### Clustering Metadata for improved Querying

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#### Goals
1. Glean information from GUI rather than searching through endless lists.
2. Change the way people who read reports find collaborative and augmenting information.
3. Facilitate discovery of new information.

#### Previous Work
- Scatter/Gather – list tree view, hierarchy.
- Cluster Interface for scientific data.
- Metadata Extraction – automatically grab features.
- Normal Listing Engines – lists of results.
- Co-occurrence – reframing the problem.

#### Input/Process

**Corpus**
- Reports about one or several closely related subjects.
- Reports contain metadata.

**Process**
1. Extract Metadata and keyword information.
2. Build vectors with metadata and references.
3. Group documents by features; documents with more features/content in common are in small clusters.

**Contents**
- Source, Author, Region, GPS, Date Timestamp
- Contents
- Object References: maps, photos, charts/graphs, reports...

*Clustering algorithm can be chosen based on experimental performance.*

#### User Interface

- **Map**
- **Author**
- **Report**

**Query:** Enron
- **Demo Graph** is 2-dimensional, people can interact in up to 3 Euclidian dimensions.
- **Distance** between points indicates how closely they’re related.
- **The style of the lines between documents** specify type of relationship.

#### Future Work
- **Build system.**
- **Effectiveness with different data sets?**
- **Other problems addressable with system?**