

WEBINAR:
**IOT DEVELOPMENT: OPPORTUNITIES
AND CHALLENGES**

TIME: 04:45 - 05:15 PM

DATE: 17th JULY 2020

HOSTED BY



IndiaTechnologyWeek
@Home 2020



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Register at: www.indiatechnologyweek.com

Outline

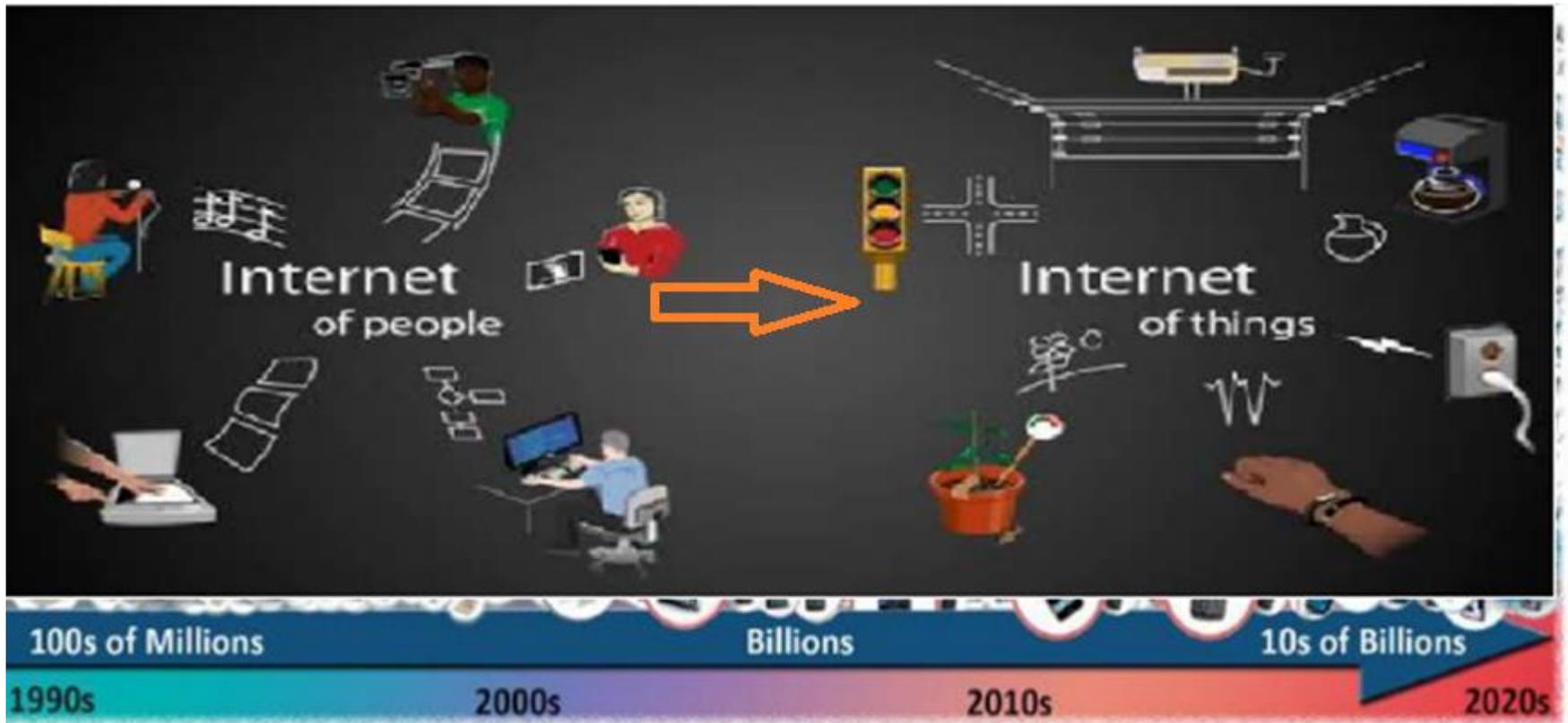
- ❑ Overview of IoT
- ❑ Opportunities
- ❑ Research Challenges
- ❑ Key digital trends shaping the future
- ❑ Q & A

Overview of IoT

INTRODUCTION



INTRODUCTION



The Smart World of IoT

- Enable everyday objects **internet connectivity**.
- These objects are embedded with **sensors, electronics, software, actuators and network connectivity** that give them the ability to exchange data.

How Does This Impact You?

- The new rule for the future is going to be, "Anything that can be connected, will be connected."
- But why on earth would you want so many connected devices talking to each other?
 - Communication
 - Control and Automation
 - Cost Savings

Opportunities

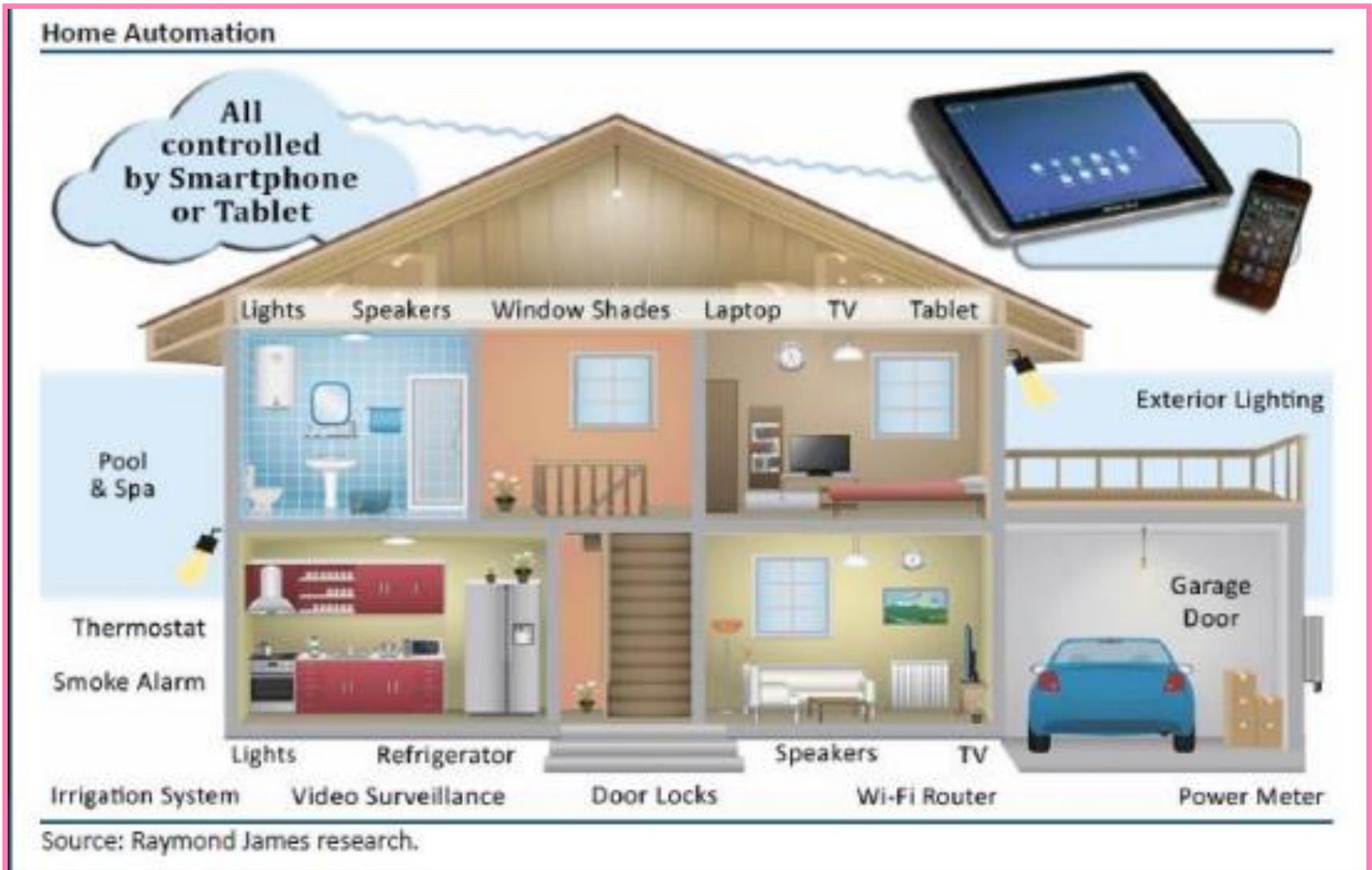
Looming Opportunity: IoT

-  **Consumer**
 - Smart home control (lighting, security, comfort)
 - Optimized energy use
 - Maintenance
-  **Retail**
 - Product tracking
 - Inventory control
 - Focused marketing
-  **Medical**
 - Wearable devices
 - Implanted devices
 - Telehealth services
-  **Military**
 - Resource allocation
 - Threat analysis
 - Troop monitoring

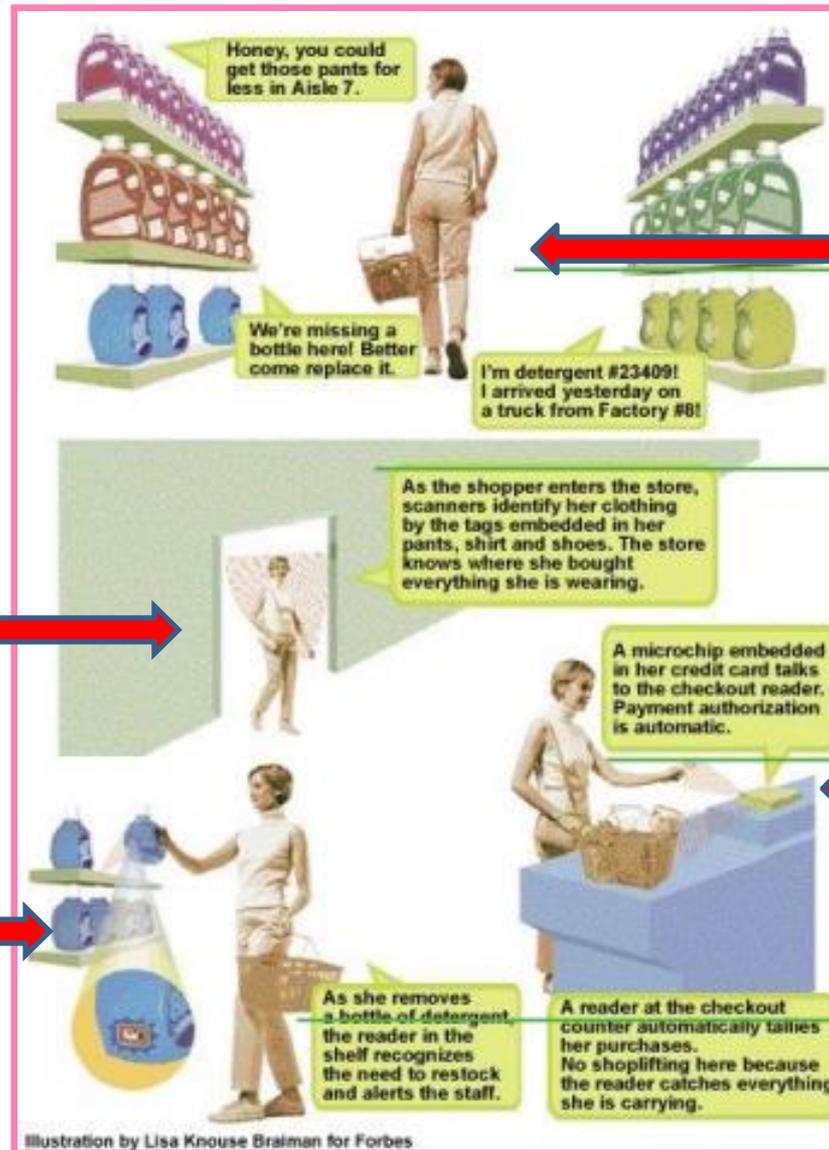


-  **Industrial**
 - Smart Meters
 - Wear-out sensing
 - Manufacturing control
 - Climate control
-  **Automotive**
 - Parking
 - Traffic flow
 - Anti-theft location
-  **Environmental**
 - Species tracking
 - Weather prediction
 - Resource management
-  **Agriculture**
 - Crop management
 - Soil analysis

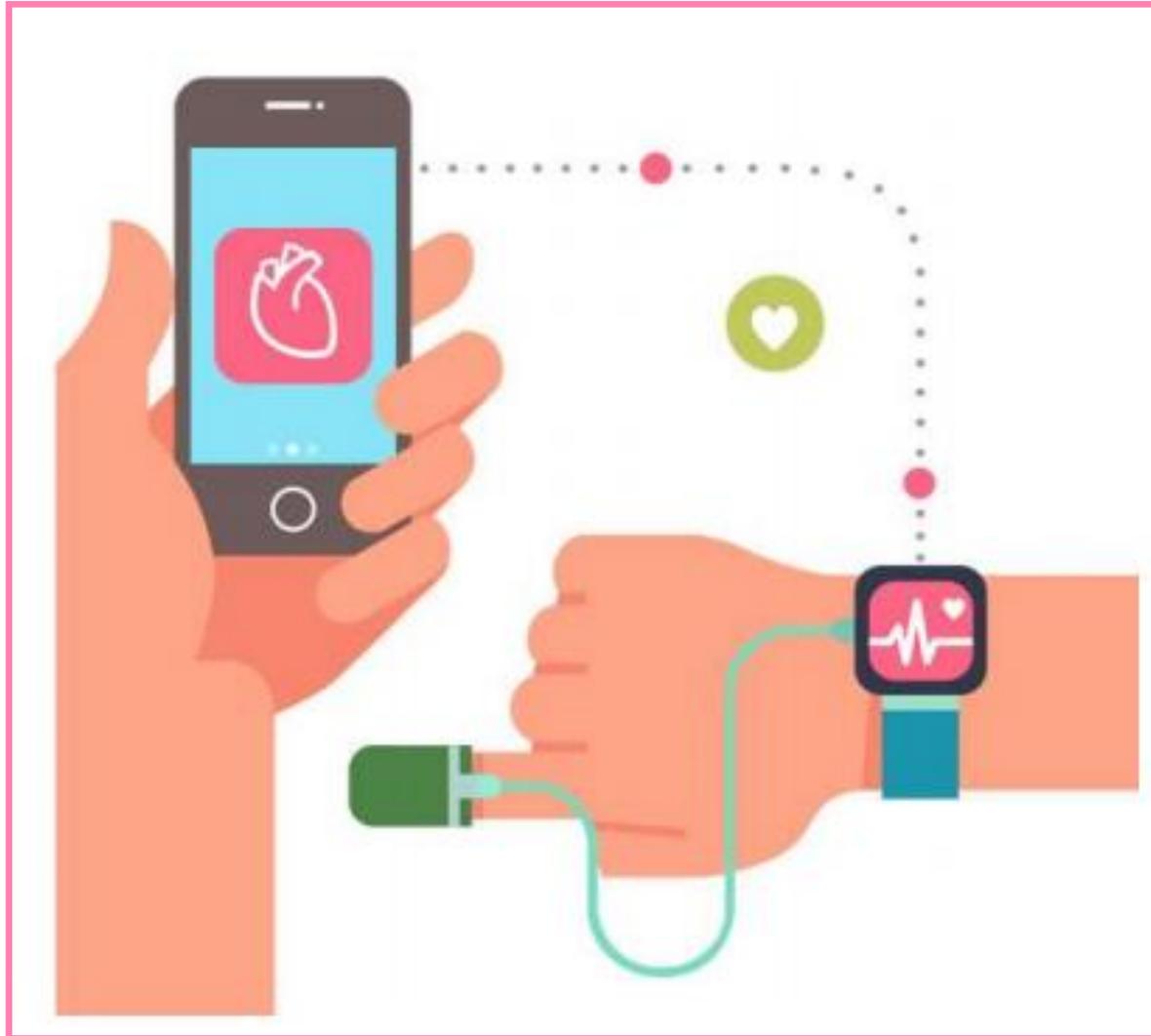
Smart (Intelligent) home



A Futuristic Application: Shopping



Scenario: Health Care



Transportation



IoT Research Challenges

Challenges

- IoT is complex.
- Connectivity is crucial.
- Highly power consuming.
- Technological Standardization in most areas are still remain fragmented.
- Managing and fostering rapid innovation is a challenge for governments.

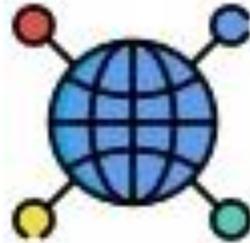
Challenges

- Is it safe? Can the internet of things be secured?



Key digital trends shaping the future

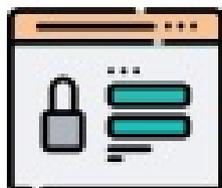
1. The power of connectivity and IoT's growth



1

The power of connectivity
and IoT's growth

2. IoT security trends: raising security concerns on the table



2

Raising security
concerns on the table

3. Blockchain technologies shaping the future of IoT



3

Blockchain technologies
shaping the future of IoT

4. 5G networks across the industries

- 5G mobile technologies provides faster and far more **reliable connectivity**, which encourages industries to transform the manufacturing and business processes accordingly.
- Together, IoT and 5G are establishing an infrastructure for **smartphones and tablets, as well as wearables, medical devices, and vehicles.**

5. Empowered edge computing in IoT

- **Edge computing** is definitely one of the key industrial IoT trends in 2020.
- In 2020, this pair of technologies is moving to the forefront.

Final Thoughts

THANK YOU