*the* Internet *of* Things

*Roadmap to a Connected World*

PROFESSIONAL EDUCATION

April 12 – May 24, 2016

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MODULE | Introduction

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# What is IoT

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# WHY AND WHAT

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# TESLA'S OVER-THE-AIR FIX: BEST EXAMPLE YET OF THE INTERNET OF THINGS?

JS WOHLSEN    BUSINESS    01.14.14    6:30 AM

# HAT GOOGLE REALLY GETS JT OF BUYING NEST FOR $3.2 LLION

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# THE MARKET IS EXPECTED TO BE ASTRONOMICAL
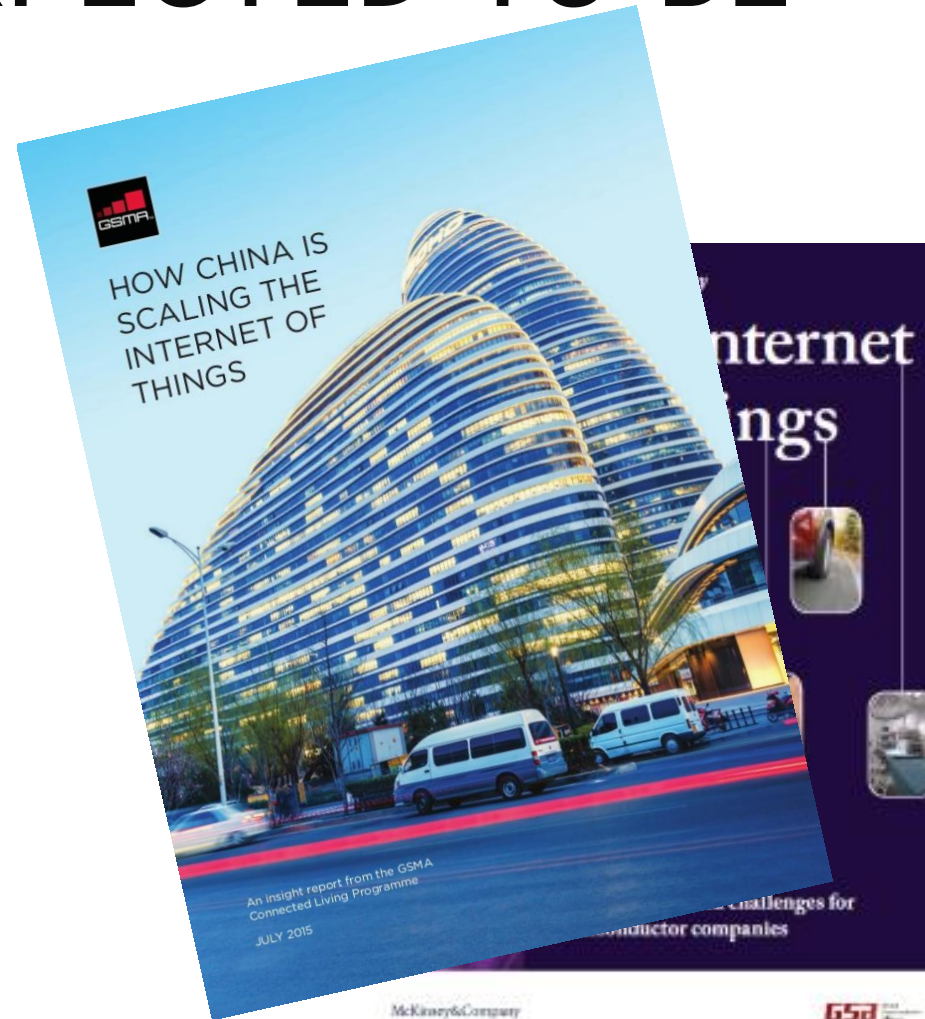
**2015:**
- 10 billion connected things
- $1.9 billion from IoT services

**2020:**
- ABI: 250,000 connected cars
- IDC: $7 billion from IoT services
- Gartner: $300 billion from IoT products
- IDC: Global IoT market $7.1 trillion
- ABI: 40 billion IoT devices

**2035**
- GE: $10-15 trillion added to GDP
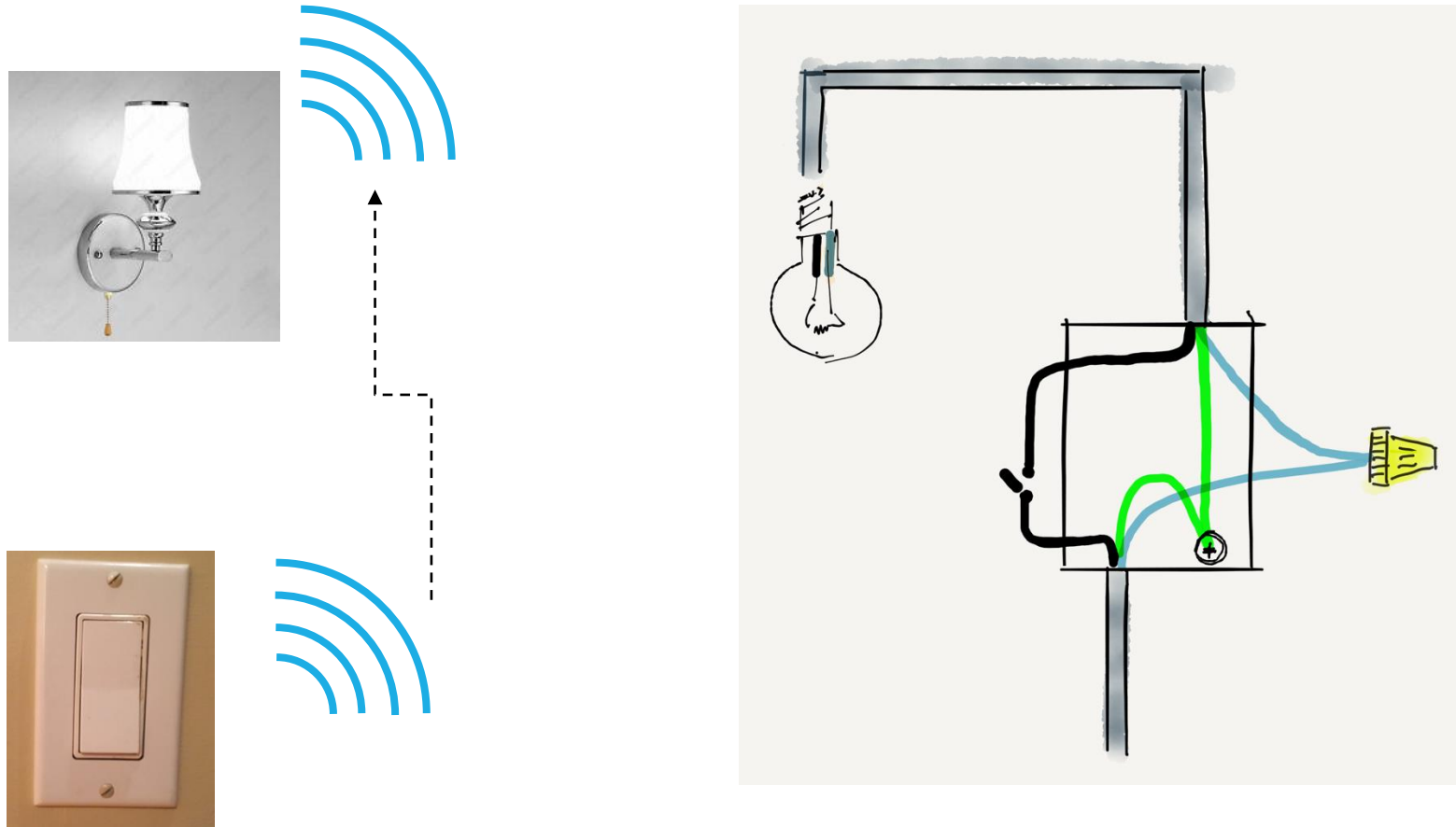- Cisco: $19 trillion
- ABI: 450 million IoTcars



HOW CHINA IS SCALING THE INTERNET OF THINGS

An insight report from the GSMA Connected Living Programme

JULY 2015

McKinsey&Company

http://www.eetimes.com/author.asp?doc_id=1326597

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# WHAT IS IOT?

# IS THERE ANYTHING THAT WON'T CHANGE?

| Cities | Factories | Transportation |
|---|---|---|
| Buildings | Machines | Airports, ports, stations |
| Homes | Robots | Roads, tracks |
| Kitchens | People | Cars, trains, planes |
| Appliances | Supply Chain | Traffic, emissions |
| Security | Safety | Parking |
| Home Health | Security | |

# YOU CAN PLAY IT OUT IN ANY INDUSTRY

Hospitals

Equipment

Staff

Patients

Ambulances

Trauma Centers

Medicines

Sports

Equipment monitoring

Ball tracking

Player tracking

Performance telematics

Heavy Industries

Oil and Gas

Mining

Shipping

Construction

Manufacturing

Power

Water

# Ford: Self-driving cars will be aimed at u

Chris Woodyard, USA TODAY    9:04 a.m. EST December 10, 2015



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(Photo: USA TODAY)

WEST HOLLYWOOD, Calif. — Instead of finding universal acceptance, self-driving cars will be better suited to cities and countries that are more urban and congested, Ford Motor predicts in a report released Thursday.

Even then, some people in those self-driving cars might not know how to fill the extra time they just acquired. Cars serve the conflicted dual role of "productivity capsule" and as "sanctuary," says Sheryl Connelly, the automaker's trends spotter who put the report together.

The report also finds that simplicity and practicality will play a bigger role in consumers' lives, including the reduction of waste and redundancy. There will be less emphasis on acquiring more stuff. People will live longer, more active lives.

Automakers spend a lot of time trying to peer into the future, such as Ford did with its 2016 Trends report. Cars take years to develop. Missing a trend can lead to expensive mistakes if society has changed by the time a new model rolls out.

When it comes to the future, the auto industry is trying to gauge the impact of self-driving cars. While the underlying technologies that make them possible are arriving piece by piece, some automakers have pegged 2020 as the year when autonomous driving will be truly possible.
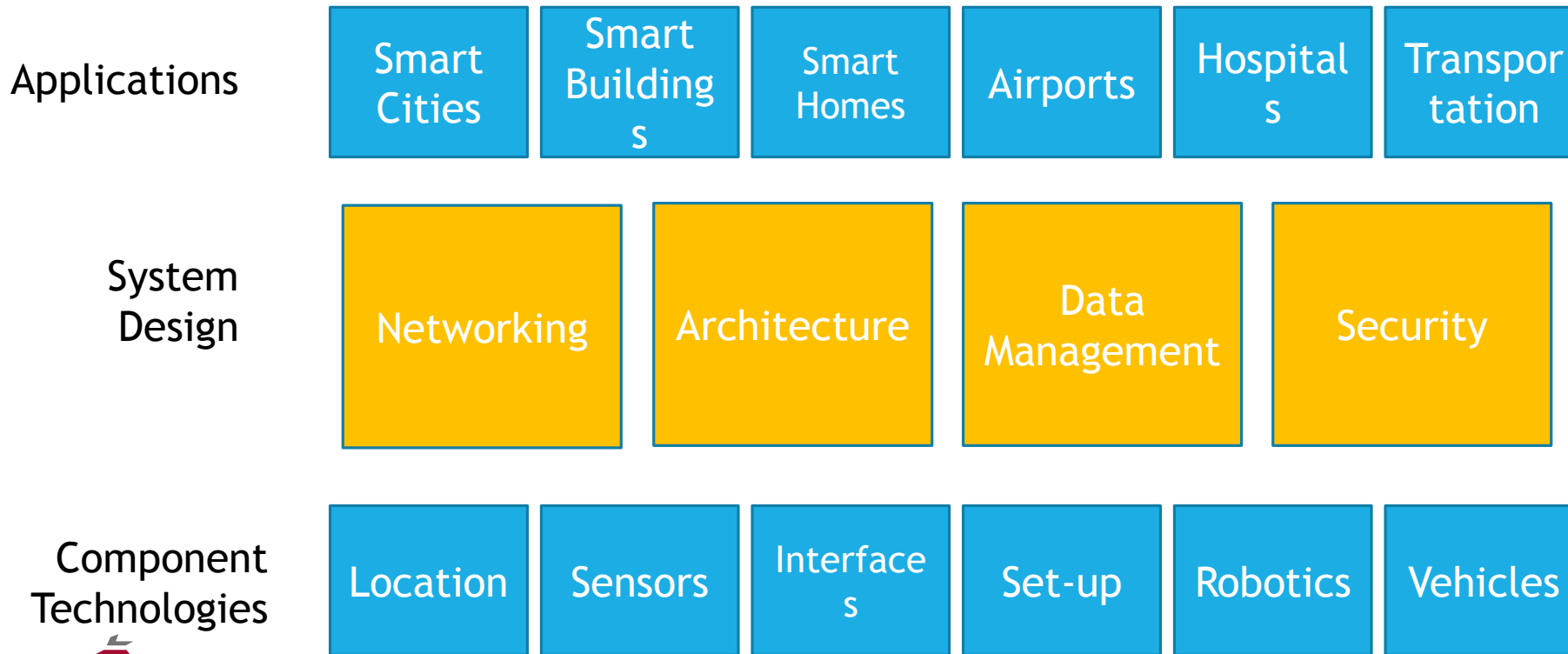
Connelly, Ford's global trend and futuring manager — yes, that's her title — says don't expect self-driving to catch on everywhere. "Autonomous driving makes sense in pockets of the world," says Connelly, who came to hotel suite near Los Angeles to preview the report with reporters.

Some 84% those living in notoriously crowded India say they can see themselves buying a self-driving car, the report says, citing global survey data from BAV Consulting. Only 40% of Americans envision it.

Part of the issue, she says, is that people have to imagine how they would occupy themselves if their cars did all the driving. About six out of 10 say they can "easily imagine" how they would use extra spare time while traveling.

Cars are increasingly becoming pods for productivity in which people try to accomplish as much digitally as they can while traveling, but that clashes with another trend toward "mindfulness" in which a yoga-craving population

GM off ignition
Dec 10, 7

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# HOW TO THINK OF IOT

**Applications**

| Smart Cities | Smart Buildings | Smart Homes | Airports | Hospitals | Transportation |
|---|---|---|---|---|---|

**System Design**

| Networking | Architecture | Data Management | Security |
|---|---|---|---|

**Component Technologies**

| Location | Sensors | Interfaces | Set-up | Robotics | Vehicles |
|---|---|---|---|---|---|

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# THANK YOU!

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