Why Your Unstructured Data is a Blessing Not a Curse

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Agenda

- Structured Data
- Transition from Structured Data to Unstructured Data
- Dealing with the Unstructured Blessing
- Spread of Unstructured Data
- Future of Unstructured Data
- Summary
Structured Data

- The data was structured because, it was always collected, pruned and stored for reporting purposes or for operational details.
- Structured Organized Relationally mapped data was far efficient and meaningful than storing data in plain files.
Transition from

STRUCTURED DATA TO UNSTRUCTURED DATA
Structured V/s Unstructured Data

- **Internal Sources**
  - Email
  - Call Center Transcripts
  - Forums, Blogs

- **External Sources**
  - Social Networks
  - Forums, Blogs
  - Videos

- **Internal Sources**
  - CRM
  - Point of Sale
  - Service Tickets

- **External Sources**
  - Industry Research Data
  - Financial Market Data

Text Mining & Human Analysis

- Dashboard & Alerts
- Reports
- Automatic Feeds to Other Systems
Why Unstructured Data?

• Need for processing real time data
• Unknown nature and order of data which has to be processed in a Real Time environment
• Aggregation of real time data to provide context specific information
History of Unstructured Data

• Search Engines were early pioneers dealing and fighting with Unstructured Data
  • Crawl Text Content, Categorize and Provide Context specific information

• Before Search Engines - Intelligence arms of super powers [Cryptographic Codes and Ciphers were transmitted in Unstructured fashion with a nested Structure]
What is unstructured data in today's world?
Customer Behavior ---> Increased Profits

Focus on attitudes is difficult to convert into driving behaviors and profits.

Focusing on behaviors means you can understand both attitudes and profit, enabling you to make the right decision for the customer and therefore your business.

Focus on profit leads to little relevance, increasing issues of customer chum and dissatisfaction.
Dealing with

THE UNSTRUCTURED BLESSING
Known is a drop, Unknown is an ocean

Unstructured data is generated in real time by several users and multiple devices that span across diverse business interests
Dealing with the Unstructured Blessing

<table>
<thead>
<tr>
<th>Complexity</th>
<th>Blessing</th>
<th>Issue</th>
<th>Solution</th>
<th>Advantage</th>
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<tbody>
<tr>
<td>What is the rule that would identify each of those interests</td>
<td>Relevant data for all nested in an unstructured fashion</td>
<td>What is the master key</td>
<td>Uncover and discover hidden unknown entities using latest technology</td>
<td>Dismantling unstructured data to get all possible maps and relation</td>
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Uncovering Information

Image Source - SYBASE
Unstructured Data Discovery

• The whole process of data analysis then starts with Uncovering Information maps retrieved from Unstructured Data
• In a structured Data, We have a relational map defined but in Unstructured data, the Data and Information Maps are discovered
• Since the discovery is dynamic and input specific, The Information Map Engine designed for processing Unstructured data would better over time as much as Search Engines have become now
Spread of
UNSTRUCTURED DATA
Spread of Unstructured Data

• Popularity of Search Engine based Activity led to huge demand for dealing with Unstructured Data generated in millions every second by users all across the world

• Early 2000s till now was the period which gave time and scope for developing platforms/tools for dealing with such unstructured data in all walks of activity from

| Banking | Online commerce | Search Engine | Social Network | Content Providers |

• Inevitably Unstructured Data has to be dealt with in a dynamically changing landscape of User-Technology interactions
Future of 

UNSTRUCTURED DATA
Future of Unstructured Data

- Prediction and Modeling Engines for Unstructured Data
- On demand real time insight flowing in from unstructured data
Benefits and Challenges

- Information available on customers can help to drive **sales and growth**
- Opportunities to analyse customer information and improve **customer relationship** management strategies as well as **relationship marketing**

- Without proper management, could **run out of storage space** as well as facing compliance and **privacy issues**
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