Prerequisites for Analytics: Data Stewardship and Data Sharing
Apple Maps vs Google Maps


Source: Google Maps (2013-09-25)
Bad business because of data

- **Explode your support operations**
  - *Australia police discourage use of Apple maps app after rescues...*
  - *After $30 Billion Mistake, Can Tim Cook Manage Apple? - Forbes*
  - *TomTom defends data after Apple map glitches - Reuters*
  - *iOS 6: Using Maps - Support - Apple*

- **Make your customers very unhappy**
  - *Australia police discourage use of Apple maps app after rescues... Apple recognized a few months ago that its iOS map app was so inefficient that it encouraged use of competing... Reimagining death for the 21st century.*
  - *After $30 Billion Mistake, Can Tim Cook Manage Apple? - Forbes*
  - *TomTom defends data after Apple map glitches - Reuters*
  - *iOS 6: Using Maps - Support - Apple*

- **Market starts questioning the company**
  - *After $30 Billion Mistake, Can Tim Cook Manage Apple? - Forbes*
  - *TomTom defends data after Apple map glitches - Reuters*

- **Start a battle with your partners**
  - *Australia police discourage use of Apple maps app after rescues...*
  - *TomTom defends data after Apple map glitches - Reuters*

- **Explode your support operations**
  - *After $30 Billion Mistake, Can Tim Cook Manage Apple? - Forbes*
Bad business because of data

**Apple fires manager of Maps team | Ars Technica**

Apple replaced Google as the data source for its Maps app in iOS 6 after weighting of streets and other regions, Apple maps fail in this regard.

**Apple continues mapping buying spree with HopStop to ... - 9to5Mac**

Among other complaints about Apple’s Maps, many didn’t like the lack ...

**Apple CEO apologizes for Maps flaws, recommends rivals | Reuters**

Apple says Maps not waiting in wings for iPhone 5. Tue, Sep 25 2012. Apple ...

- Forced to reorganize & dump talent
- Keep paying to fix your mistakes
- Recommend competition to customers
Google’s approach – a different way of thinking about data
Google’s approach – clear data policies with partners

The Map Content Partners Help Center contains information for organizations that contribute authoritative mapping data to Google, including 3D models, aerial imagery, public transit routes and schedules, terrain and many types of vector data.

Have map content you want to share? Let us know.

How to

- Partnering with Google
- Licensing Your Map Content to Google
- Providing Your Map Content to Google
- Map Content Types and Specifications
- Google’s Use of Your Map Content
- Publicizing Your Partnership with Google

Additional resources

- Map content specifications
- Map content partner publicity guidelines
- Let us know about your map content

Map Content Partners - Help for other Google products
Problem

• Data is getting …
  • … bigger, faster, in more shapes and formats, from more sources … more complex to control
  • … more important for business, both for operational and analytical purposes

• Business wants to keep focusing on the business
  • Data is in databases and servers, so IT is covering it
  • Complexity increase makes current approach tedious, error prone and unsustainable
Solution

• Make slogan “data is an asset” **actionable**:
  • Stop trying to convince the business with “it is the right thing to do”
  • Start involving the business in a way that is easy to understand, practical and effective

• **Make the data management process a sustainable business process**
  • IT cannot focus on technology alone and needs to facilitate business taking ownership
  • Show & communicate that “data drives business” and “business drives data”
Where to start?

• Thousands and thousands of different data elements
• It takes significant time and effort to define, categorize, relate to business terms, establish governance, etc.
• Not all data elements are equally important to business or corporate functions
• Regulatory pressure is increasing and much more data points are required at higher frequency
• Some data elements are required by auditors, counterparties, etc.

Basel’s Principles

- Governance
- Data Architecture and infrastructure
- Data Accuracy and Integrity
- Completeness
- Timeliness
- Adaptability
- Reporting accuracy
- Comprehensiveness
Find out what is critical...

- Critical Data Elements
- Auditors, Clients, Counterparties...
- External Risk, Compliance, Finance...
- Equities, Fixed Income, Wealth Management...
- Business Lines
- Critical Data Elements
- Corporate Functions
- Critical Data Elements
- Risk, Compliance, Finance...
- Dodd Frank Act, Basel III, FATCA...
- Regulations
…and use it to drive change

- Move from report based delivery to data element based delivery
- Select Critical Data Elements based on business line and corporate function needs, regulatory and external requirements
- Streamline internal (e.g., MA) & external reporting
- Show proof of control over data: regulatory forbearance & compliance as well as overall increased internal efficiency
- Deliver faster at lower cost
## Applying Data Governance

### Load Your Operating Model

<table>
<thead>
<tr>
<th>Organization</th>
<th>People &amp; Processes</th>
<th>Asset Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set-up DG Council, Stewardship</td>
<td>Roles, Responsibilities &amp; Controls</td>
<td>Business and Data Definitions</td>
</tr>
<tr>
<td>Committee and Working Groups</td>
<td>Data Ownership</td>
<td>Taxonomies</td>
</tr>
<tr>
<td>Multi-Tier Organization Support:</td>
<td>Workflows &amp; Common Processes</td>
<td>Reference Data</td>
</tr>
<tr>
<td>Centralized, Decentralized or</td>
<td>SME Outreach</td>
<td>Rules and Policies</td>
</tr>
<tr>
<td>Federated</td>
<td>Collaboration</td>
<td>Business Traceability</td>
</tr>
</tbody>
</table>

### Execute

- Reference Data Management
- Business Glossary Data Dictionary
- Policy Management Issue Management

### Monitor

- Actionable Metrics
  - Make Good Conduct Visible
- Measure Maturity Progress
  - Data Quality Issue Management
Personal Privacy Policy

**Status**
Accepted

**Concept Type**
Policy

**Data Steward**
Mary Smith

**Definitions**
It is one of the principles of our organization to treat personal privacy with high regard. As such, we must always work to make sure that the privacy of our customers, employees and subjects are never violated.

**Applies to**

<table>
<thead>
<tr>
<th>Business Process</th>
<th>Vocabulary</th>
<th>Complies</th>
<th>Check Sent</th>
<th>Valid to</th>
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<tbody>
<tr>
<td>Customer Onboarding</td>
<td>Business Processes</td>
<td>No</td>
<td>03/01/2012</td>
<td>N/A</td>
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<tr>
<td>Clinical Trial Registration</td>
<td>Business Processes</td>
<td>Yes</td>
<td>03/02/2012</td>
<td>11/01/2014</td>
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</tbody>
</table>

**Criticality**
High

**Implemented as**

<table>
<thead>
<tr>
<th>Rule</th>
<th>Domain</th>
<th>Valid from</th>
<th>Valid to</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>Address Confidentiality Rule</td>
<td>Customer Domain</td>
<td>01/01/2012</td>
<td>12/01/2014</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

**Update frequency**
Quarterly
Business Glossary

1. Import
2. Improve
3. Publish
4. Use
Manage, mapping & hierarchy

Expanded Taxonomy Tree:

- Finance Product
  - Loan
    - Fixed Rate Interest Loan
    - Fixed/Floating Rate Interest Loan
      - 25/75 F/F Rate Interest Loan
      - 50/50 F/F Rate Interest Loan
      - 75/20 F/F Rate Interest Loan
    - Floating Rate Interest Loan
  - Swap
    - Credit Default Swap
    - Credit Support Annex
    - Currency Swap
    - Interest Rate Swap
    - Non Deliverable Swap
    - Total Return Swap
<table>
<thead>
<tr>
<th>Snapshot (Configuration)</th>
<th>Status</th>
<th>Creator</th>
<th>Created On</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO Country Codes</td>
<td>Accepted</td>
<td>Nicky Lemmens</td>
<td>05/21/2011</td>
</tr>
<tr>
<td>ISO Country Codes 2012</td>
<td>Accepted</td>
<td>Nicky Lemmens</td>
<td>Yesterday</td>
</tr>
<tr>
<td>ISO Country Codes 2011</td>
<td>Accepted</td>
<td>Clovis Six</td>
<td>05/21/2011</td>
</tr>
</tbody>
</table>

Details:

- **ISO Country Codes 2011**
  - Curabitur acvel tristique semper augue cras congue urna sed neque.
  - Terms: 239
  - Created on 21/09/2012 by Clovis Six
Data Stewardship Management

1. Define
2. Apply
3. Comply
4. Act
The process of data management

- Intake / Proposal
- Review, approval, voting
- Escalation
- Issue management
- Data Sharing
- Security classification
- Policy audit
- ...

Vincent Van Gogh

I put my heart and my soul into my work, and have lost my mind in the process.
Issue Management

Source: http://photo.getaway.co.za/2012/03/26/andrew-aveley-hidden-danger/
Detect and research the issue

I think I have a problem with my data...
Communicate the issue

Guys, I have a problem with my data...
Hoping for feedback in the communication

Yup. There seems to be a problem with his data...
Processing the issue
/dev/null
## Organization, roles & responsibilities

### Overview

#### Responsibilities

<table>
<thead>
<tr>
<th>Name</th>
<th>Domain Type</th>
<th>Chief Steward</th>
<th>Data Steward</th>
<th>Stakeholder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>Glossary</td>
<td>Mary Smith</td>
<td>John Fisher</td>
<td>Mike Jones</td>
</tr>
<tr>
<td>Customer Domain</td>
<td>Glossary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Metrics and KPIs</td>
<td>Business Asset Domain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance Reports</td>
<td>Business Asset Domain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISIC Revision 4 Codes</td>
<td>Codelist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISIC Revision 4 Terms</td>
<td>Glossary</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*There is currently no description.*
Report, Resolve, Notify

- **Report & Triage**
- **Review**
- **Escalation**
- **Resolution**
- **Assignment**
- **Notification**
Metrics

**New Issues**

1: 🔄 Type: Issue, Status: New
2: 🔄 Type: Issue, Status: Under Review, Status: Invalid, Status: Accepted, Status: In Progress, Status: Resolution Pending, Status: Pending

**Policies**

1: 🔄 Type: Policy
2: 🔄 Type: Policy, Status: Accepted
### Data Quality

#### Accuracy
- Customer: 94.2%
- Customer Entity: 99.5%
- Country Validation (Customer): 98.5%
- Email Validation (Customer): 60.5%

#### Consistency
- Data Entry: 1
- Data Profiling Rule: 5
- 32636 Rows

#### Data Asset

<table>
<thead>
<tr>
<th>Data Asset</th>
<th>Passing Rows</th>
<th>Failing Rows</th>
<th>Quality Score</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td>27447.0</td>
<td>1180.0</td>
<td>92.06 %</td>
<td>☒</td>
</tr>
<tr>
<td>CUSTOMER ENTITY</td>
<td>27447.0</td>
<td>1189.0</td>
<td>93.06 %</td>
<td>☒</td>
</tr>
<tr>
<td>Country Validation (Customer)</td>
<td>3150.0</td>
<td>9.0</td>
<td>99.72 %</td>
<td>✔️</td>
</tr>
<tr>
<td>Email Validation (Customer)</td>
<td>3158.0</td>
<td>1.0</td>
<td>99.97 %</td>
<td>✔️</td>
</tr>
<tr>
<td>SIC Code Validation (Customer)</td>
<td>3136.0</td>
<td>23.0</td>
<td>99.27 %</td>
<td>✔️</td>
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<tr>
<td>Date of Birth Verification (Customer)</td>
<td>8640.0</td>
<td>1160.0</td>
<td>68.40 %</td>
<td>✔️</td>
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<tr>
<td>SIC Code (Customer)</td>
<td>3112.0</td>
<td>47.0</td>
<td>98.51 %</td>
<td>✔️</td>
</tr>
<tr>
<td>Gender Validation (Customer)</td>
<td>6051.0</td>
<td>3949.0</td>
<td>60.49 %</td>
<td>☒</td>
</tr>
</tbody>
</table>

Now: 91.06%
Data Sharing

Source: http://www.cutestpaw.com/images/sharing-is-caring-4/
<table>
<thead>
<tr>
<th>Item Description</th>
<th>Price</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Selling Information Governance to the Business: Best Practices by Industry and Job Function</td>
<td>$33.15</td>
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<tr>
<td>The DAMA Guide to the Data Management Body of Knowledge (DAMA-DMBOK) Print Edition</td>
<td>$74.95</td>
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</tr>
<tr>
<td>Data Governance: How to Design, Deploy and Sustain an Effective Data Governance Program</td>
<td>$44.99</td>
<td>1</td>
</tr>
</tbody>
</table>
Data Sharing

• Find the data assets you need for your business process

• Stay compliant with the rules & policies that apply to those data assets

• Coordinate with the relevant stewards, stakeholders and owners for the data logistics
Shopping for data
CONFIDENTIAL DATA

We were not able to ship the data to your business unit / department / system / country / ... because of legal & risk issues. This request for data sharing has been flagged. Please consult your legal department. Have a nice day.
• Collibra is a leading Data Governance software company bringing Business and IT together to govern data as an enterprise asset.

• As a best of breed vendor, Collibra provides the data steward organization with a technology platform that supports their activities.

• Collibra is a Gartner Cool vendor for Enterprise Information Management.
Services

• **Launch**
  • Strategic workshop (1 day)
  • Data Governance & Stewardship fundamentals (2 days)
  • Quick Start (10 days)

• **Accelerate & sustain**
  • Data Steward training & certification
  • Mentoring

• **Industry specific**
  • Critical Data Elements kick start offering
  • Industry specific Governance templates
Products

Data Stewardship Manager
Business Semantics Glossary
Reference Data Accelerator
Data Governance Center

The MDM Institute Analyst Report
"DGC 4.0 is an excellent choice for enterprises looking to embark on their Data Governance journey.\", Aaron Zornes
Data Governance Center

- Business friendly, collaborative web-based application
- Fastest time to deployment
- Out of the box & fully configurable operating model (roles, workflows, metrics, federation, …)
- Governance engine with detailed & open API

“Deploys 20 times faster than anything else we have tried before”.
Information Architect at large financial services organisation
"Companies must rethink data sharing"

- Company strategy built around data sharing
- Shift from being manufacturer associated with jet engines to an organization where information is an asset

Jeff Immelt
GE CEO
