

# Cloud and Big Data

*Laura Colvine, IBM Cloud Strategy Leader UK & Ireland*





# “Big data” – the huge volumes of information generated by the planet.

## VOLUME

**12**tb  
Tweet data per day but rising!

## VELOCITY

**5** million  
trade events per second

## VARIETY

**350** billion  
meter readings per annum

*Identify potential fraud*

*Predict power consumption*

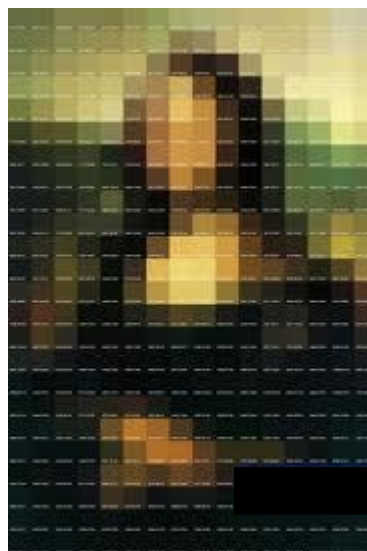


**665**tb  
Data per hospital in 2015

IBM analyzes  
**>\$100 billion**  
in commerce transactions a year in cloud

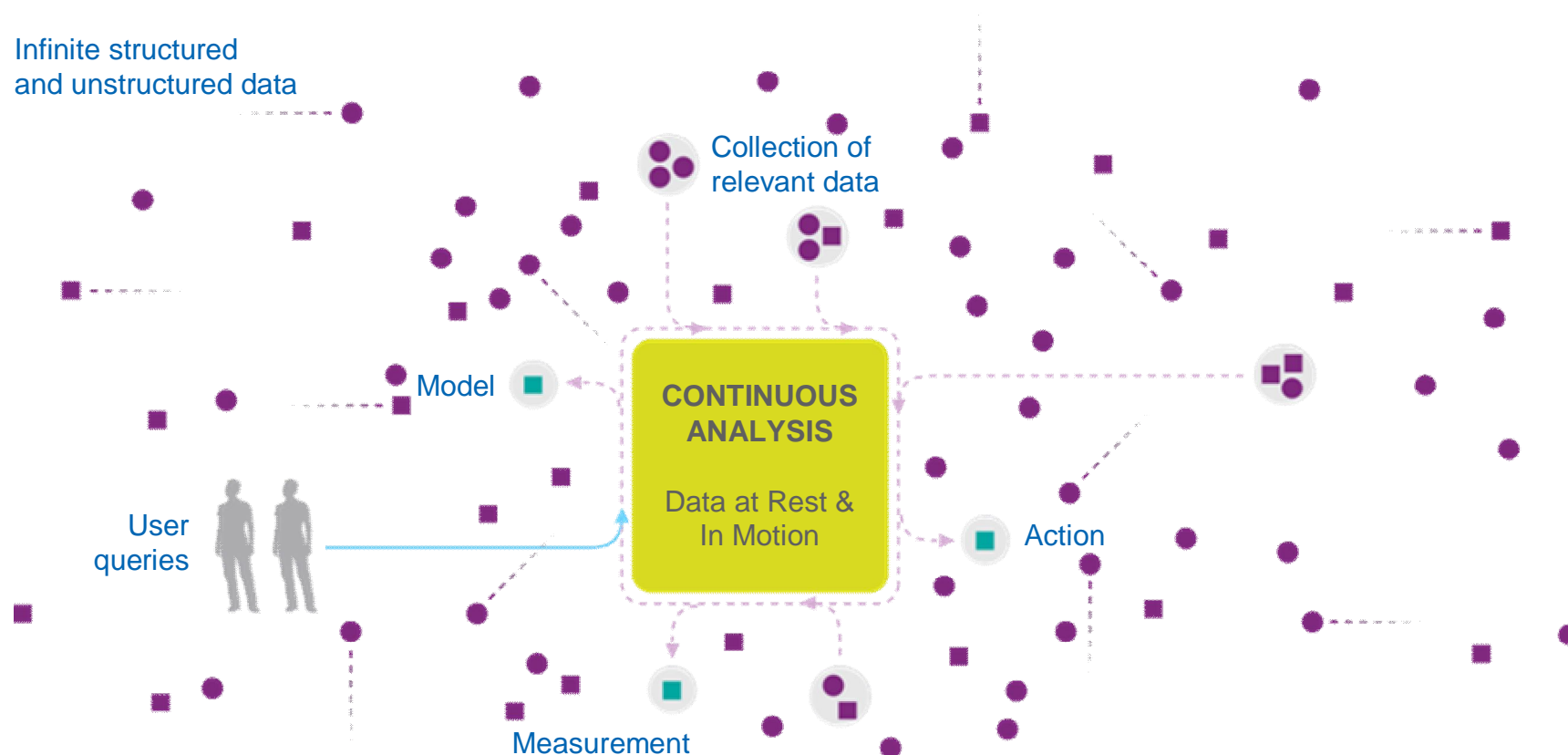
**80%**  
Of the world's data is unstructured

# The Point of Big Data - It is about more than simply a matter of size; it is an opportunity to find big insights.\*

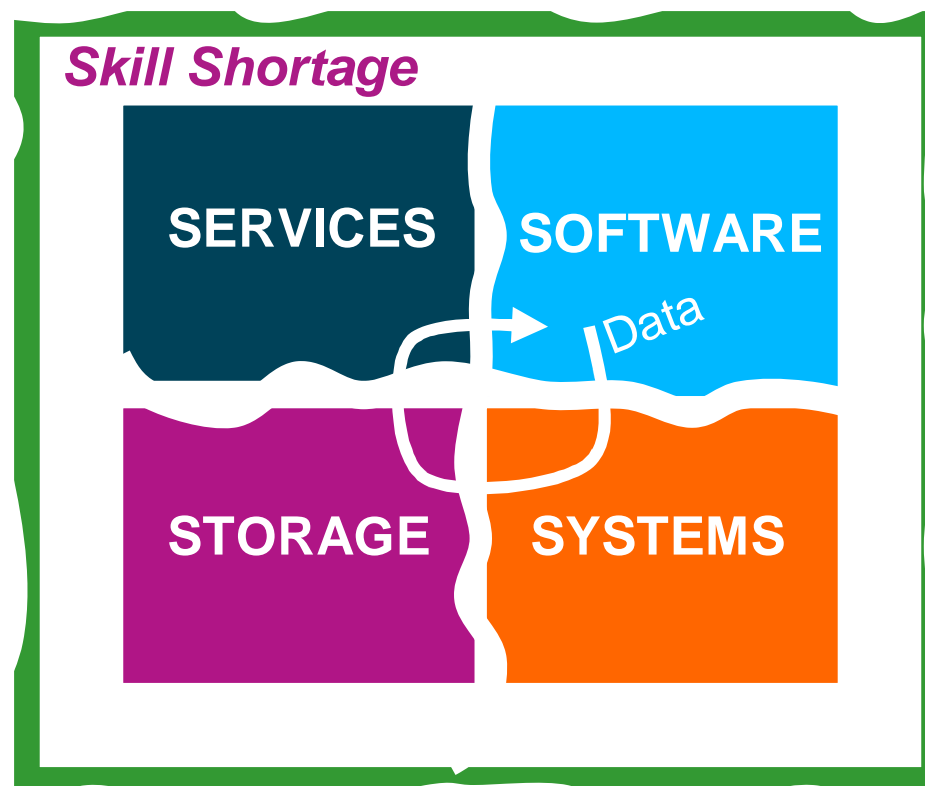


Highly flexible cloud platforms support data initiatives for pattern analysis, **non-obvious relationship assessment** and risk profiling.

# The key is removing noise from this high velocity, highly variable data to discover key insights while still relevant



According to Gartner, **85%** of Fortune 500 organisations will be **unable to exploit big data for competitive advantage** through 2015.



Companies are turning to Cloud based solutions to store, retrieve and make sense and use of data in any format, in any volume, in real time.

Align



organisation around  
information

Anticipate



see, predict and shape  
business outcomes

Act



with confidence to optimise  
service outcome

# Align

Deploy an information and big data cloud strategy that flows from your business strategy.



Science & Technology Facilities Council

**Daresbury Laboratory**

[http://www-01.ibm.com/software/success/cssdb.nsf/CS/STRD-8VLN2U?OpenDocument&Site=default&cty=en\\_us](http://www-01.ibm.com/software/success/cssdb.nsf/CS/STRD-8VLN2U?OpenDocument&Site=default&cty=en_us)

# Imagine the Possibilities of Analysing *All* Available Data - Joining up data across traditional silos and pooling resources

*Faster, More Comprehensive,  
Less Expensive*



*With common uses cases - Fraud,  
Threat Detection, Sentiment  
Analysis....*

## Where CLOUD meets Big Data

Manage at  
Scale

Need to Flex

Workload  
Agility

Rapid  
Response

Automation &  
Standardisation



Cities of all sizes use cloud to integrate data across city operations to help improve the delivery of citizen services.

**IBM Smarter City Solutions on Cloud**

Get started quickly to deliver exceptional service to your citizens

The diagram shows a central purple circle labeled "Intelligent Operations Center" connected to eight surrounding icons: a red circle with a white cross (hospital), a green circle with a white building (government), a purple circle with a white train (transportation), a teal circle with a white power line (utilities), a blue circle with a white water tap (water supply), a purple circle with a white shield (security), a pink circle with white people (social services), and a yellow circle with a white book (education).

<http://public.dhe.ibm.com/common/ssi/ecm/en/giw03021usen/GIW03021USEN.PDF>

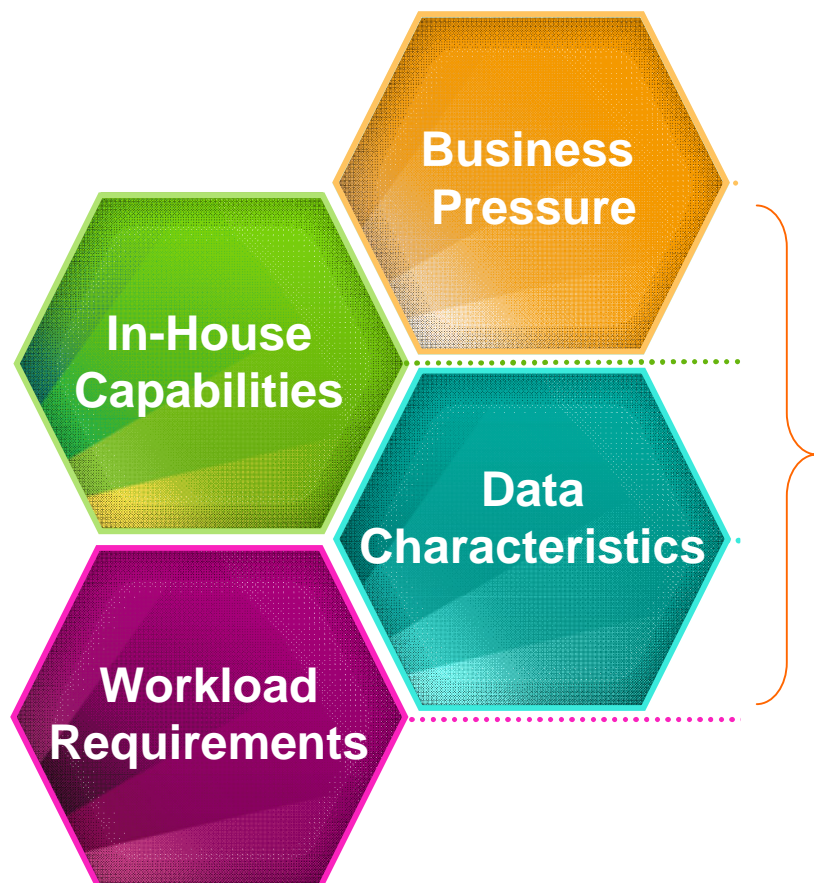


Rio de Janeiro cloud based data solutions **emergency response system planning.**

[http://www.ibm.com/smarterplanet/us/en/smarter\\_cities/overview/index.html](http://www.ibm.com/smarterplanet/us/en/smarter_cities/overview/index.html)

## Align

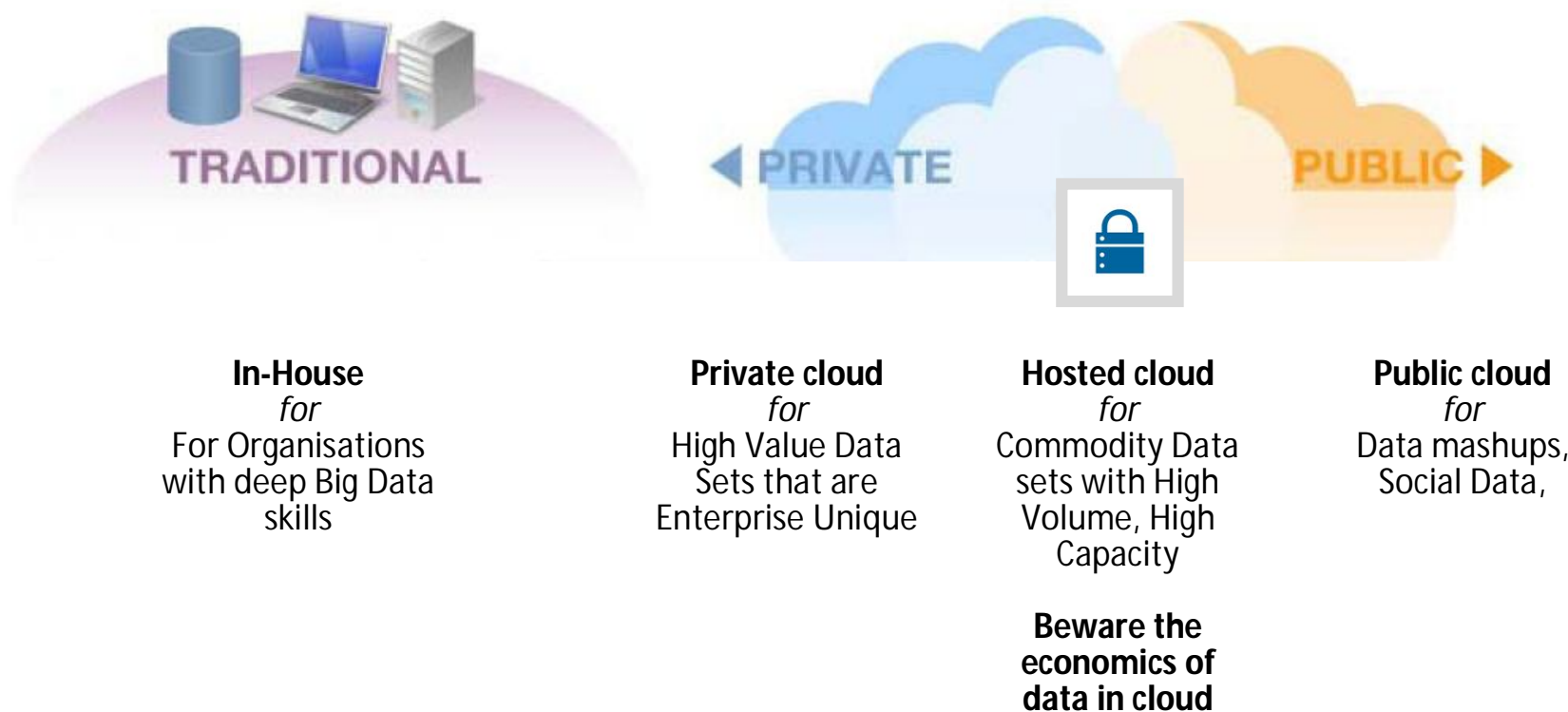
# Typical considerations for Cloud Based Big Data activities



*The challenge becomes one of integration, coexistence, and recognising what solution is best for a given data set, service outcome & workload.*

## Align

Determining your highly valuable data from commodity data will affect how you span on-premise and off-premise data workloads



# Anticipate

**Improve Services - See, Predict and Shape Outcomes**



## Anticipate

Companies get ahead by **extracting value** from the big data explosion

With Cloud PAYG flexibility –

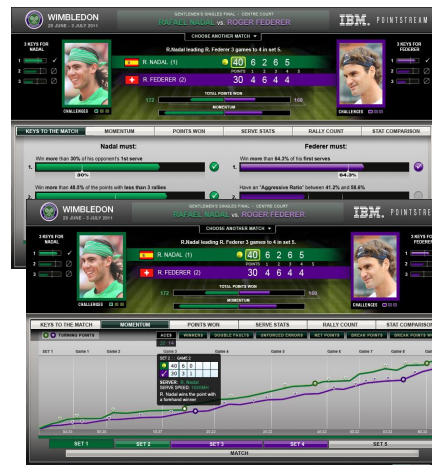
Detecting usable patterns and trends in the data generated.

- **Real time data and analysis**
- **Predicting outcomes**
- **Joining up information**

**Embedding past, present and future insights into your operations and processes**

Anticipate

*Real time data and analysis*  
 Cloud supports the data volumes, shift in customer experience and analytics at Wimbledon



Anticipate

*Predicting outcomes*

**Context-based services** are driving the next wave of cloud based data adoption



Analytics software applied to NEETs  
– Not in Employment, Education or Training.

Now on UK Gov Cloudstore

**Anticipate**

## *Joining up information*

### Stadiums in the Clouds



<http://public.dhe.ibm.com/common/ssi/ecm/en/mew03006usen/MEW03006USEN.PDF>

### Connecting Healthcare in the Cloud





# Act

**Smart enough to reason and return  
confidence-based responses for the  
next best action**



<http://www-03.ibm.com/press/us/en/pressrelease/38153.wss>

## Act

### *Big Data from the Archive*

Partnering for success - Cloud Big Data Services beyond Archive as a Service

- Award Winning Partnership between British Library & brightsolid
- To digitise every newspaper ever published in the UK
- Currently covers titles from 1710 -1950 and is approaching a **PetaByte of Data**
- >10,000 pages of full text searchable historical archive published online every day



**Act**

**Actionable Insight**

In today's marketplace, customers say they're not happy, companies must decide how to react - not later that day, or in an hour, but instantly

The value is in the speed and accuracy of response



\* Sourced from IBM CMO Study Infopic: [http://www-935.ibm.com/services/uk/cio/cmo/CMO\\_infographic\\_V12.pdf?ca=CMOstudypage](http://www-935.ibm.com/services/uk/cio/cmo/CMO_infographic_V12.pdf?ca=CMOstudypage)

**Social Data, Social Technologies and Mobile Computing are accelerating cloud adoption and shaping big data questions**

**Act**

*Listen, Learn, Adapt*

Navigating big data to uncover the right information is a key challenge.



Watson can pore through equivalent of 200m pages of data and formulate a response in 3 seconds



---

## **In Conclusion** What have we learnt from our Big Data cloud journey?

Winners in the era of cloud and big data will be those who unlock data assets to drive innovation, make real-time decisions, and gain actionable insights to be more competitive.

---

### **Plan an Information Agenda**

to align with your strategy and priorities

---

### **Align Your Information**

to govern the creation and use of an integrated set of accurate and relevant information

---

### **Apply Outcome Analytics**

to measure, anticipate and shape business outcomes