

## **Jigsaw: supporting investigative analysis through interactive visualization**

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Jigsaw presents information about documents and entities through multiple distinct visualizations called views. Each view provides different perspective onto the data. The views, which are discussed in more detail in the following subsections include:

- A List View containing multiple reorderable list of entities in which connections between entities are shown by coloring related entities and drawing links between them, multiple sorting options are available;
- A Graph View displaying connections between entities and documents in a node-link diagram, allowing analysts to dynamically explore the documents by showing and hiding links and nodes;
- A Scatter Plot View highlighting pair-wise relationships between any two entity types and supporting focus on a specific subset of the displayed entities using range sliders;
- A Document View displaying the original text document with highlighted entities showing how often a document already has been viewed and supporting entity modification;
- A Calendar View providing an overview of the documents and entities within them according to the publication date of the document;
- A Document Cluster View representing all documents in the collection and providing manual and automated commands to partition the documents in meaningful clusters;
- A Shoebox supporting the analyst in the evidence marshalling process, providing functionality to build hypotheses and organize collected evidence.

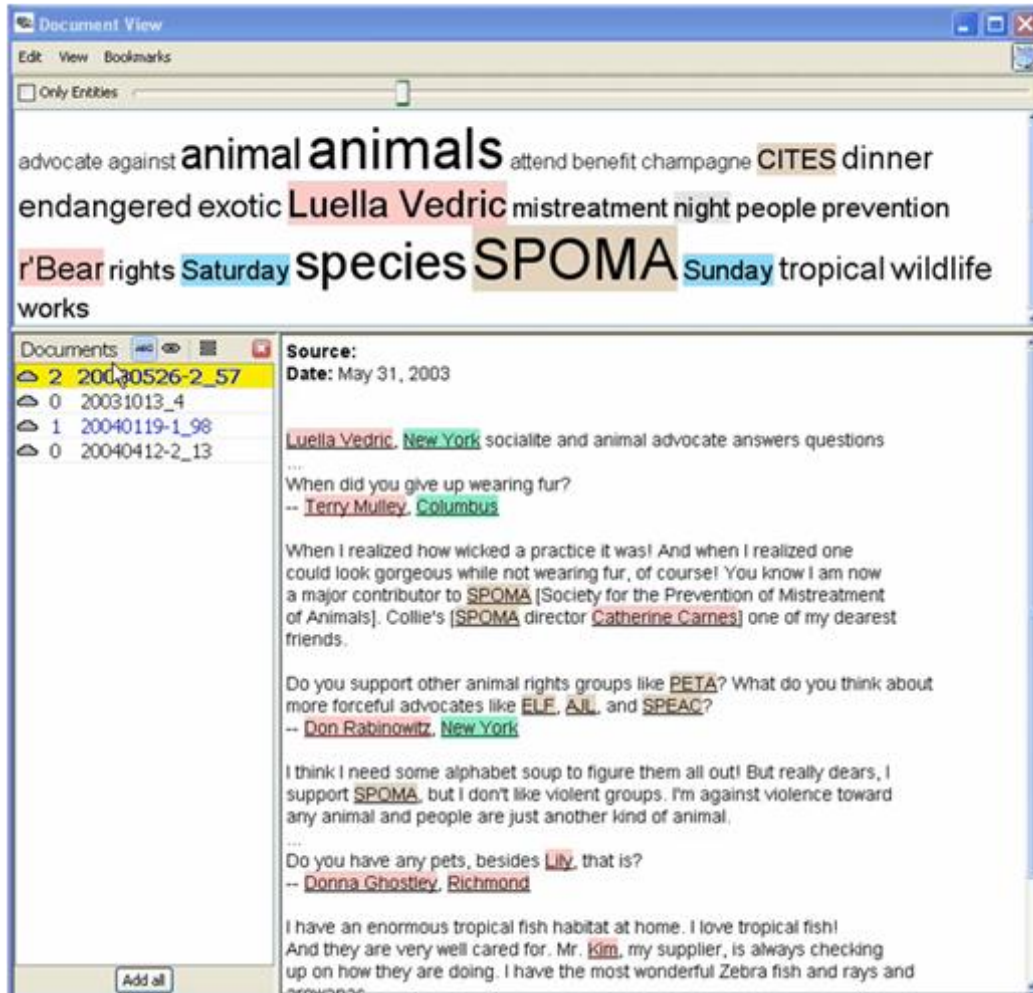


Figure 1. Document View. The document view show the selected document with entities highlighted and colored by type

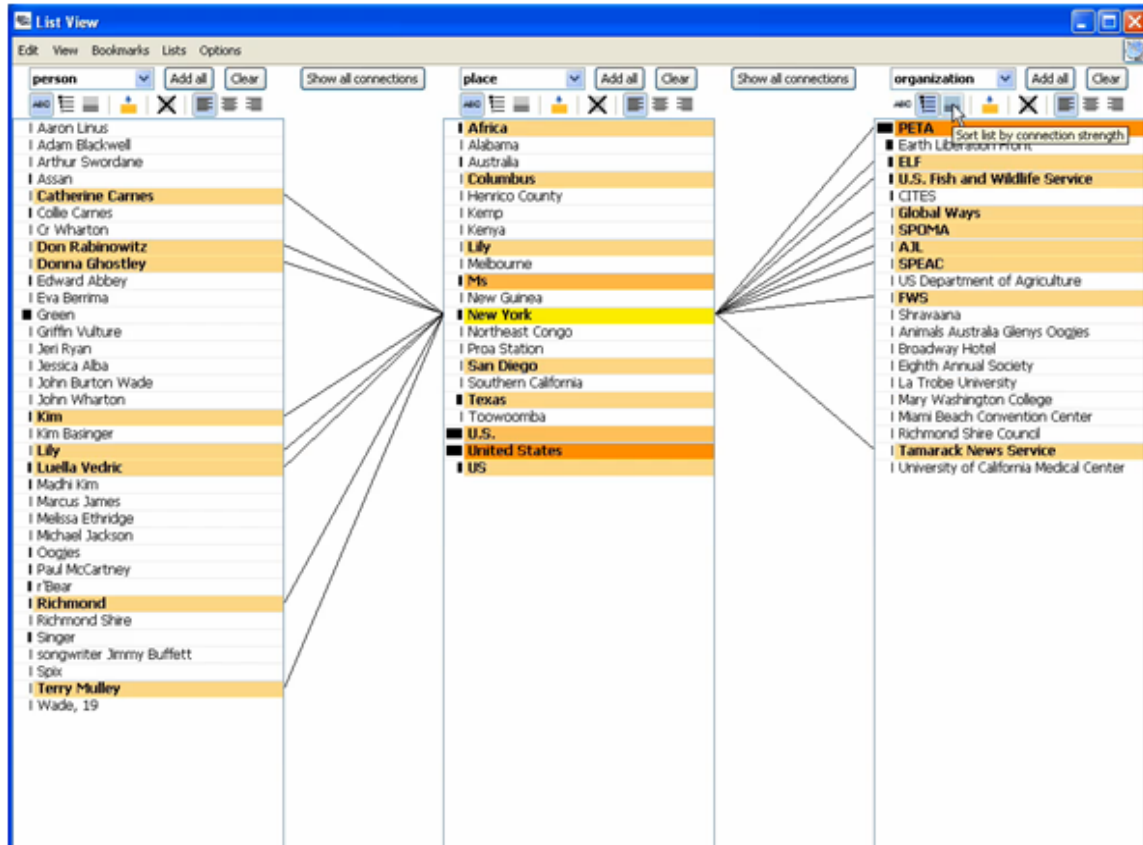


Figure 2. List View. Selected entities are shown in yellow and connected entities are indicated by the joining diagonal lines and the orange shading.

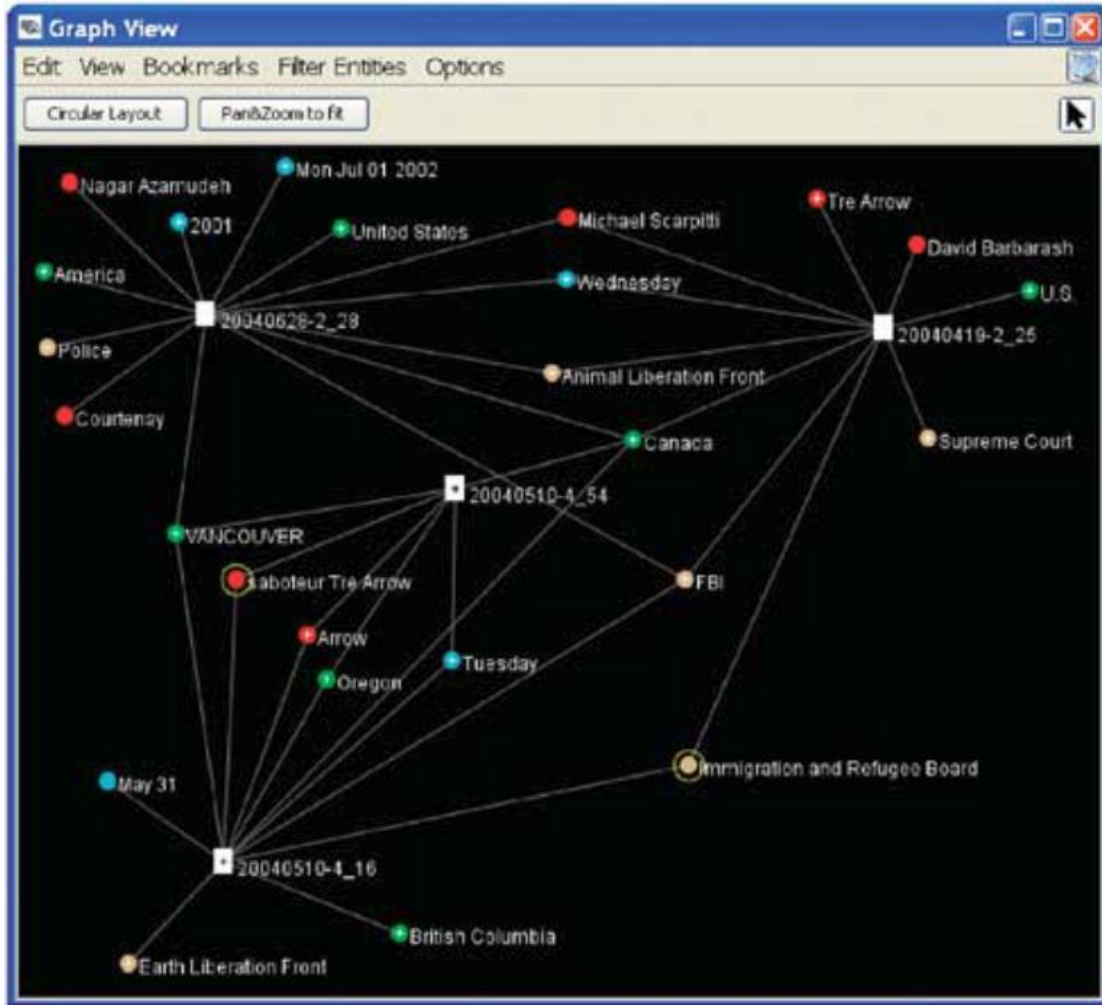


Figure 3. The Graph View. Documents are white rectangles and entities are circles colored by type. Edges connect documents to the entities they contain.

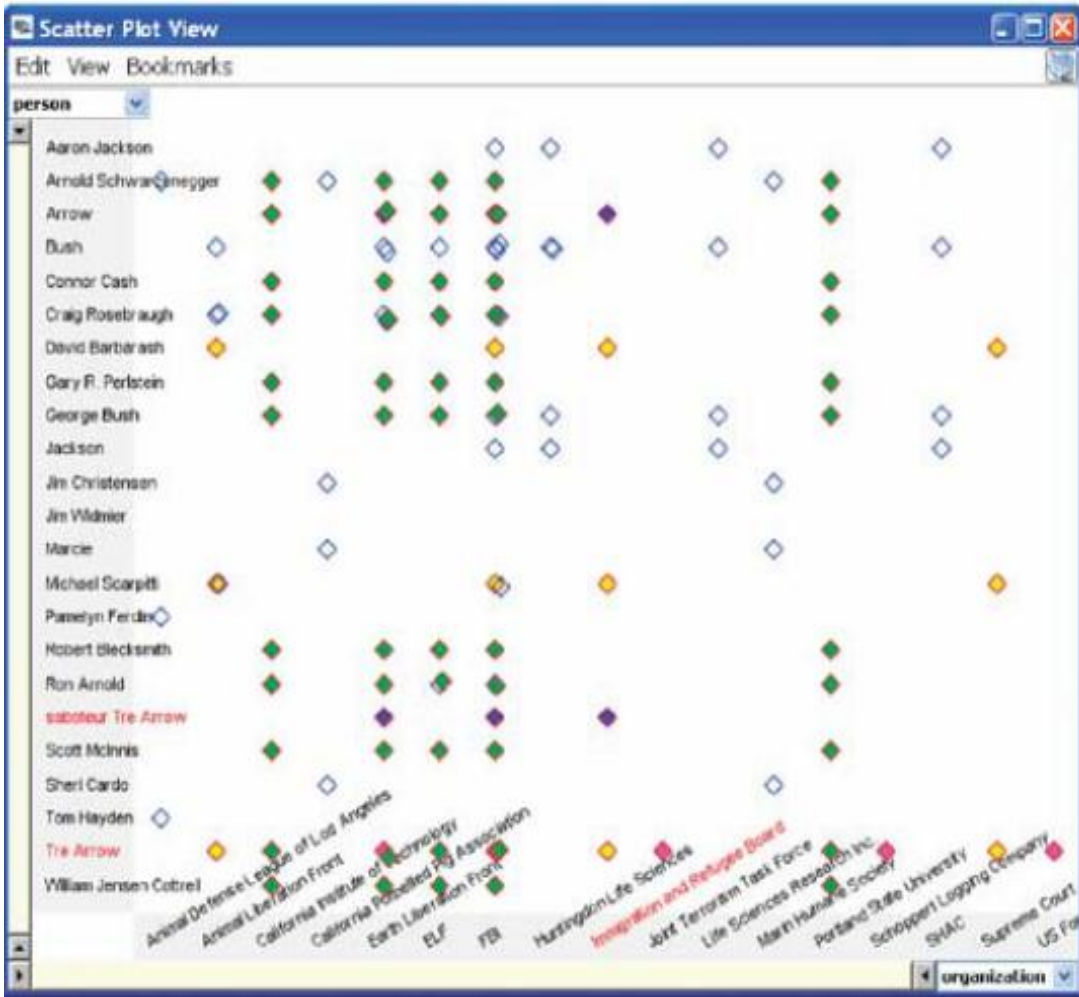


Figure 4. The Scatter Plot View. Each axis enumerates a list of entities. Diamonds in the center indicate documents containing

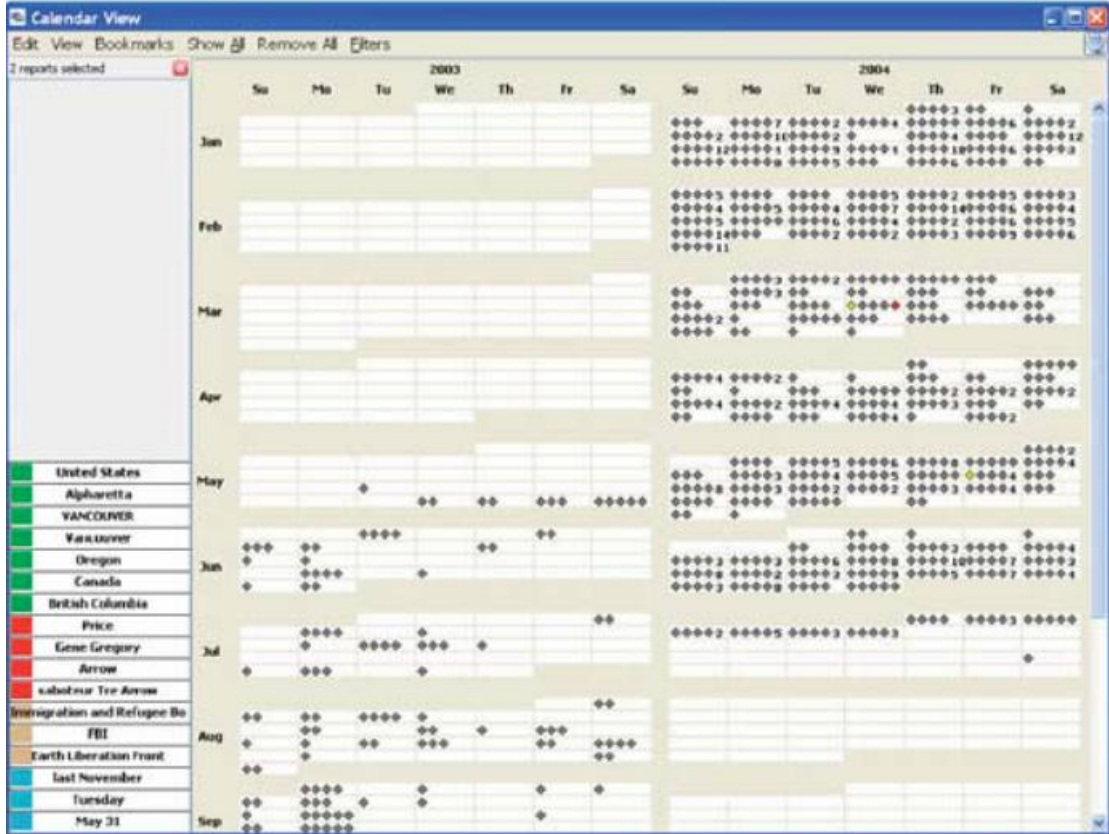


Figure 5. The Calendar View. Small diamonds represent documents or entities connected to the date in which they appear.

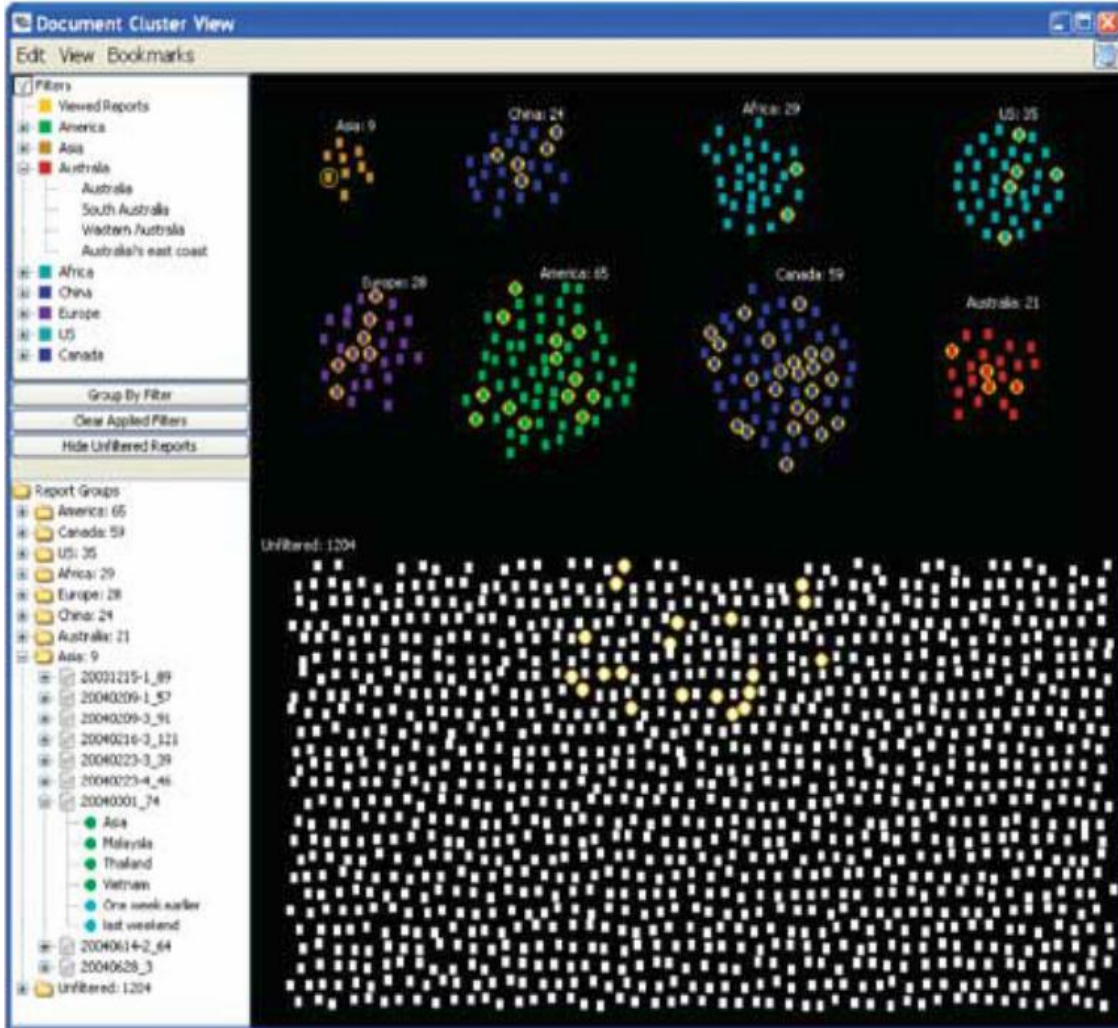


Figure 6. The Document Cluster View. Each small rectangle represents a document in the collection, and can be colored and grouped based

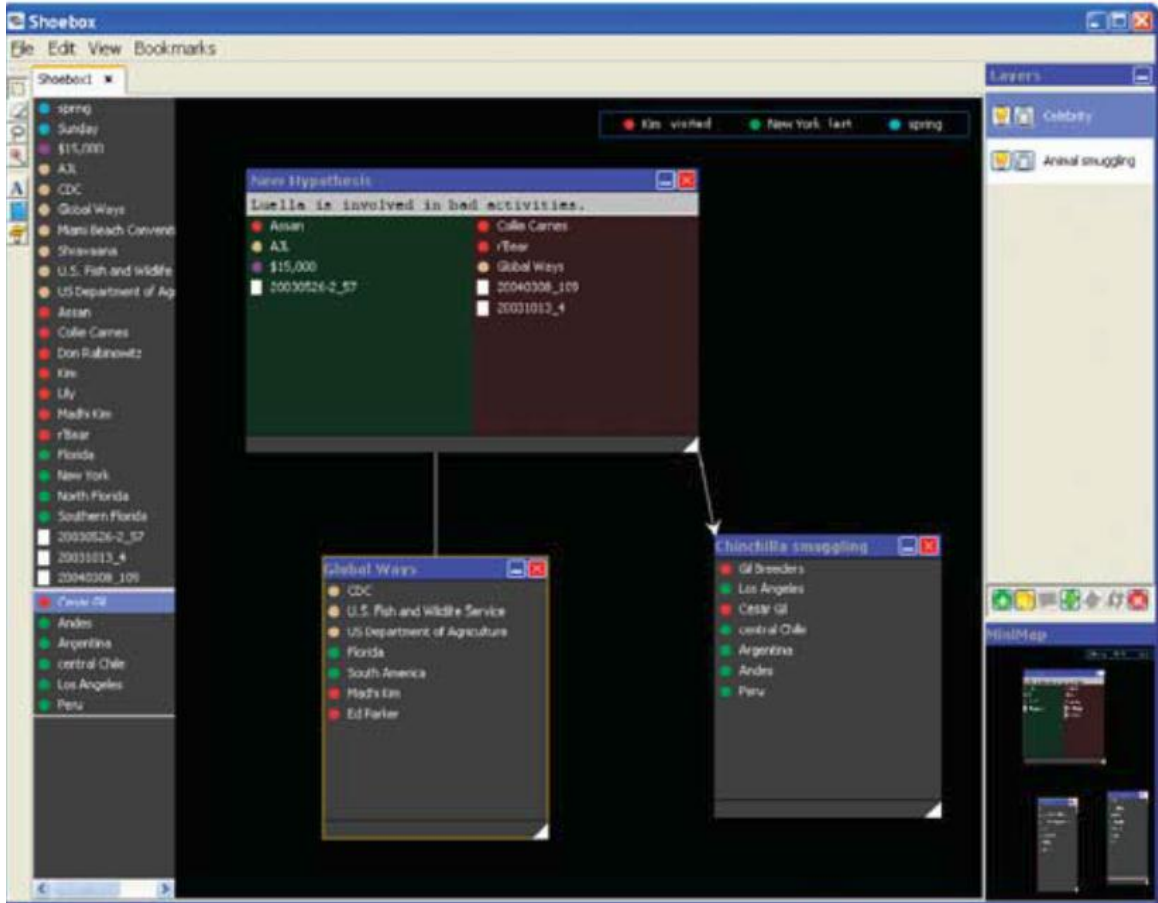


Figure 7. The Shoebox. The group, hypothesis, sentences, and link feature are used to organize evidence.

URL:

<http://www.zcliu.org/wp-content/uploads/2010/01/iv08-jigsaw.pdf>



**Citation:**

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Year 2010: 1.341