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Data Mining the Liberal Arts

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Data Mining the Liberal Arts



What do I know

- about data mining...
- about liberal arts...
- well, I, uh...



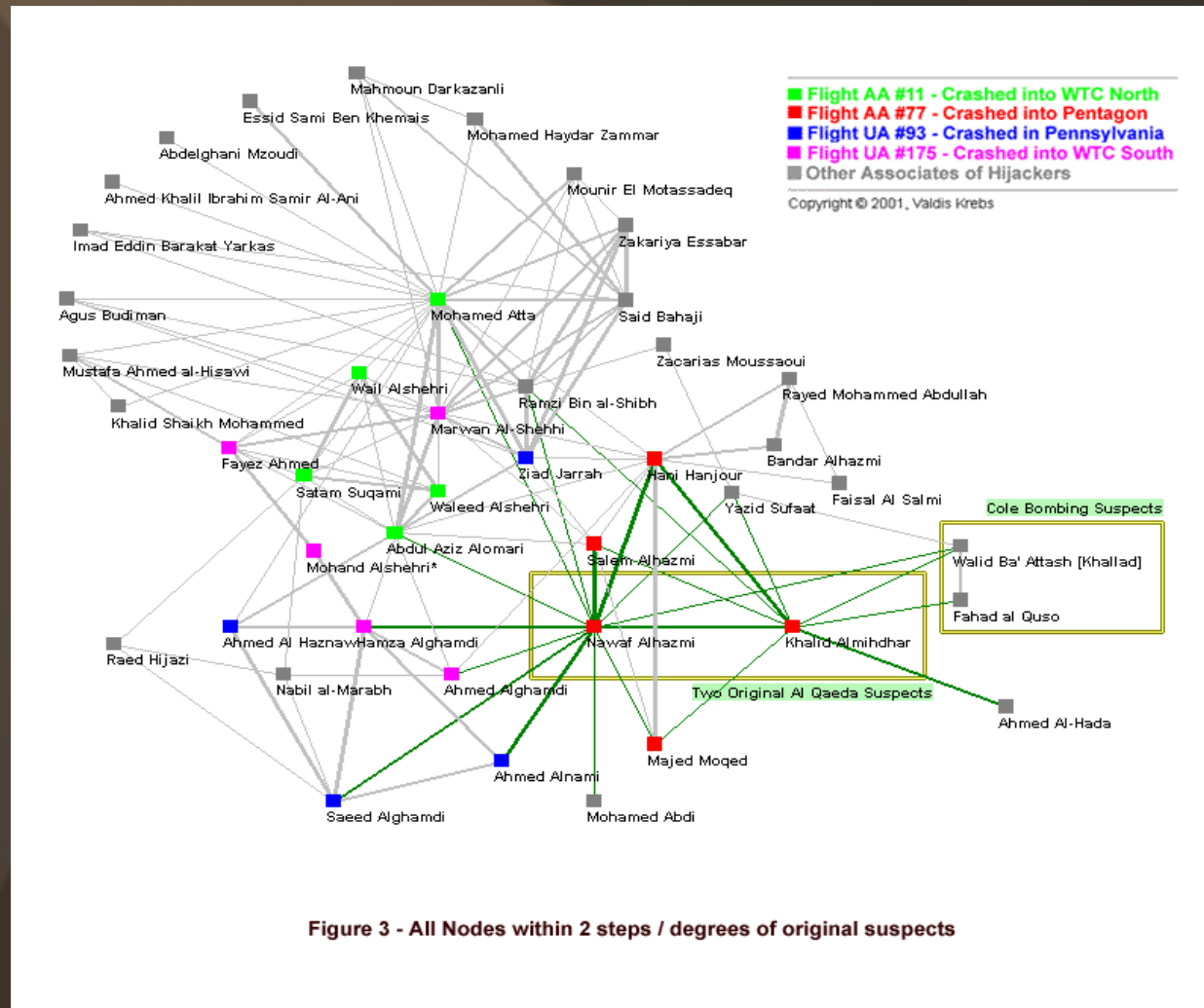
Data Mining Tools

- large data sets (records, text, networks, transactions)
- techniques
 - prediction
 - grouping
 - finding rank, relevance, influence, popularity
 - search for interesting patterns
- can be used to support theories
- can be used to explore domain knowledge

Past usage in Liberal Arts Disciplines

- math, statistics, computer science, ok
- professional programs
- business
- humanities
- arts
- other (help me)

Criminal Justice



Business



Customers Who Bought This Item Also Bought

Big Data at Work: Dispelling the Myths, ... by Thomas H. Davenport	Predictive Analytics: The Power to Predict ... by Eric Siegel	The New Digital Age: Transforming Nations, ... by Eric Schmidt	Data Science for Business: What you ... by Foster Provost	Big Data Analytics For Beginners by Mr. Faraz Rabbani	Big Data For Dummies by Hurwitz
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Classics

- Shakespeare's Othello
 - tragedy ?
 - comedy ?



- Carnegie Mellon University Department of English. (n.d.). DocuScope: Computer-aided rhetorical analysis. Retrieved December 30, 2011
- Witmore, M. (October 26, 2011). Data-mining Shakespeare [video][audio]. (Folger Lecture Series). Washington, DC: Folger Shakespeare Library.

Sociology

- Study by Snijders of habits of middle school girls
- homophily vs. assimilation



Anthropology

- recent paper compared today's society to that of the middle ages
- structure of social networks differs markedly

middle ages village



modern villagers



The small-world effect is a modern phenomenon, Marvel, Martin, Doering, Lusseau, Newman

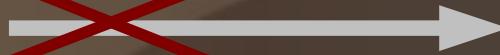
Communications

- What movies have the most impact over the years
- source: wikipedia
- <http://blog.argteam.com/category/data-mining/>
- A History of Film in Wikipedia, Thomas Dimson

Music

- apps:
 - pandora
 - spotify
- research:
 - genre classification
 - singer identification
 - instrument identification
 - mood detection

Fine Art



- crowd sourcing – probably not
- art informed data visualization
- data informed art ?

History

- where's the data?
- windows 1095ad?
- mac version .000001 (centaur)?
- ok, what does google say?



how can data mining help you?

- formulate and articulate a question or problem
- identify and gather data
- support from data mining
- get help

Data

- look for data in online sources
 - wikipedia
 - blogs, news articles, social media
 - archives
- surveys and crowd sourcing
 - mechanical turk
 - games, puzzles, mobile apps
- bibliographic data sets

data mining support

- traditional
 - group and describe
 - predict an outcome
 - search for patterns
- text
 - identify relevant documents
 - search for interesting or unusual patterns
 - sentiment analysis
- social networks

Getting help

- talk to us
- student projects
- data science minor
- partner up



Questions

- contact: scripps@gvsu.edu

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