data by its ow and users
- Types of Metadata include Technica Business, Descriptive, Operational

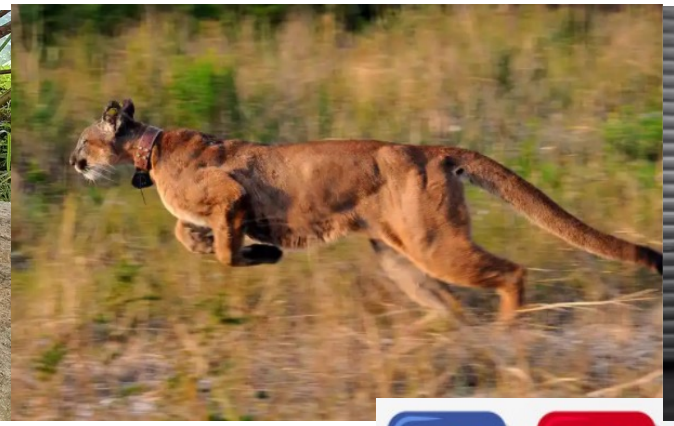
Content Types

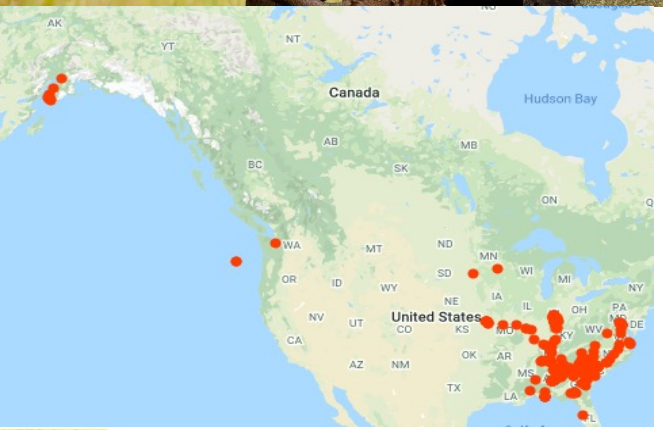
What is a sensor

- A device which detects or measures a physical property and records, indicates, or otherwise responds to it.
- A device, module, machine, or subsystem whose purpose is to detect events or changes in its environment and send the information to other electronics
- Exposed to information that would be **of significant value** if collected, processed and integrated into a Common Operating Picture; hence, the concept of “Every Soldier is a Sensor

DIFFERENT TYPES OF SENSORS





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Presentation format	Widescreen
Template	
Status	Add text
Categories	Add a category
Subject	Specify the subject
Hyperlink Base	Add text
Company	US Army

Related Dates

Last Modified	Today, 8:56 AM
Created	Today, 8:17 AM
Last Printed	

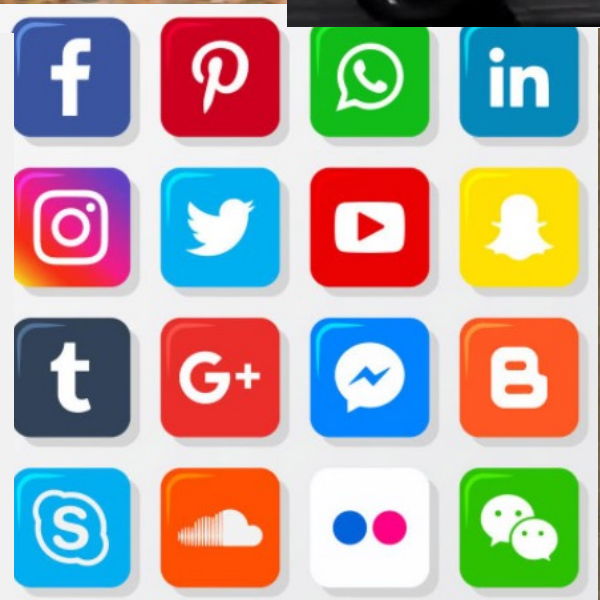
Related People

Manager	Specify the manager
Author	Antill, John R CIV USA CIV NETCOM
	Add an author
Last Modified By	John Antill

Related Documents

Open File Location

Show Fewer Properties



Fresh food.
Low prices.

7265 HWY 64
901-465-0681
Your cashier was ELIZABETH

RX PHARMACY	NP 10.00 9
KROGER PLUS CUSTOMER	*******6807
TAX	0.00
**** BALANCE	10.00

TN 38060
VISA Purchase
**********0783 - SWIPED
REF#: 045043 TOTAL: 10.00

VISA	10.00
CHANGE	0.00

TOTAL NUMBER OF ITEMS SOLD = 1
04/11/19 03:42pm 462 300 93 511
****
March Fuel Points Remaining = 158
Points Expire 4/30/19 and do not
combine with current month total.
****
Fuel Points Earned Today: 50
Total April Fuel Points: 152
This Months Points Expire 5/31/19
Details at: www.Kroger.com/Fuel

Annual Card Savings $148.08
****Kroger Community Rewards****
At your request, Kroger is donating to
20/20 Memphis
www.kroger.com

What is the cost of sensors

- 2004 the average cost of sensors was $1.30 and in the year 2020, it is expected to come down to **$0.38**. With the decrease in the cost of sensors, now we can collect more data and can make more intelligent decisions at a lower cost.

- Collar for Animals
  - $350 Standard VHF Collar
  - $650 for Anti Snare Collar
  - $3337.79 for GPS Collar

Why do we need to care about sensors

- What data are they collecting
- What is the tagging process
- Can we limit the sharing of the data
- What are they showing
- What happens if they are leaked

Sensor Needs

Humans basic senses	5
Humans all senses	14
Human–made sensors: parameters sensed	100s
Human-made sensor varieties sold	1,000,000
Human-made sensor patents	8,400,000
Human-made sensor google results	1,290,000,000

IDTechEx Research

Use of Sensors

- Good
  - Conservationists use GPS to do things like monitor the movements of wild horses and figure out the migration habits of songbirds (with the help of wee backpacks). Radio tagging helps conservationists track the social relationships of lions in Uganda and will soon be used to let scientists monitor migrating birds, bats and turtles from the International Space Station.

- Bad
  - Attempt—possibly by a poacher—to hack into GPS data showing the location of a Bengal tiger and wildlife photographers' use of VHF receivers that pick up radio signals to figure out the locations of tagged animals in Banff National Park

Loyalty Programs

- Loyalty programs, or rewards programs, are created by **businesses to reward repeat customers**. Using mobile apps, brands can develop ways for consumers to earn exclusive deals and discounts. A good loyalty program can improve user engagement, build brand recognition and increase sales
- Rewards members spend three times as much generating up to 70% of sales.
- Target can predict pregnancies 25 indicators

Army Databases

- More than 150 different databases
- Intelligence, Human resources,
- Data for all classifications
- Controls what is seen

Sensors are Everywhere

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  - Master of Certified Knowledge Management
  - Certified Knowledge Manager
  - CKS Knowledge Retention
  - CKS Data Architecture