ISACA®
Trust in, and value from, information systems
San Francisco Chapter

The Future of Information: Challenges and Opportunities

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SAP

Back to Business

Why are we here?

“Six Big Trends”

1. Mainstream goes mobile
4. Data just wants to be mined
5. Social technologies remake enterprise apps
6. Business transformation becomes the big story

- Phil Wainewright, December 28 2010, ZDNet

Privacy Predictions

Mobile will overtake desktop/laptop as the top source of private data threat.

- In 2010, 10.9 billion mobile apps were downloaded

Insurance companies are discovered to be reviewing your social data.

Facial Recognition Tools 1.0 go mainstream

- Michael Fertik, December 31 2010, Reuters

Agenda

- Data explosion – more, different
- The need for information – more, faster
- Changes in technology
- Risks
- Opportunities
- Wrap-up

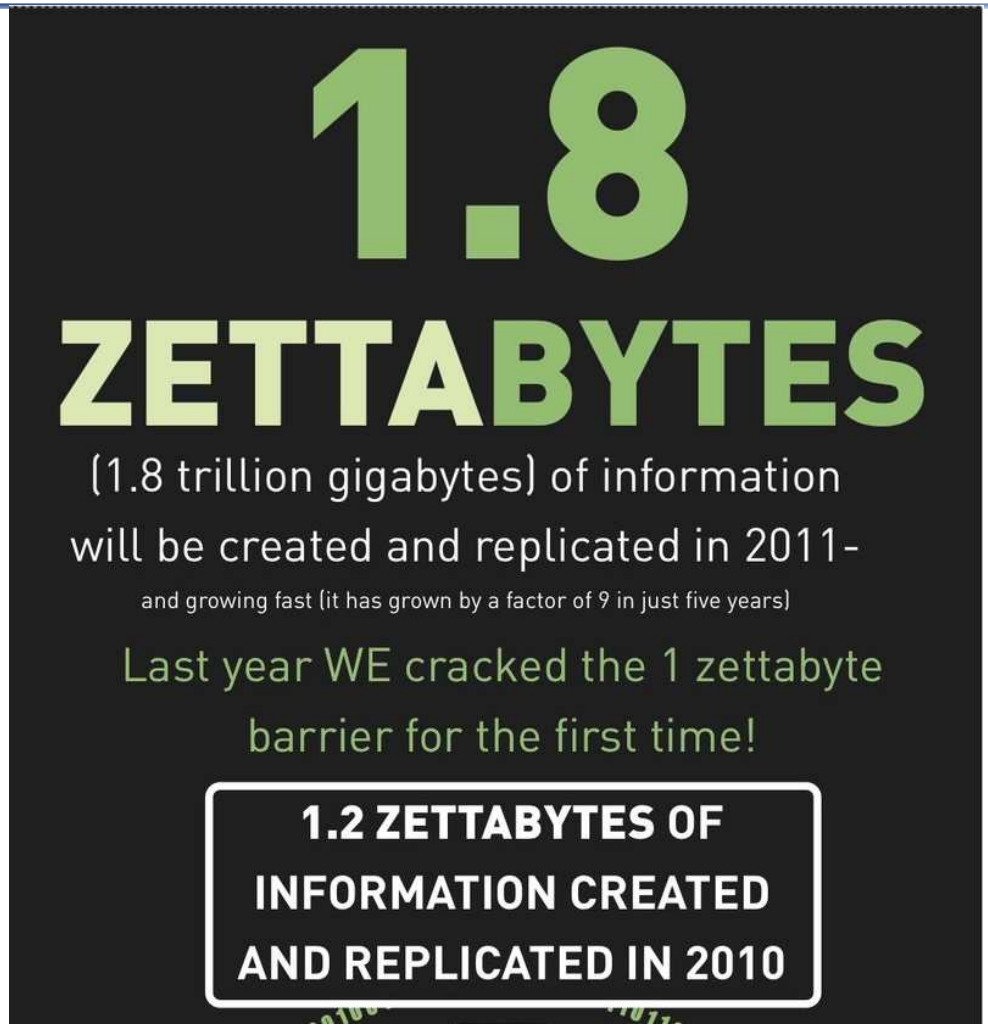
The data explosion

The data explosion

- 2005: 130 billion gigabytes
- 2010: 1227 billion
- 2015: 7910 billion
- “The rate of growth appears to be exceeding Moore’s Law.”
- “Only about ½ the information that should be protected is actually being protected.”

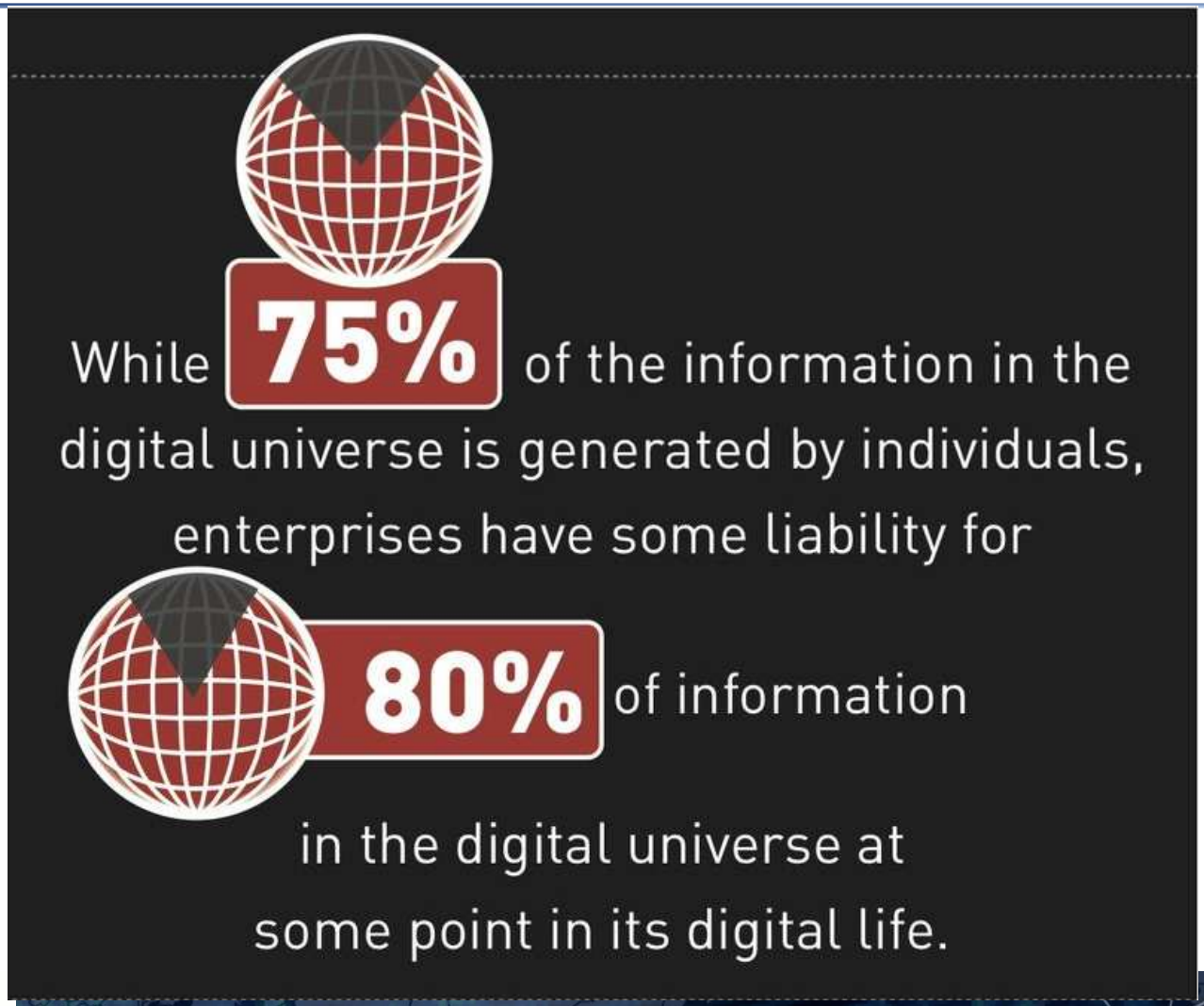
IDC: 2011 Digital Universe Study

Sources and types of data



The data explosion

The data explosion



The need for speed

"A less than perfect decision made in a timely manner and vigorously executed, is better than the best decision made too late."

- Gen. George Patton

The need for speed

- "The time between 'event' and 'action' is rapidly closing"
- "In the past, managers could take weeks or days to make important decisions, however to effectively compete globally, some companies are making critical decisions in hours, minutes or even seconds"

- Paul Barsch, 2009

The need for speed

- Detect and respond when there is:
  - Fraud or theft
  - Hacker attack
  - M&A opportunity
  - Product issue
  - Supply chain problem
  - Competitive action (e.g., price cut)
  - Inventory issue
  - Change in risk levels

What's the problem?

- In order to make quality, intelligent decisions, you need information that is:
  - Current
  - Reliable
  - Complete
  - In a form that is usable

What's the problem?

- Need to manage risk at the speed of business
- Periodic risk identification/assessment may not be enough
- Continuous risk monitoring to enable intelligent, speedy, quality decisions

What's the problem?

- You need to find the information you need
  - From inside a growing pile of data
  - Now
  - Wherever you are
- Previous reports, queries may not be sufficient
- Data may not be ready for interrogation
- Takes time to construct question and get answer

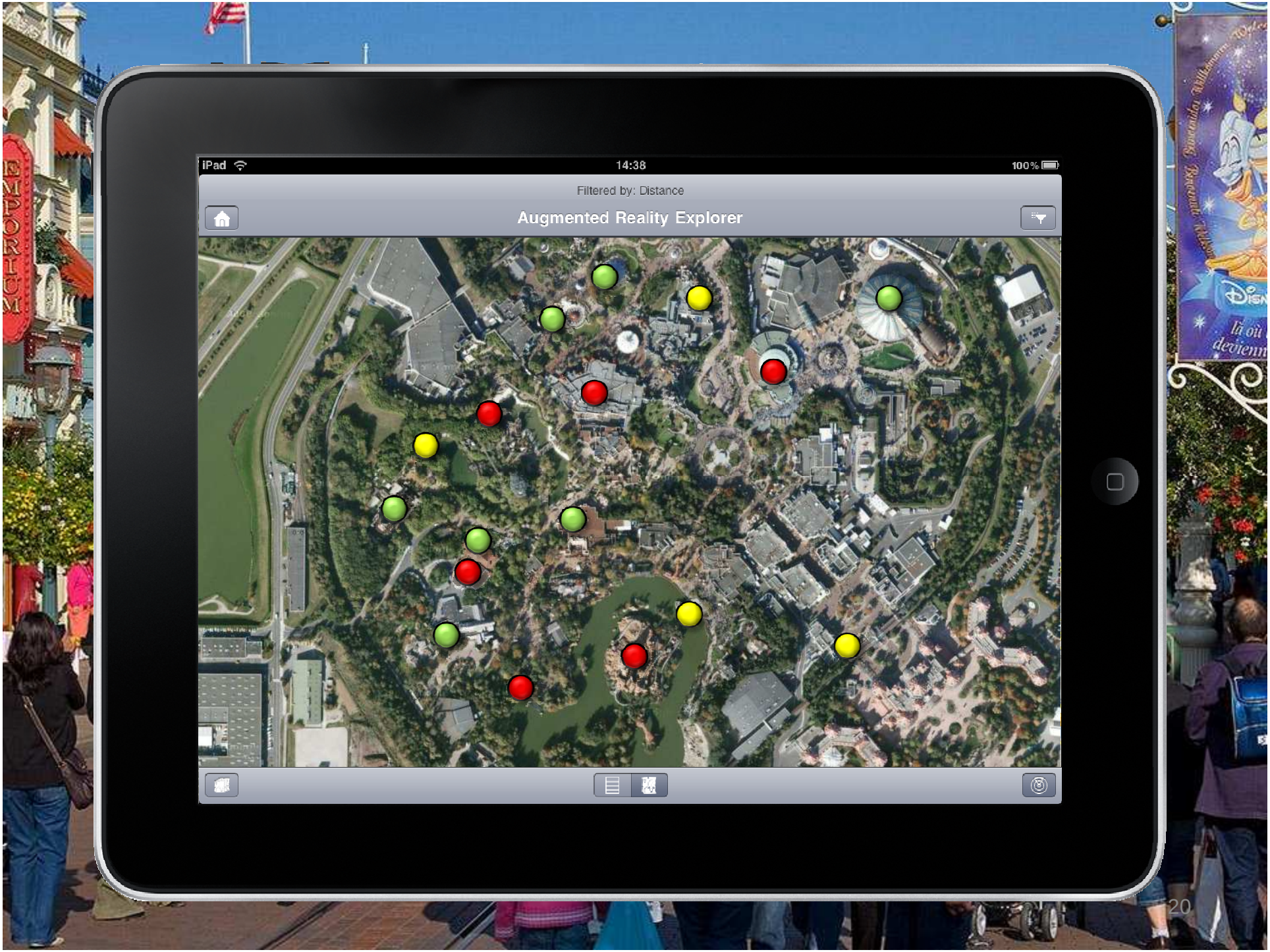
Changes in technology

- Source of data – everywhere
- Computing moving to devices
- Cloud
- Information and further analysis available on device

Mobile information

Changes in technology

- Ability to analyze billions of records in no time
- Ability to create new queries very fast
- Move from historical data, to current, to predictive
- Augmented reality
- Integration of geo-spatial data and analytics
- What else?


iPad
14:38
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Filtered by: Distance
Augmented Reality Explorer

Photo by Thomas Hawk, Flickr

Integrated geo-spatial data & analytics

Changes in technology

- What else?

Risks

- Computing power moving to device
  - Integrity of operation
  - Reliability of operation
  - Risk to network (e.g., data leakage, viruses)
  - Complexity of maintenance, multiple device types, etc.
  - Theft of device
  - Etc.

Risks

- Network complexity
- More points to protect
- Where is the data?
- Who owns the data (e.g., social media)?

Risks

- Integrity of the data, wherever it resides
- Completeness
- Integrity of analytical applications
- Consistency of data across multiple sources

Risks

- What else?

Opportunities

- Information that you need to make intelligent decisions, at your fingertips
- Risk monitoring
- Performance monitoring
  - Trends
  - Opportunities
- Sentiment analysis

Opportunities

- Continuous monitoring and auditing
- Intervention before risks turn to issues
- More?

Wrap-up

- Change describes the world we live in
- The pace of change is accelerating
- Decisions need to be made at speed
- Technology is our friend, but we need to manage the risks

Wrap-up

- Look ahead, don't "chase the bus"
- Seize the opportunity to improve:
  - The business
  - Your group
  - You
- Don't focus on the downside and miss the opportunity to use the technology

Closing

"To thrive in a global economy, companies must be able to make the best decisions based on accurate data sources that present as complete a picture as possible."

- Paul Barsch

Closing

"Windows of opportunity are opening and closing faster than ever before."

"The ability or inability to capitalize on those open windows could be the difference between sustained competitive advantage and obsolescence."

- Paul Barsch

1) Turn ignition key.

2) Shift into drive.

3) Press foot firmly on the throat of mediocrity.

Source: Mercedes ad

“If things seem under control, you’re just not going fast enough.”

Mario Andretti

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