IBM Security

Intelligence. Integration. Expertise.

IBM

From **No** to **Know:**
Privacy, Meet Innovation

Cindy E. Compert, CIPT/M
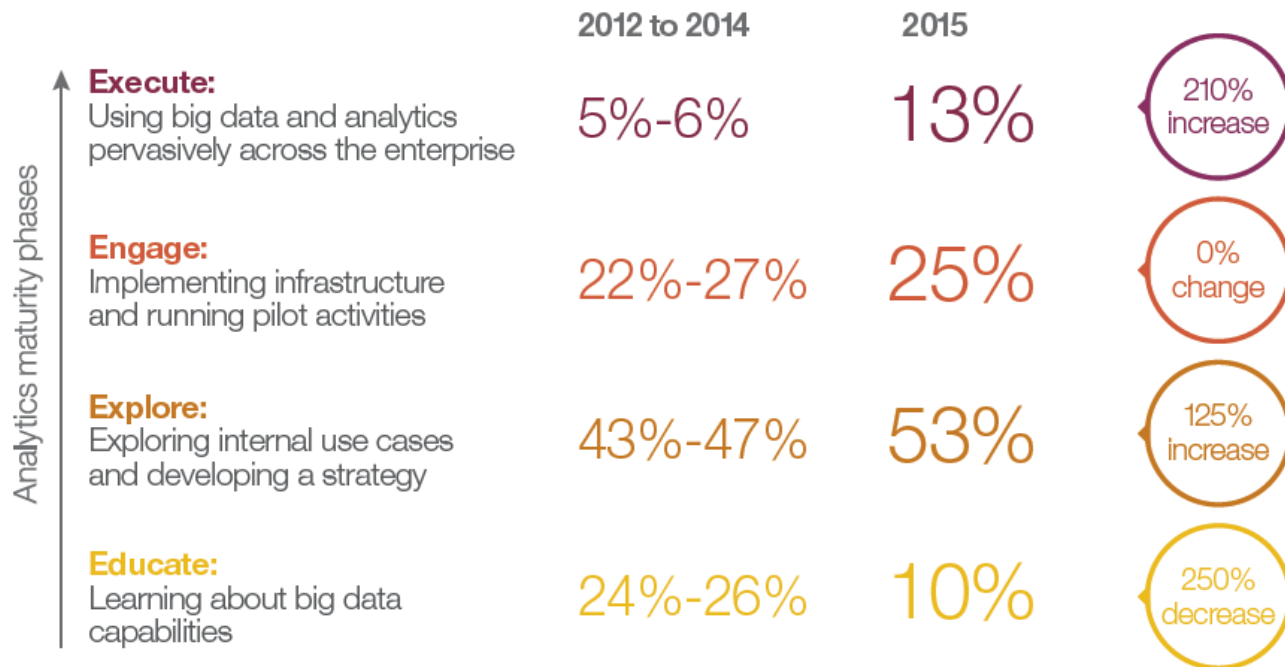CTO, Data Privacy
IBM Security
@CCBigData

NO!

Big Data, Analytics, and Cognitive

Big Data Grows Up

The percentage of organizations using big data technologies pervasively within their enterprise has more than doubled in the past 12 months

Analytics maturity phases

	2012 to 2014	2015	
Execute: Using big data and analytics pervasively across the enterprise	5%-6%	13%	210% increase
Engage: Implementing infrastructure and running pilot activities	22%-27%	25%	0% change
Explore: Exploring internal use cases and developing a strategy	43%-47%	53%	125% increase
Educate: Learning about big data capabilities	24%-26%	10%	250% decrease

Source: IBM Institute for Business Value 2015 Analytics research study; survey administered in summer 2015 by the Economist Intelligence Unit. n=1226 pre-qualified respondents.

Trick or Treat Candy Purchasing Index
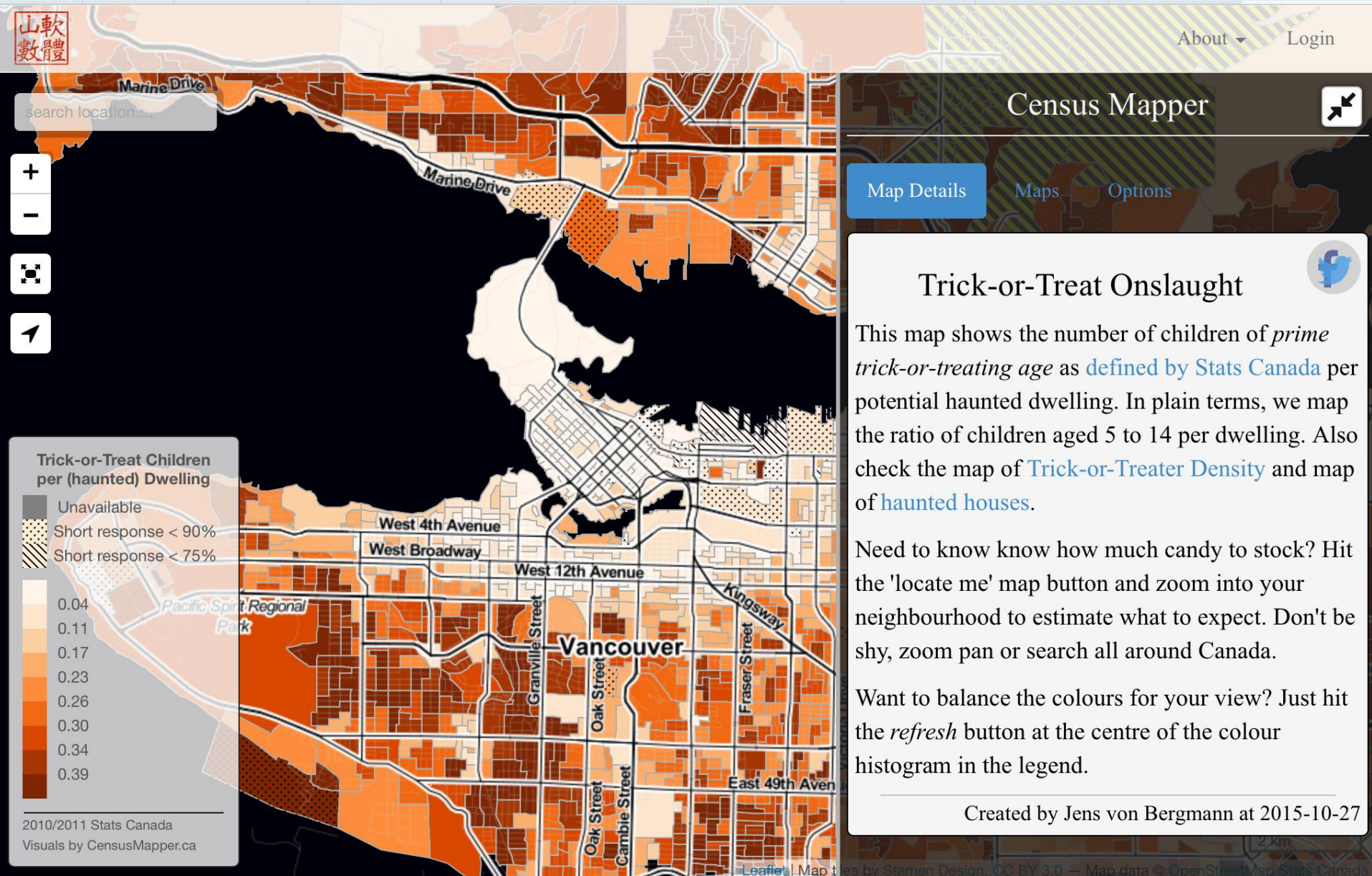
Analytics that Learn

HEALTH	FRAUD	EDUCATION
Watson Oncology- choose cancer treatment therapies based on a tumor's genetic fingerprints	**Domo Semo Sancus- SafetyNet background checking to vet investor candidates and quantify risk**	**Cognitoys- Toy Dino uses cognitive-enabled learning for customized interaction**

Watson Personality Insights: http://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/personality-insights.html

A Data Lake vs. a Data Reservoir

Data flows in "naturally" and just sits there

Built to extract value from the data

Data without Analytics is just a liability

Is it Cool, Convenient, or Creepy?

Cloud, Mobile and IoT: Borderless Pervasive Data

1 in **3**

Fortune 1000 employees
upload corporate
data to cloud apps

25 billion

IoT devices by 2020

Where's my data?

67%

of children's apps & web
sites collect personal
information

IBM Security

Pervasive Data- Driven by Mobile, Cloud & IoT

'KNOW' Drivers- Innovation enablers:
- Productivity
- Cost
- **Pervasive & comprehensive data**

'NO' Drivers- Innovation Inhibitors:
- Sensitive data exposure concerns and risks
- Visibility & Control
- Data transfers & location
- **Pervasive & comprehensive data**

Security Controls for Privacy

On-Premise · **Hybrid** · **Cloud**
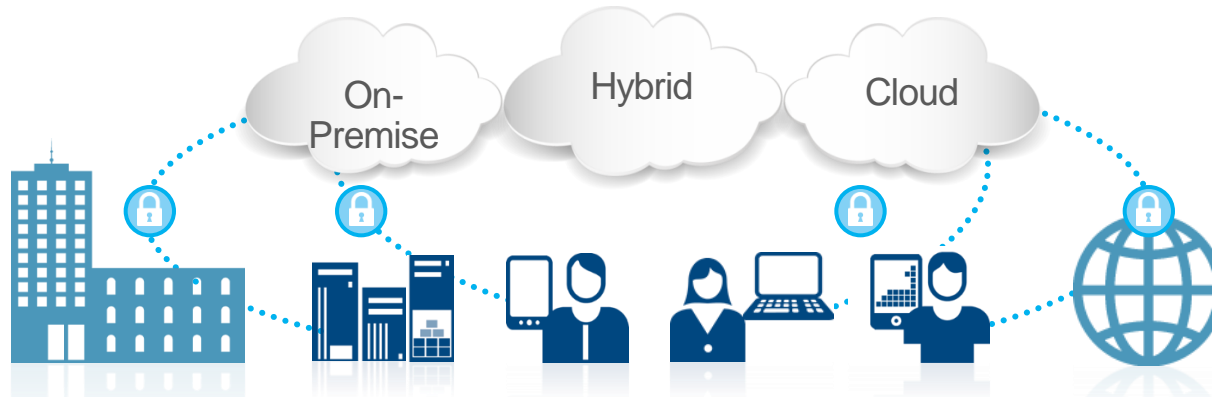
Manage Access

Enforce Separation of duties , Safeguard privileged user access, ,Applications, and devices

- Identity Governance
- Privileged Identity Management
- Mobile Data Management

Protect Data

Identify vulnerabilities Prevent attacks targeting sensitive data

- Data Encryption, Masking, Redaction
- Security Intelligence
- Data and File Activity Monitoring
- Application and Mobile App Scanning

Gain Visibility

Monitor data and applications: Security breaches Compliance violations

- Security Information and Event Monitoring
- Real-time alerting and blocking
- Cloud access and risk assessment

Optimize Your Privacy and Data Security Program
Deliver a consolidated view of your security operations

- Privacy Program Management
- Security & Privacy Risk and Performance Metrics

Where Next? Data Classification
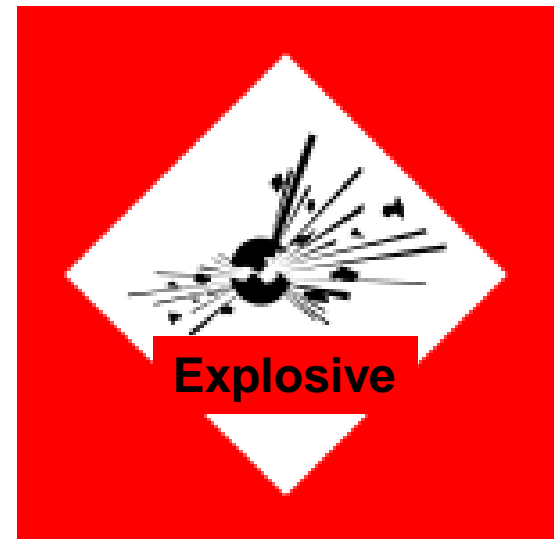
Non-flammable Non-toxic
2

Spontaneously Flammable When combined with water
4

Health Hazard

Toxic

Explosive

Digital Identity:

Privacy & Security at the Authentication Layer

Authentication without identification

More info (11/20/15 webinar): https://ibm.biz/identitymixerwebinar

Are you 'You'?: Digital Guardian

Cognitive approach to protecting information

Privacy-Based Access Control

Build a Bridge

Do your homework and Keep Score

Key messages for sound public policy

- **Enable data innovation**

- **Focus on risks to people**

- **Protect privacy through principles, not prescription**

- **Accommodate diversity**

- **Help organizations manage diverse legal systems**

- **Encourage organizations to demonstrate accountability**

KNOW