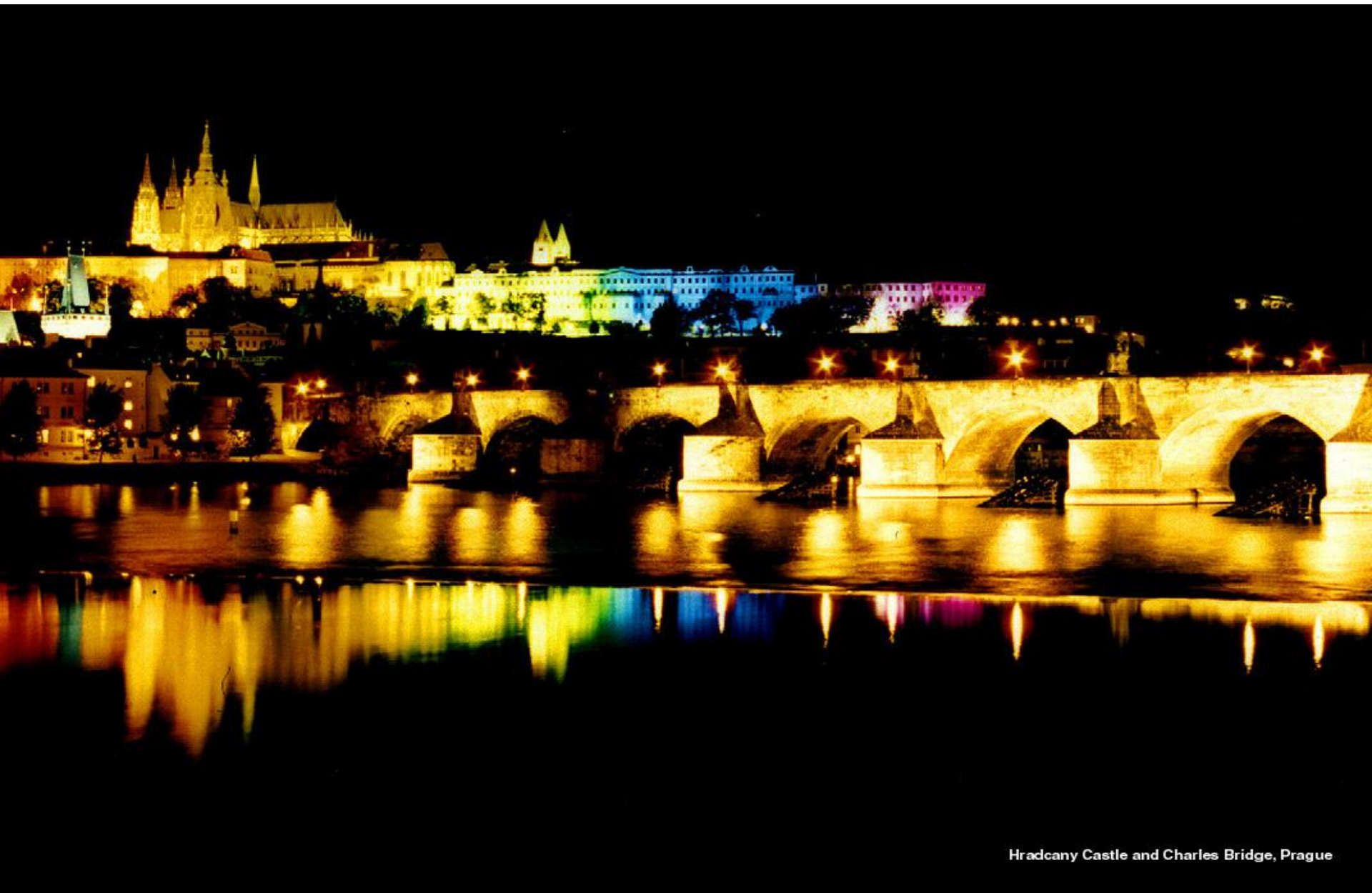


# **Session 7: Early Case Assessment**

**LBSC 708X/INFM 718X  
Seminar on E-Discovery  
Jason R. Baron  
Adjunct Faculty  
University of Maryland  
March 8, 2012**



Hradcany Castle and Charles Bridge, Prague

# How much does counsel know?

- About the nature and scope of the relevant evidence existing in custody and control of the opposing party?
- Same question re the relevant evidence existing in one's own client's custody and control – how much is known?
- How much is know-able?
- Have the answers changed in past decade of practice?

# Early Case Assessment

- **Early case assessment** refers to estimating risk (cost of time and money) to prosecute or defend a legal case.
- Human expertise
- Technology

# Why ECA?

- Most cases settle prior to trial
- Exposure (likelihood of negative outcome in litigation)
- Discovery and document review in particular are costly, burdensome
- Protecting against sanctions (spoliation should preservation obligations not be carried out with due diligence)
- Speed
- Insight into case (readings this week)
- Establishing a budget

# ECA lifecycle

Risk/benefit analysis

Putting into place legal hold

Collecting/culling info for attorney review

Processing relevant info using  
filtering, search terms,  
predictive coding, etc.

Producing info (in discovery)

Re-using info, KM, BI

# ECA Downsides

Up front costs

False negatives (example case)

# Software approaches to ECA

Keywords

Relevance ranking

Clustering

Predictive Coding

Sentiment detection

Social network analysis

Visual analytics





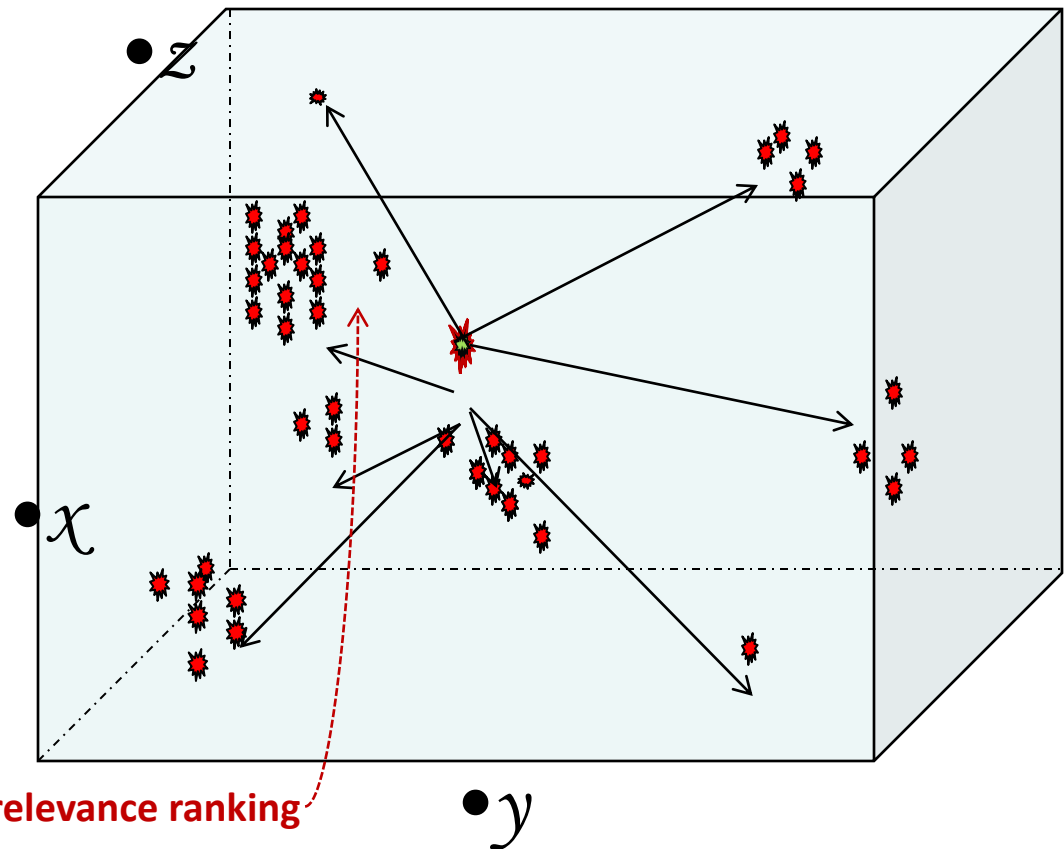
# Bayesian Statistical Models

- Based on mathematical models of Statistical Probability to recognize documents of similar content.
- Learns passively from the document content
- Position, frequency and proximity of terms (language independent) combine to create a mathematical “thumbprint” of concepts contained in documents.
- Useful to “cluster” documents by content
- Can “learn” to build clusters from exemplar sets
- Requires re-indexing and assessment can change

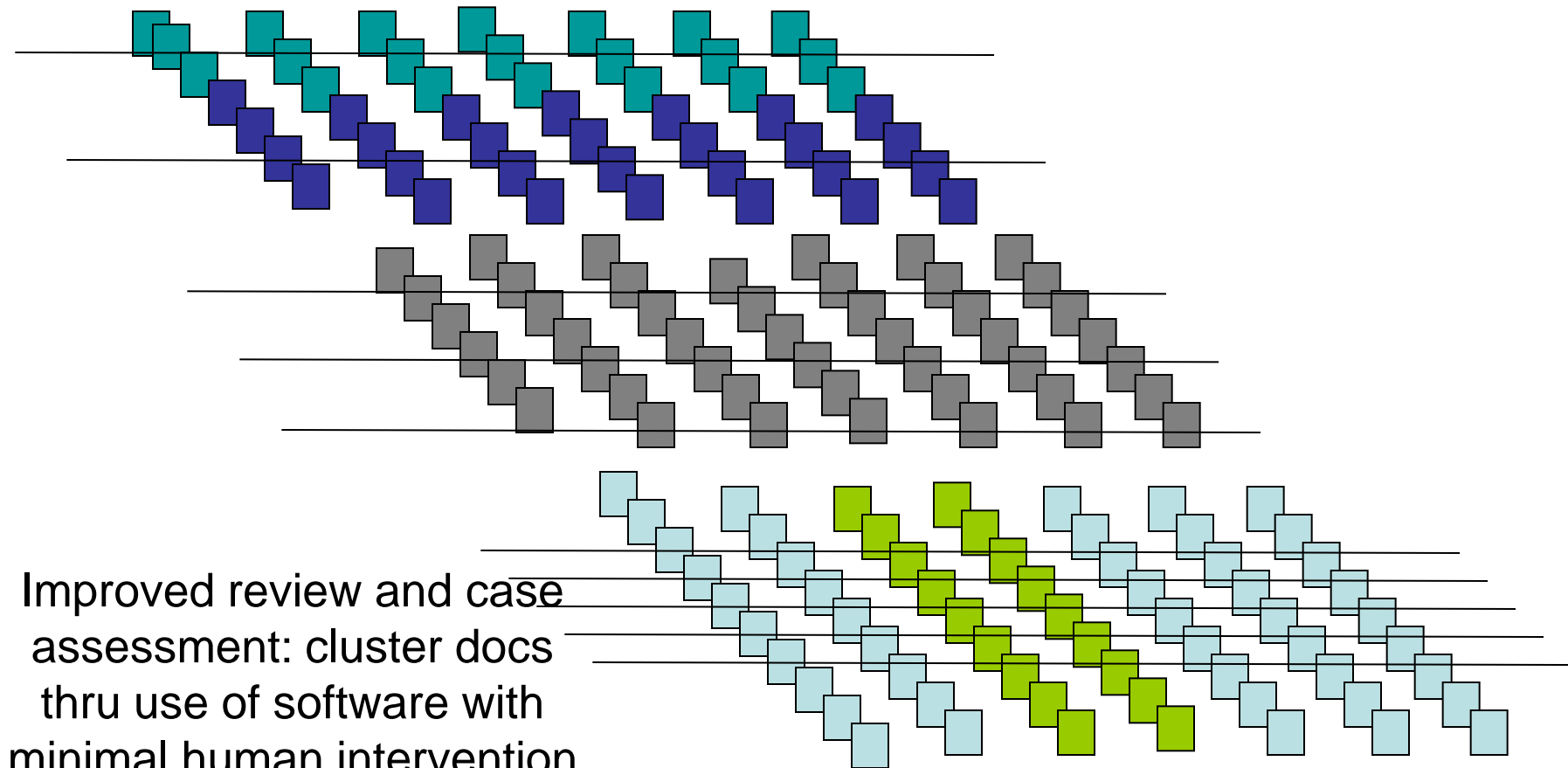


# Latent Semantic Indexing (LSI)

1. SVD (Singular Value Decomposition) assigns each record to a place creating “clusters”
2. “Query” documents are SVD analyzed and placed in the matrix
3. “Hits” and rankings are determined by the distance from clusters



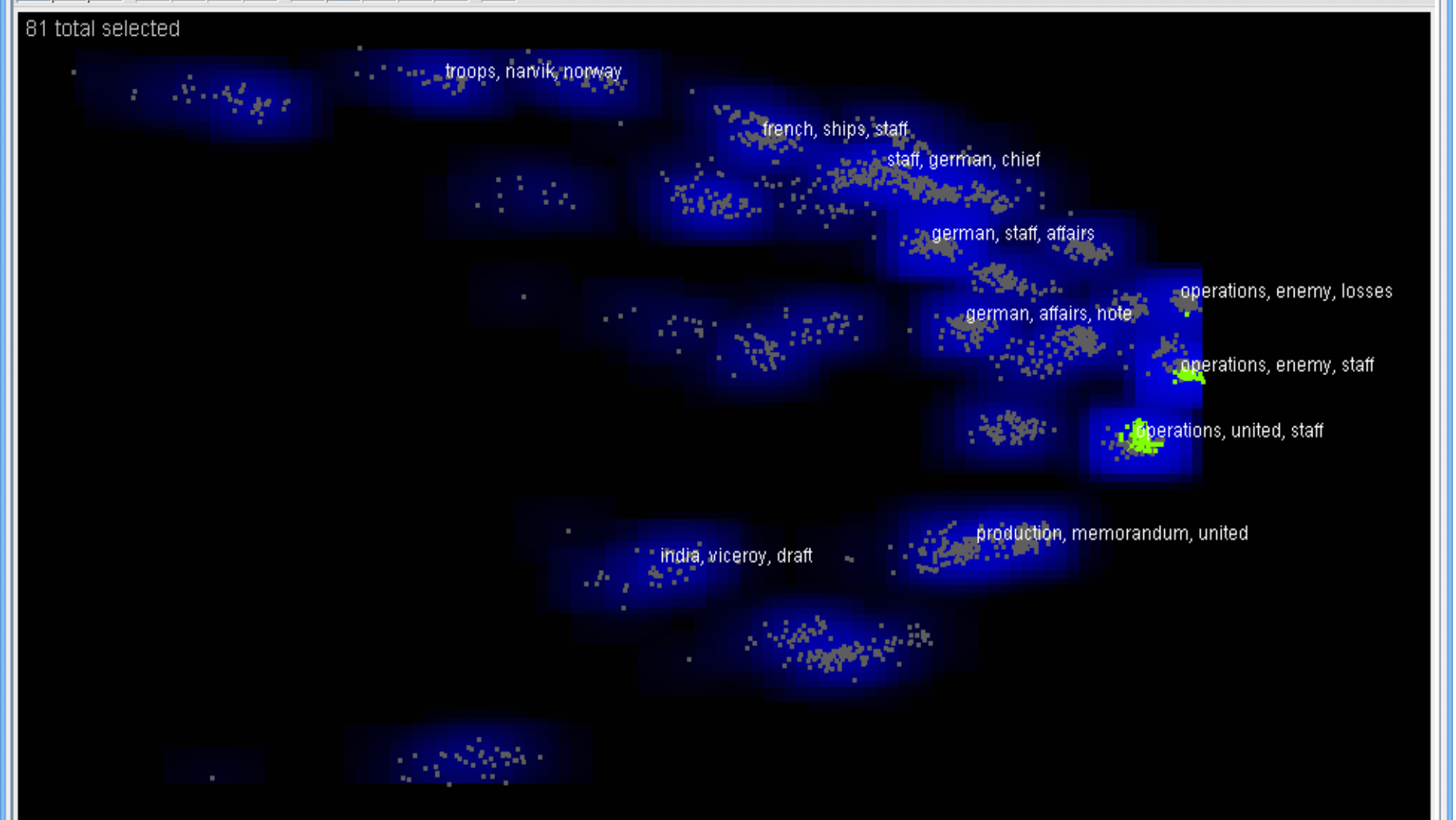
# Emerging New Strategies: “Predictive Analytics”



Improved review and case  
assessment: cluster docs  
thru use of software with  
minimal human intervention  
at front end to code  
“seeded” data set

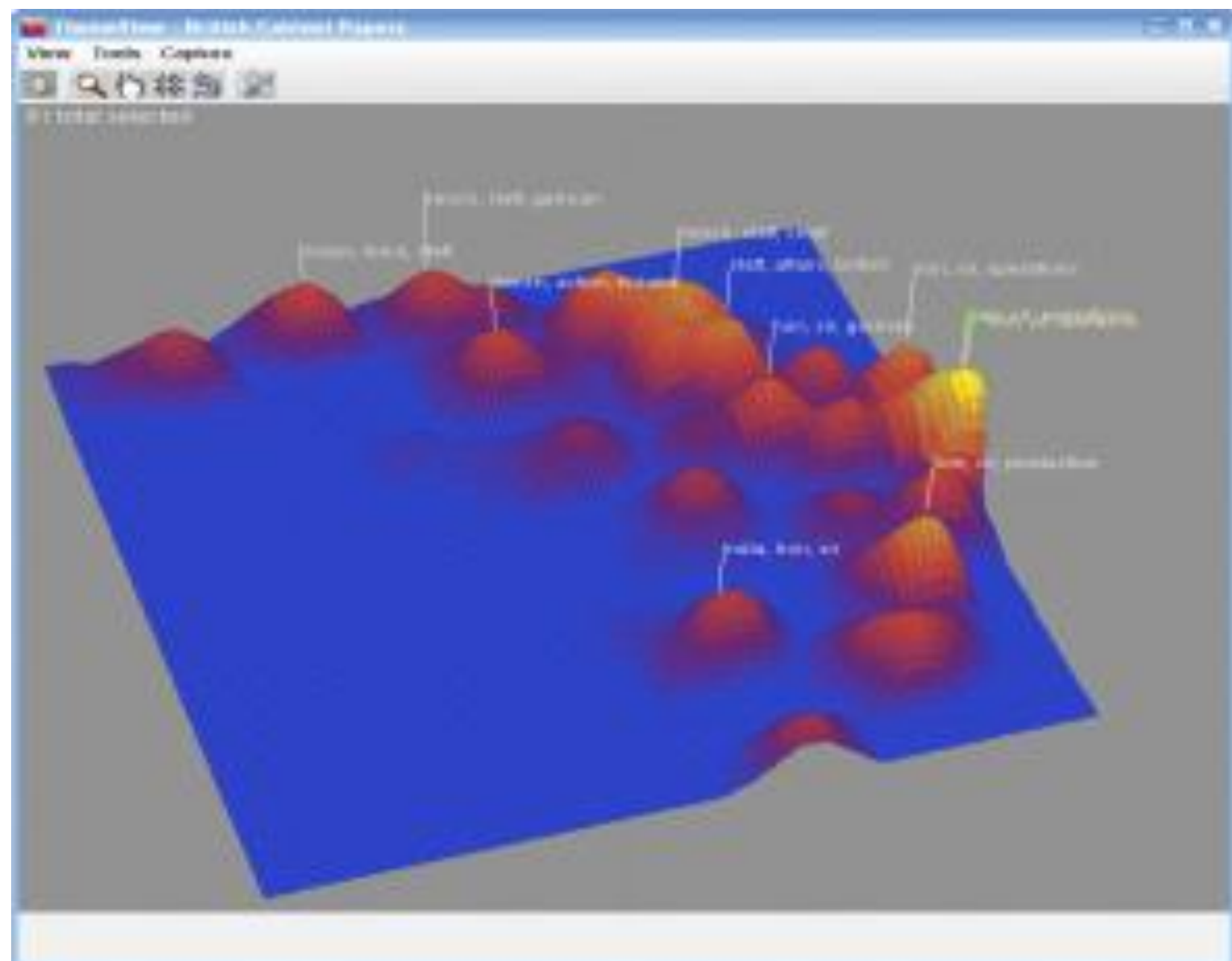
•Slide adapted from Gartner  
Conference

•June 23, 2010 Washington, D.C.



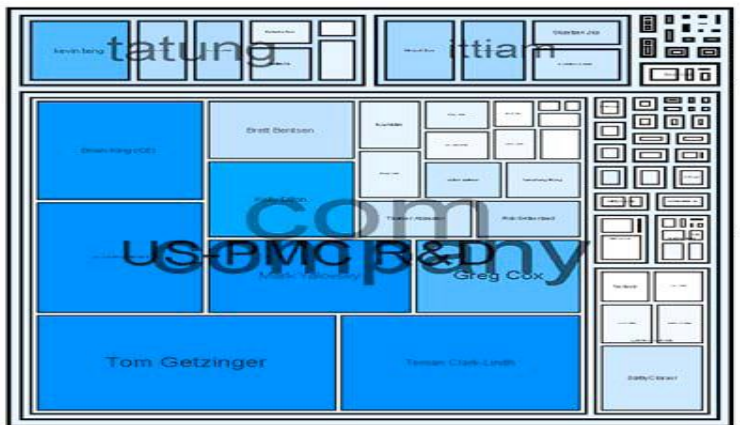
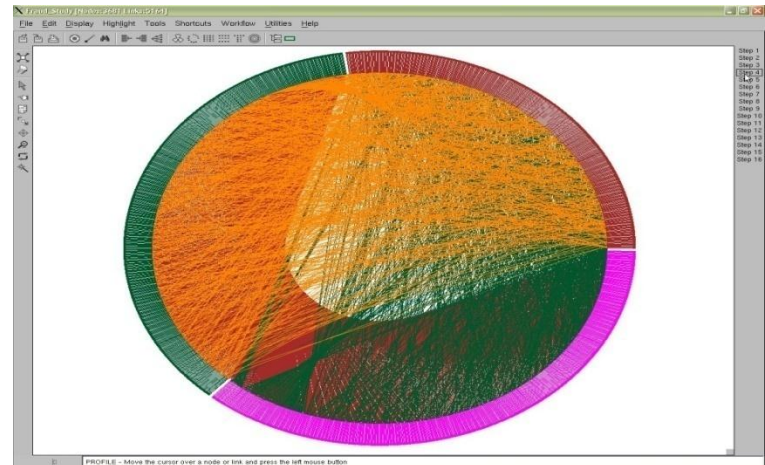
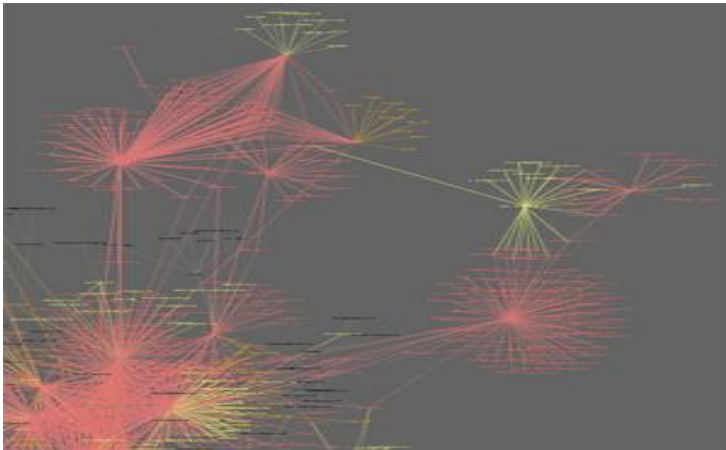
<p>Outliers    </p> <p> hon</p>	<p>Outlier Terms </p> <p></p>
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Select: Click or drag to select docs; Alt-click or -drag to select just colored docs; Ctl-click or -drag to add to current selection; Ctl-shift-click or -drag to remove from selection.



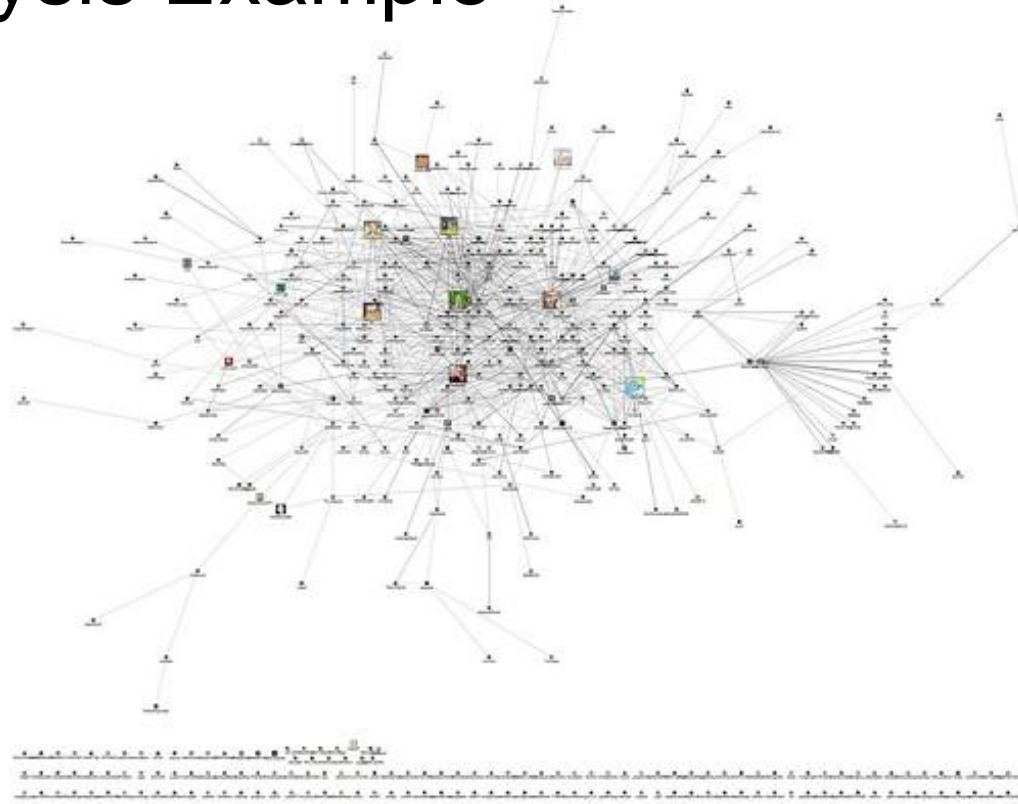
# Visual Analysis Examples

(Presentation by Dr. Victoria Lemieux, Univ. British Columbia,  
at Society of American Archivist Annual Mtg. 2010, Washington, D.C.)



- With acknowledgments to Jeffrey Heer, *Exploring Enron*, <http://hci.stanford.edu/jheer/projects/enron/>,
- Adam Perer, *Contrasting Portraits*, <http://hci.cs.umd.edu/trs/2006-08/2006-08.pdf>,
- and Fernanda Viegas, *Email Conversations*, <http://fernandaviegas.com/email.html>

# •Social Networking/Links Analysis Example



- From Marc Smith
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