

# Combining GD & InfoVis Techniques to Support Sensemaking

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## The Problem

- Assist analysts (police/intelligence, reporters, scientists) in information foraging and sense-making given a large collection of textual documents (reports, emails, blogs, abstracts, etc.)
- Help analysts discover plans, plots, and connections embedded throughout the documents -- plots are difficult to find by simply examining and reading the documents



What does the problem look like?



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What does the problem look like?



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# What does the problem

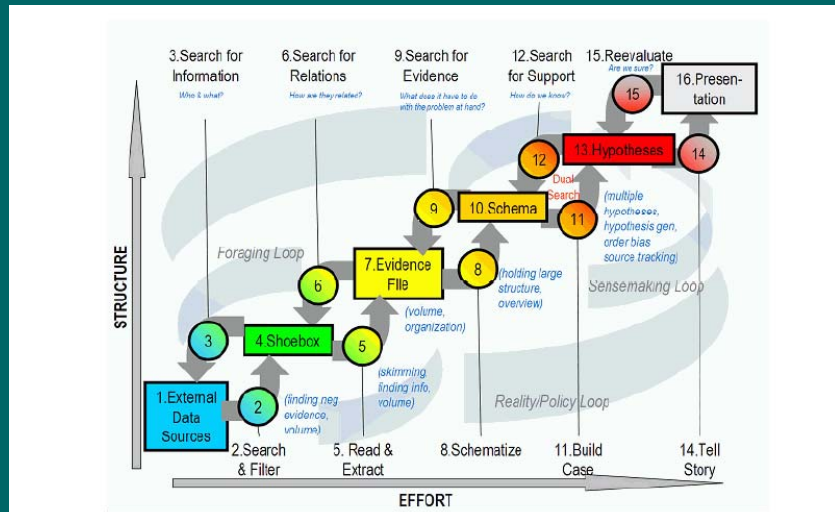


Figure 2.1. Notional model of sensemaking loop for intelligence analysis derived from CTA.

Pirolli & Card, ICIA '05

## An Exemplary Report

**Report Date: 12 May, 2003 [From Fulton County PD].**

A package of beef and a letter from "Animal Justice League" claiming that meat had been poisoned in 20 Los Angeles supermarkets was left at the Los Angeles Times, 1st Street offices. The paper also received a phone call taking credit for the action and stating, "We will take direct action against animal abuse in whatever form is necessary to stop the cruelty." A similar threat was made against a supermarket in Upsala in November. No poisoned meat was found at either supermarket.

What if there are  
thousands of these?



## Our Focus

- Entities within the documents
  - Person, place, organization, phone number, date, license plate, etc.
- A plot/threat within the documents will involve a set of entities in coordination



## Entity Identification

- Must identify and extract entities from plain text documents
  - Crucial for our work
- Not our main research focus – Collaborate with or use tools from others



## Jigsaw

- Multiple visualizations of documents & entities (views)
- Views are highly interactive and connected
- User actions generate events that are transmitted to and (possibly) reflected in other views

“Putting the pieces together”



## Connections

- Entities relate/connect to each other to make a larger “story”
- Simple definition:
  - Two entities are connected if they appear in a report together



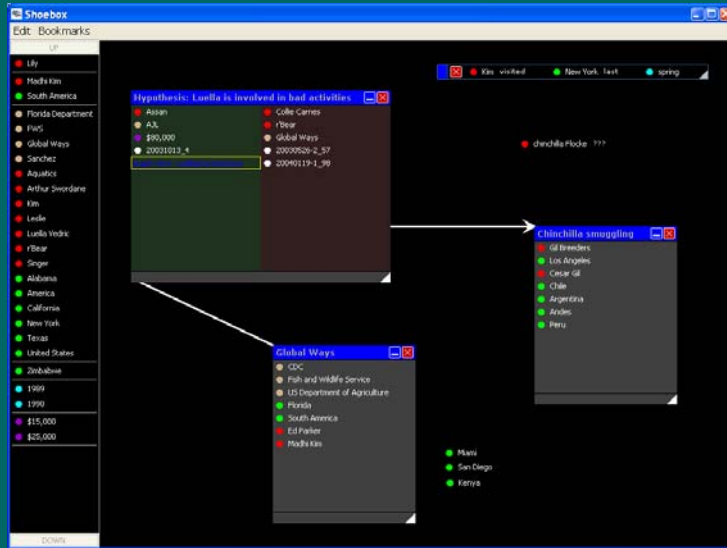
## Console





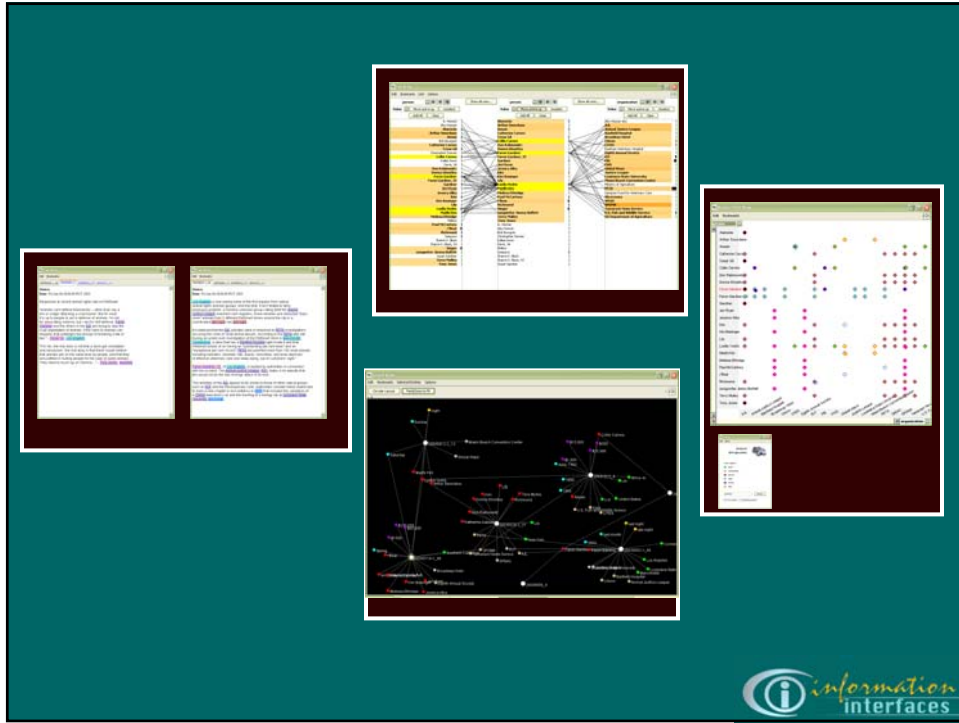


# Shoebbox



# The Need for Pixels





## Jigsaw Demo

## End

- Thanks for your attention!
- Questions?

<http://www.gvu.gatech.edu/ii/jigsaw>

