The Internet of Things

PAST, PRESENT & FUTURE

Introduction

WWW.MAGICLOGIX.COM

ABOUT MAGIC LOGIX

- Founded 2004
- Integrated Marketing Agency
- INC 500 List of America's Fastest Growing Companies
- Web Design/Development, Search, Social, Marketing Automation, Ecommerce
- Only agency in US partnered with **Marketo, Drupal** and **Magento**

ML Seal of Quality

Marketo

Drupal

Magento

Definition

INTERNET OF THINGS: WHAT IS IT?

- Term coined in 1999 by Kevin Ashton, founder of Auto-ID Center at MIT
- Exact meaning can be difficult to lock down
- In short, it's about giving people greater access to computer intelligence
- Entails a world of smart devices connected to the internet to make our lives easier

IN SIMPLEST TERMS, IOT is the quickly approaching scenario in which a wide range of physical objects that we encounter in everyday life will be connected to the internet and will be able to communicate with other internet connected devices.

IOT History

LET'S TAKE IT BACK TO THE 80'S

- A Group of students at Carnegie Mellon University wrote a program that allowed them to track whether storage columns of a Coca-Cola machine in their building were empty or stocked
- Programmers could use computers to check status of the machine, how long since columns had been empty
- This ensured them not only a soda, but one in machine long enough to keep cold

Why not try this with beer coolers instead? It was college, after all…

IOT History (Continued)

BRING ON THE 90’S

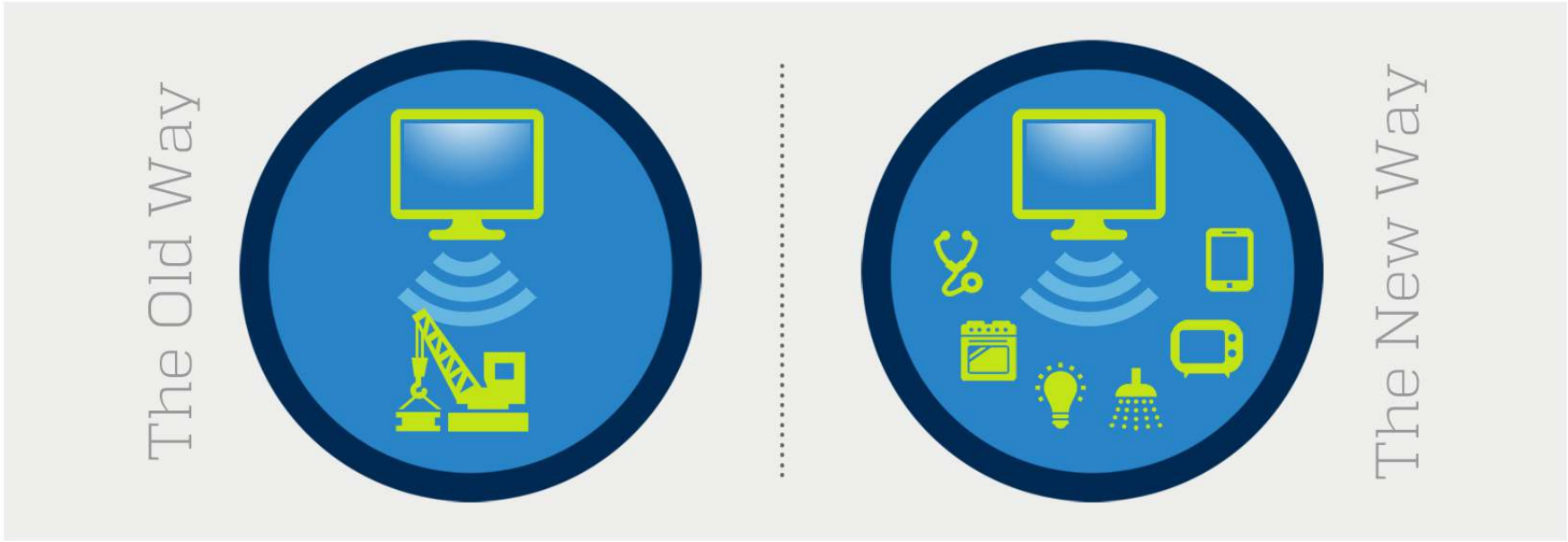
- **1999:** American computer scientist Bill Joy envisions Device to Device communication as part of “Six Webs” Framework
- After term “Internet of Things” coined by **Kevin Ashton,** school of thought leads to objects being equipped with identifiers so computers could manage and inventory them

This leads to achievements in tech such as:

1. Near Field Communication
2. Digital Watermarking
3. QR Codes

IOT: Today

WHERE WE'RE AT CURRENTLY



Machine to machine information transfer in manufacturing and utility provisions

Smart Everything: Incorporation of additional smart technologies across everyday life

IOT: Today (Continued)

NEW WAY OF IOT IS CONSTANTLY EVOLVING

- Through expansion of wireless internet infrastructure and increase in address space generated by iPv6, nearly any device or object can be assigned an **IP address** and connected to the internet

  - **IPv6: latest version of internet protocol**

    - Developed by Internet Engineering Task Force
    - Intended to replace IPv4, which currently carries more than 94% of internet traffic worldwide

- In the current state, the internet of things really centers around **human augmentation**

IOT: Today (Continued)

HUMAN AUGMENTATION: AN EXAMPLE

- Tim O'Reilly, who popularized the term "Web. 2.0" in 2004 has a perfect example of human augmentation:
  - Uber: utilizes location awareness
  - Uber driver: augmented taxi driver with real time location awareness
  - Uber passenger: augmented passenger, who knows when the cab will show up

In this instance, the Internet of Things is about the construction of new data points within the range of a discrete set of known data points within computer hardware and software into different possibilities to make our lives easier

IOT: Today (Continued)

SMART DEVICES & TECHNOLOGY: A FEW EXAMPLES

- **Nest Learning Thermostat** - Learns schedule, programs itself and is controlled from your phone
- **Smart home security systems** - Monitor home from smartphone, lock doors, set alarms and more
- **LG Smart Oven** - Control cooking remotely from your smartphone and send recipes to your range
- **Siemens Connected coffee maker** - Push a button on your phone, and coffee is at the ready
- **Teddy the Guardian** - Stuffed animal made for hospitals with hidden sensors that monitor a child's heart rate, oxygen levels and body temp
- **Smart Watches (ie Pebble)** - Works with android and iOs, gives you access to text messages, email and more and can connect with Bluetooth technology

IOT: The Future

WHAT'S NEXT FOR THE INTERNET OF THINGS?

- Continual interconnectivity
- Environments responding intelligently to our every move
- Intimate data:
  - Through smart phones, wearables and more we can analyze our own data in its purest form
  - Monitor heart rate, mood, stress, search activity and more

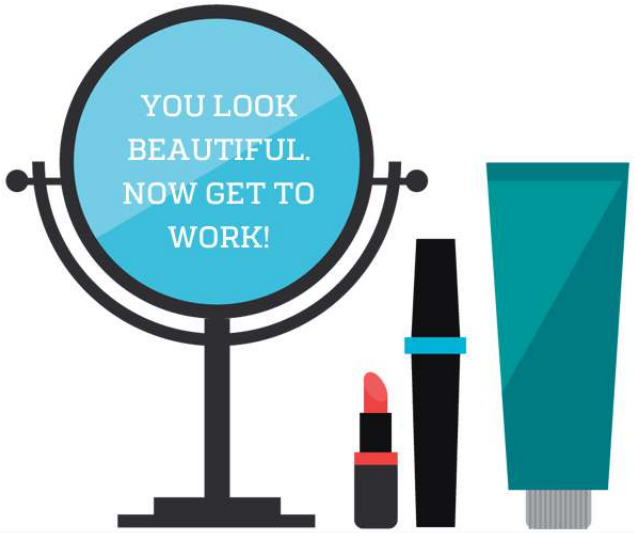
- This data leads to health alerts, personal preferences, traffic routes, weather and beyond; it's essentially having intelligence of our surroundings

IOT: The Future (Continued)

ADVANCES IN MESSAGING

- Screens, Screens & More Screens: Messaging can come from anywhere
  - Mirrors (conveying weather when getting ready)
  - Clocks (letting us know when we're running rate)
  - Stovetop (recipes and streaming instructional video)

- This can lead to an advancement in advertising
  - Suggestions offered to consumers via algorithms to screens or wearables to aid in suggestion and convenience



IOT: The Future (Continued)

PLANNING FOR THE FUTURE

- Digital isn't going away, this is the next logical step for mankind
- We need to pay attention on how information is consumed and absorbed, not just on the channels that we receive it
    - As we so often find, everything is about context, not just content
- Prepare to filter out unnecessary data and information and only receive pertinent information related to our behavior and lifestyle
- Sit back and enjoy an easier lifestyle thanks to **The Internet of Things**


QUESTIONS?

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INTEGRATED MARKETING AGENCY