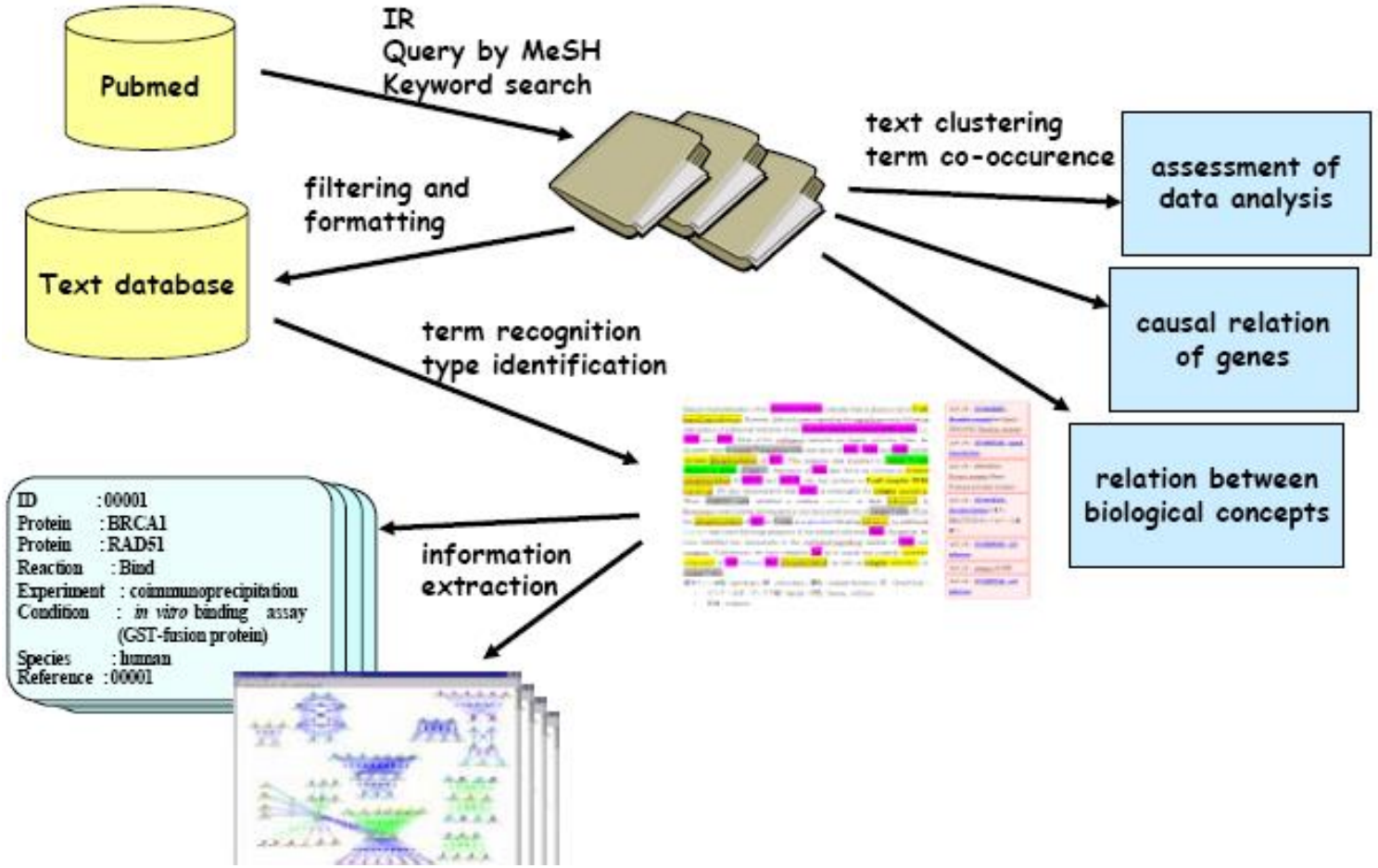
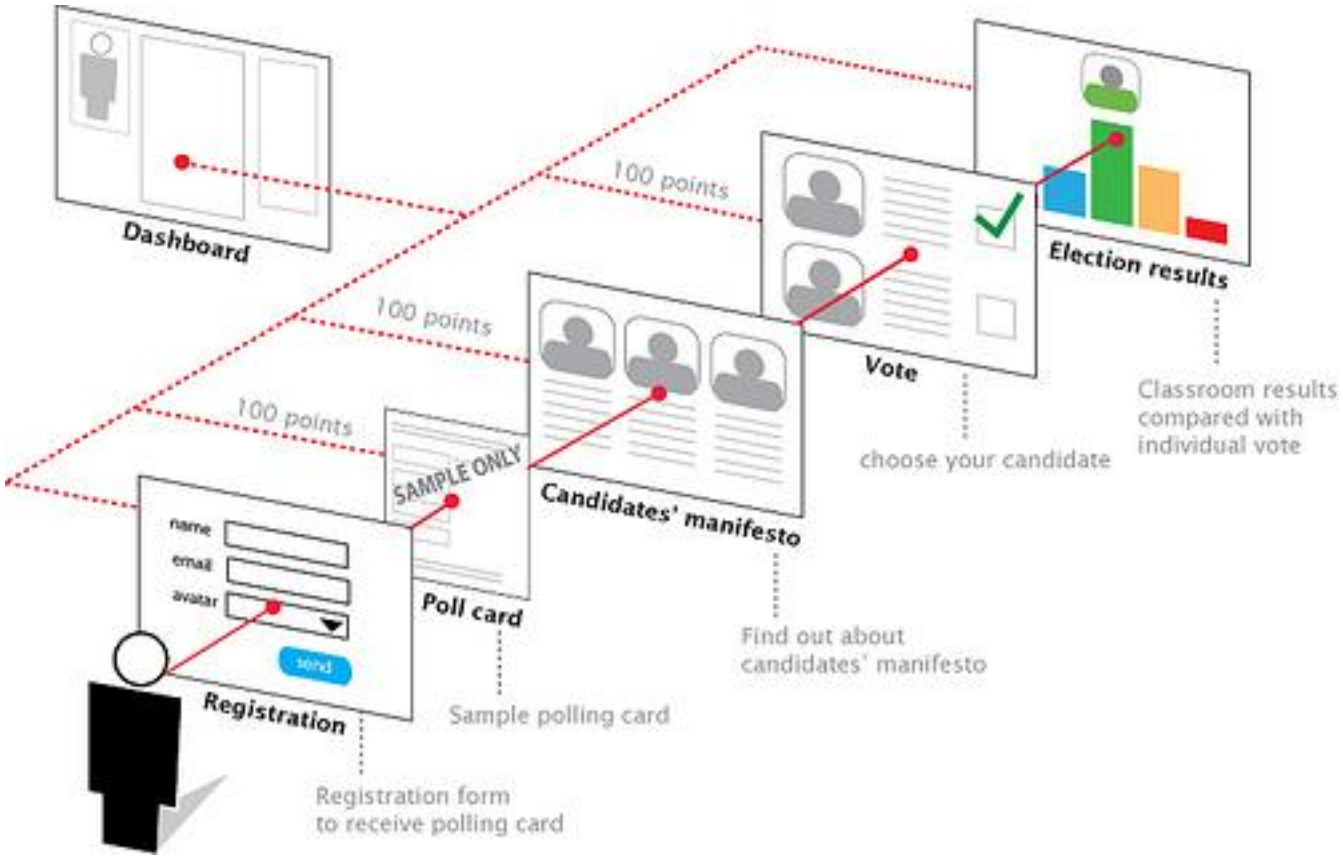
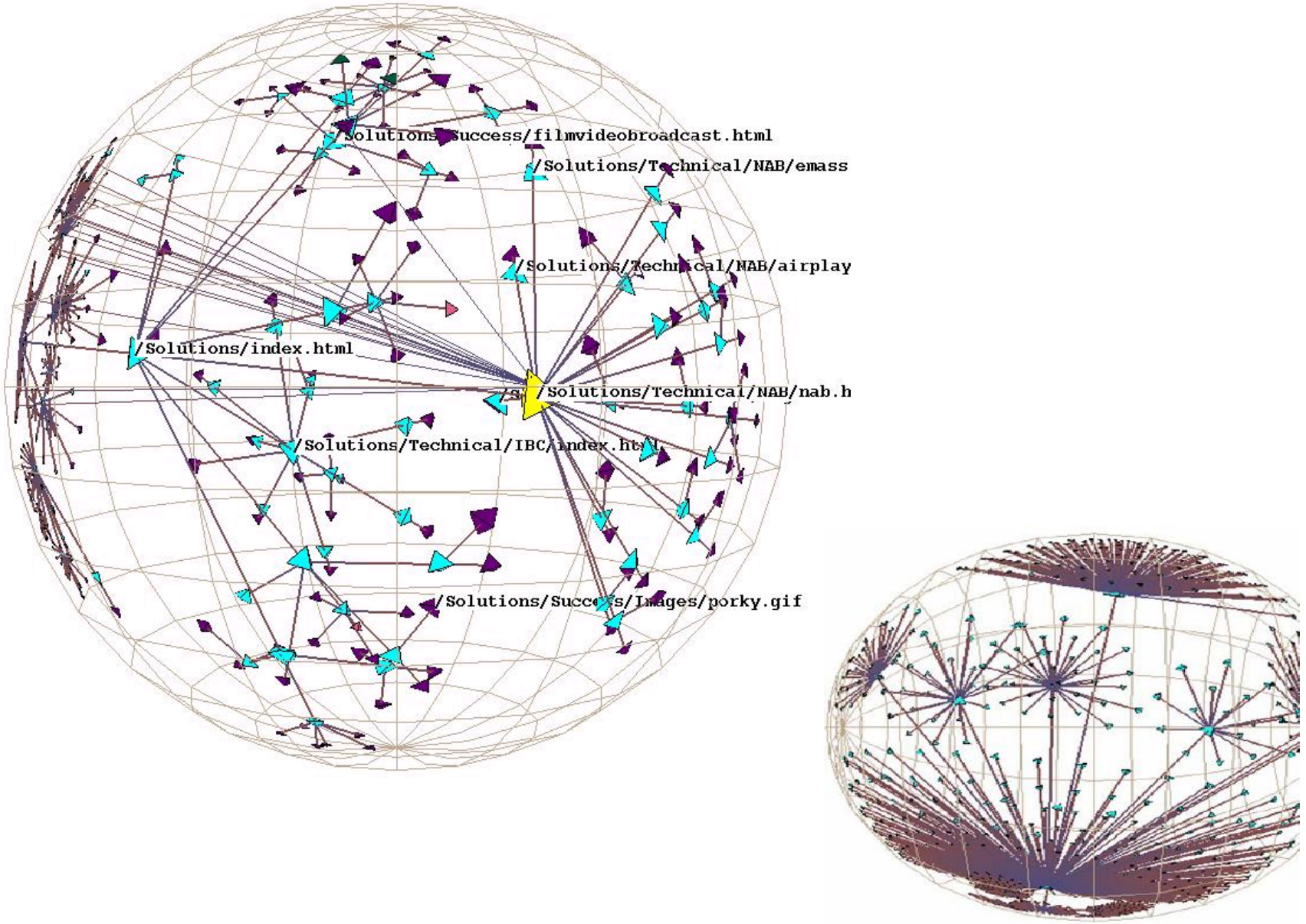
Text Mining vs Text Visualization




Dashboard
100 points
100 points
100 points
Election results
Vote
Candidates' manifesto
SAMPLE ONLY
Poll card
Registration
name
email
avatar
send
Classroom results
compared with
individual vote
choose your candidate
Find out about
candidates' manifesto
Sample polling card
Registration form
to receive polling card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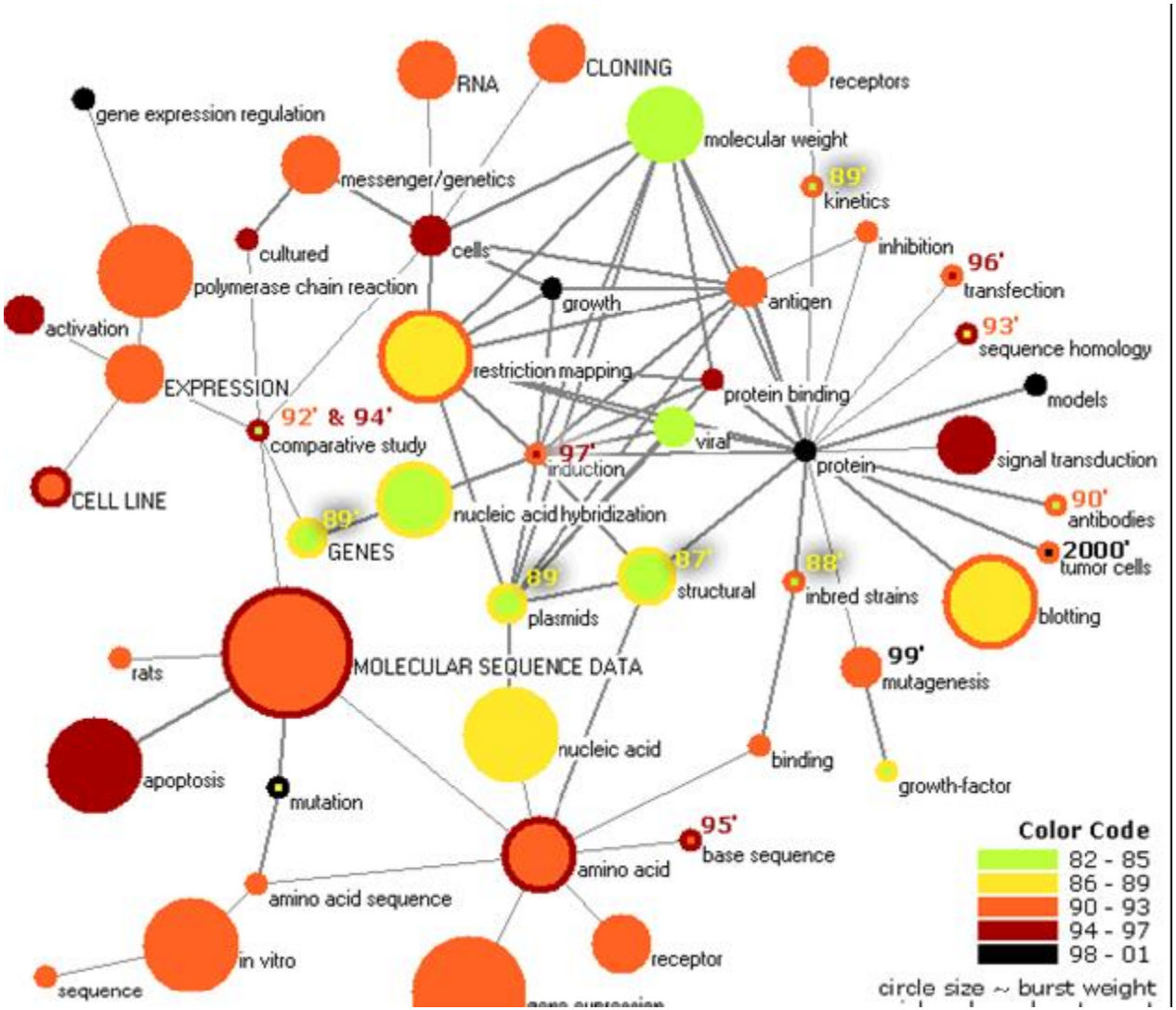
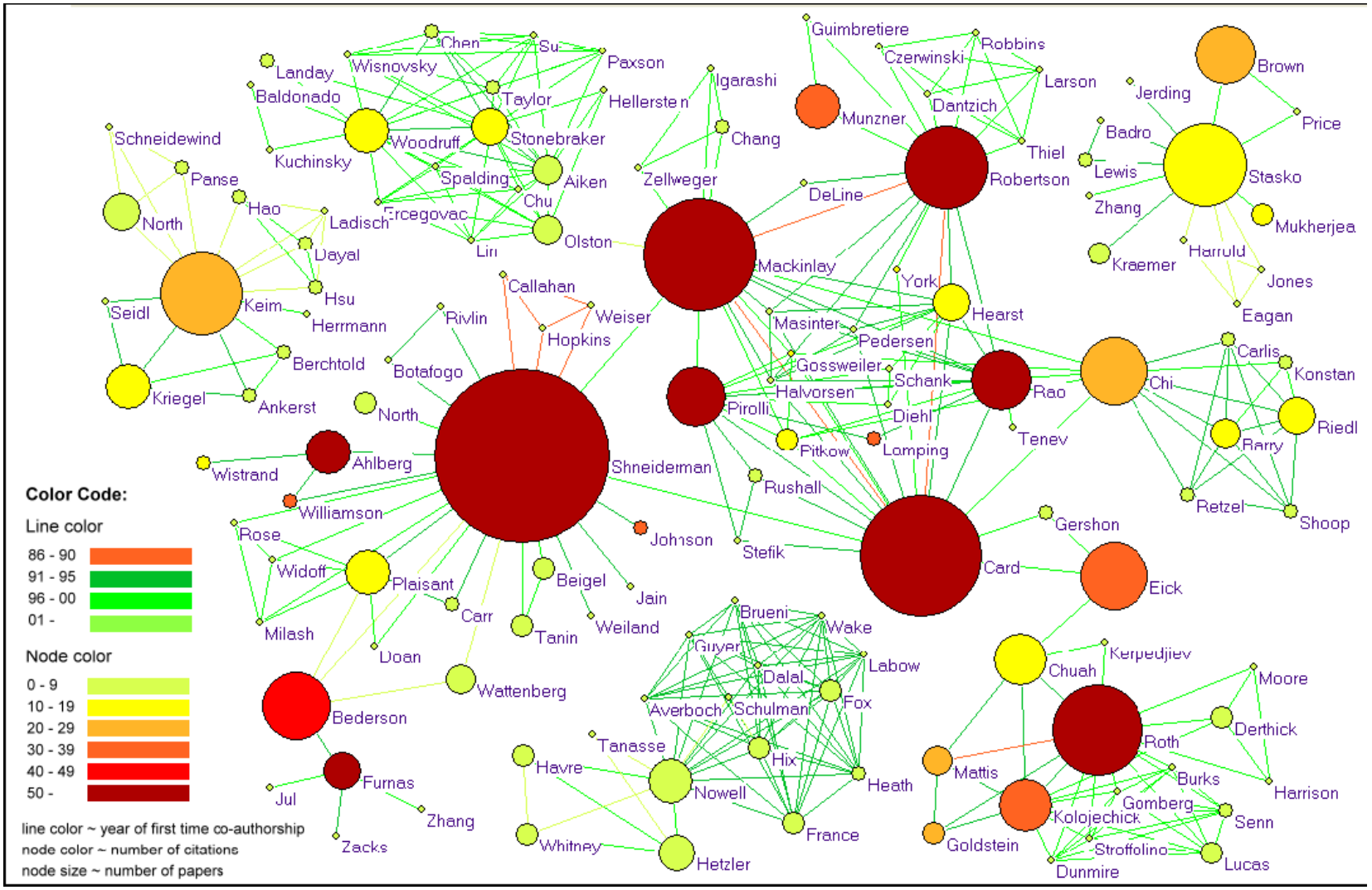
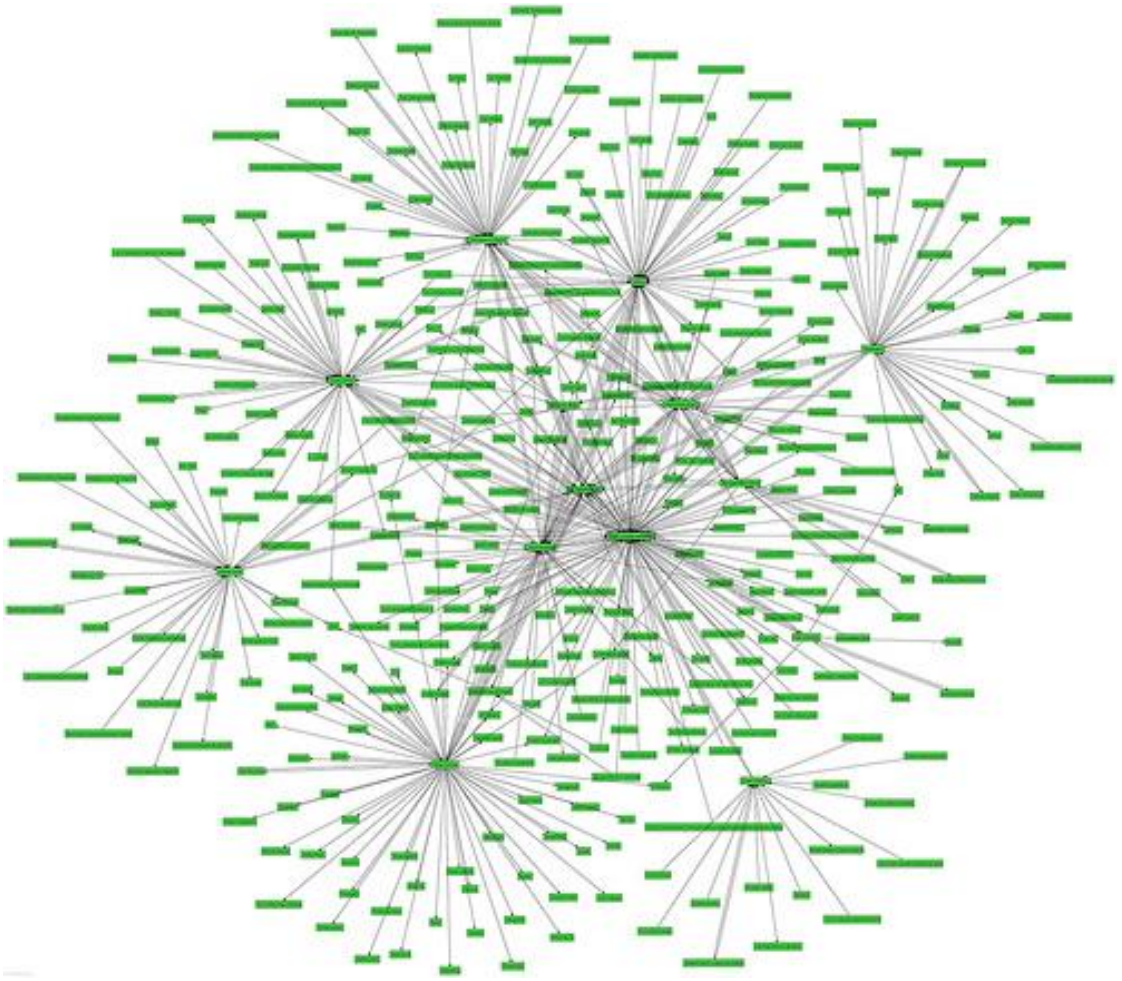
/Solutions/Technical/NAB/emass
/Solutions/Technical/NAB/airplay
/Solutions/index.html
/Solutions/Technical/NAB/nab.h
/Solutions/Technical/IBC/index.html
/Solutions/Success/Images/porky.gif

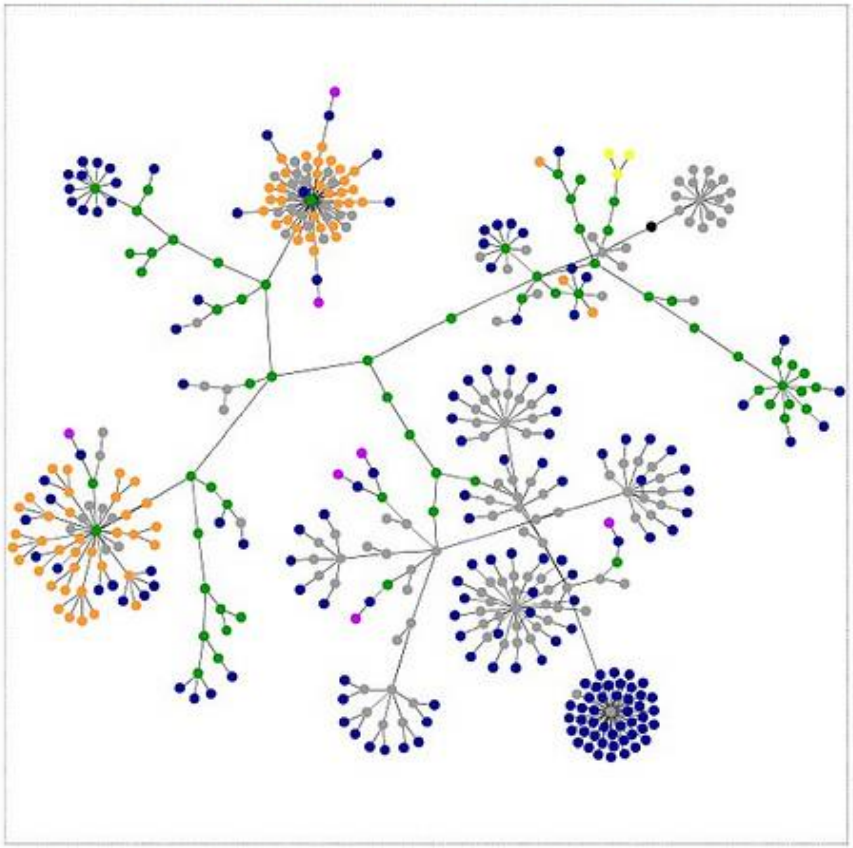

RNA
CLONING
receptors
gene expression regulation
molecular weight
messenger/genetics
89'
kinetics
cultured
cells
inhibition
96'
transfection
polymerase chain reaction
growth
antigen
activation
93'
sequence homology
restriction mapping
protein binding
models
EXPRESSION
92' & 94'
comparative study
viral
97'
induction
protein
signal transduction
CELL LINE
nucleic acid hybridization
90'
antibodies
89'
GENES
2000'
tumor cells
87'
structural
88'
inbred strains
89'
plasmids
blotting
rats
MOLECULAR SEQUENCE DATA
99'
mutagenesis
nucleic acid
binding
apoptosis
growth-factor
mutation
95'
base sequence
amino acid
amino acid sequence
in vitro
receptor
sequence
Color Code
82 - 85
86 - 89
90 - 93
94 - 97
98 - 01
circle size ~ burst weight


Color Code:
Line color
86 - 90
91 - 95
96 - 00
01 -
Node color
0 - 9
10 - 19
20 - 29
30 - 39
40 - 49
50 -
line color ~ year of first time co-authorship
node color ~ number of citations
node size ~ number of papers
Chen
Su
Paxson
Wisnovsky
Landay
Baldonado
Taylor
Hellerstein
Woodruff
Stonebraker
Kuchinsky
Spalding
Aiken
Chu
Olston
Lin
Igarashi
Chang
Zellweger
Guimbretiere
Robbins
Czerwinski
Larson
Munzner
Dantzich
Thiel
Robertson
DeLine
Mackinlay
Brown
Jerding
Price
Badro
Lewis
Stasko
Zhang
Mukherjea
Kraemer
Harrold
Jones
Eagan
Schneidewind
Panse
Hao
Ladisch
North
Dayal
Hsu
Seidl
Keim
Herrmann
Berchtold
Kriegel
Ankerst
Callahan
Weiser
Hopkins
Rivlin
Botafogo
North
Shneiderman
Ahlberg
Wistrand
Williamson
Rose
Widoff
Plaisant
Milash
Doan
Carr
Tanin
Beigel
Weiland
Jain
Johnson
Wattenberg
Bederson
Furnas
Jul
Zhang
Zacks
York
Hearst
Masinter
Pedersen
Gossweiler
Schank
Halvorsen
Pirolli
Diehl
Pitkow
Lamping
Rao
Tenev
Rushall
Stefik
Card
Gershon
Eick
Chi
Carlis
Konstan
Riedl
Barry
Retzel
Shoop
Brueni
Wake
Guyer
Labow
Dalal
Fox
Averboch
Schulman
Tanasse
Hix
Heath
Havre
Nowell
France
Whitney
Hetzler
Kerpedjiev
Chuah
Moore
Derthick
Roth
Mattis
Burks
Harrison
Gomberg
Kolojechick
Senn
Goldstein
Stroffolino
Dunmire
Lucas



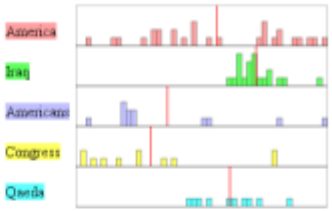
http://oakhazelnut.com

Create the graph of any another webpage | About the author of this applet



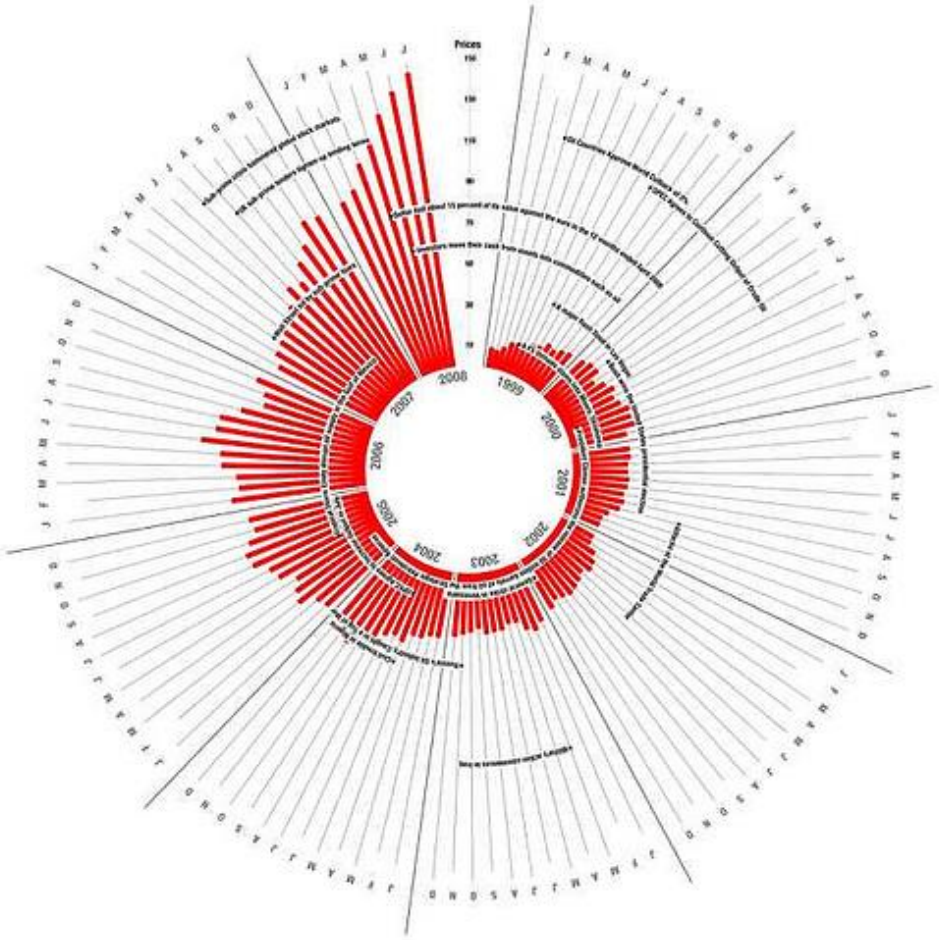
State of the Union Address, 2007

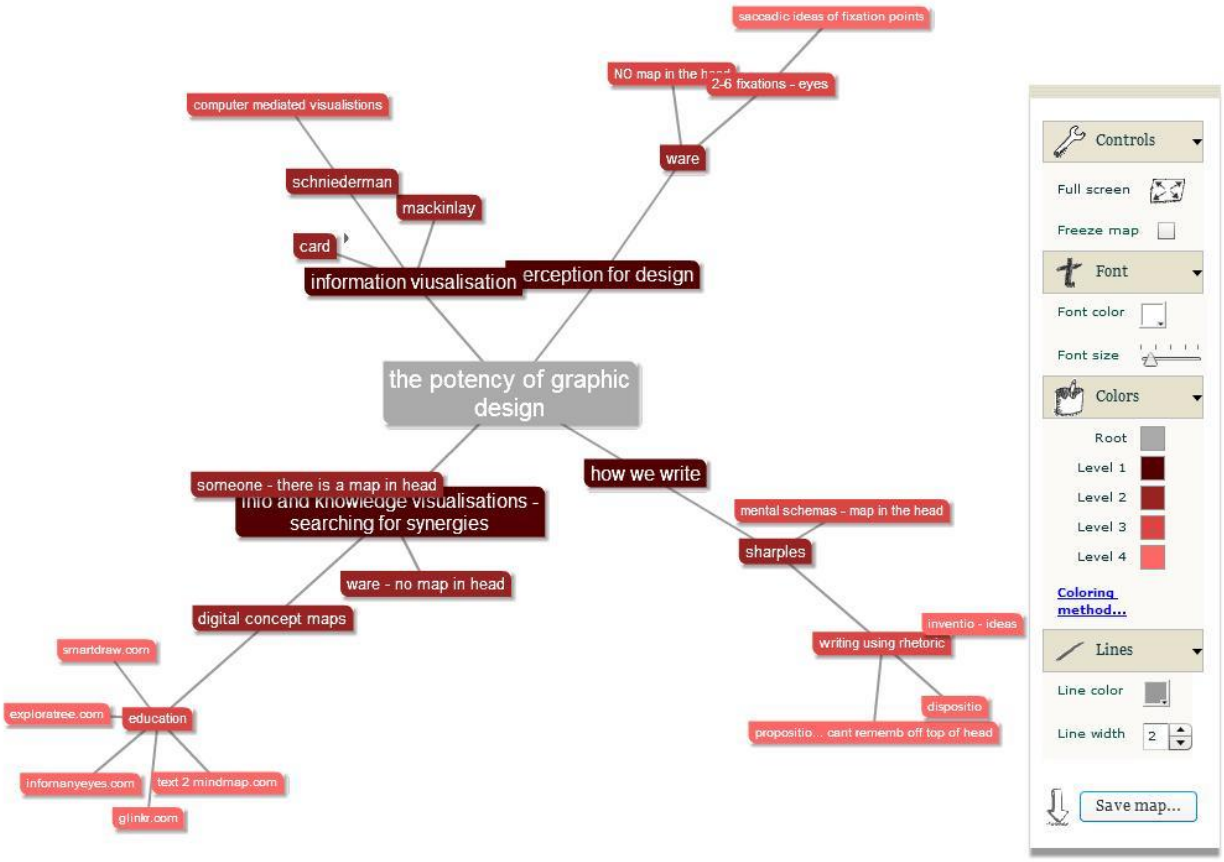
Click on question mark to load a new file...



... ve them to future generations; to guard America against all evil, and to keep faith wit ...
... Spreading opportunity and hope in America also requires public schools that give childr ...
... No Child Left Behind Act has worked for America's children -- and I ask Congress to rea ...
... requires an immigration system worthy of America -- with laws that are fair and borders ...
... on a stable supply of energy that keeps America's economy running and America's environ ...
... It's in our vital interest to diversify America's energy supply -- the way forward is t ...
... sensitive ways. And to further protect America against severe disruptions to our oil s ...
... America is on the verge of technological breakthroughs that will enable us to live our ...
... From the start, America and our allies have protected our people by staying on the offe ...
... g authors to be used in attacks against America. And just last August, British authorit ...
... world. And so long as that's the case, America is still a nation at war. ...
... s extremists who are just as hostile to America, and are also determined to dominate th ...
... he great question of our day is whether America will help men and women in the Middle E ...
... r. Many in this chamber understand that America must not fail in Iraq, because you unde ...

American	Sunni
Middle	Speaker
East	Afghanistan
Senate	years
Juke	united
Iran	own
Baghdad	children
work	world
take	war


Prices
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008


the potency of graphic design
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erception for design
computer mediated visualistions
schniederman
mackinlay
card
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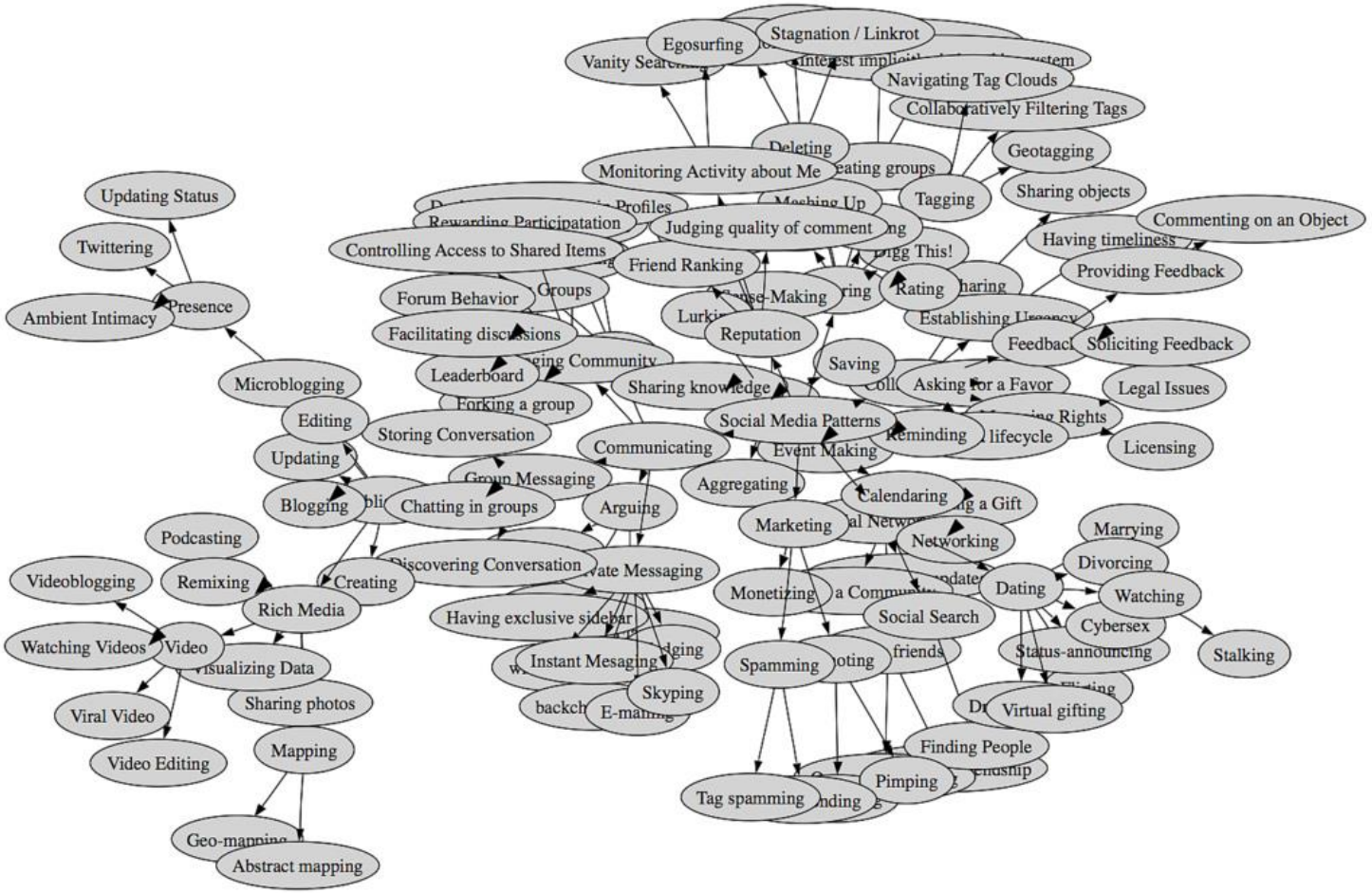
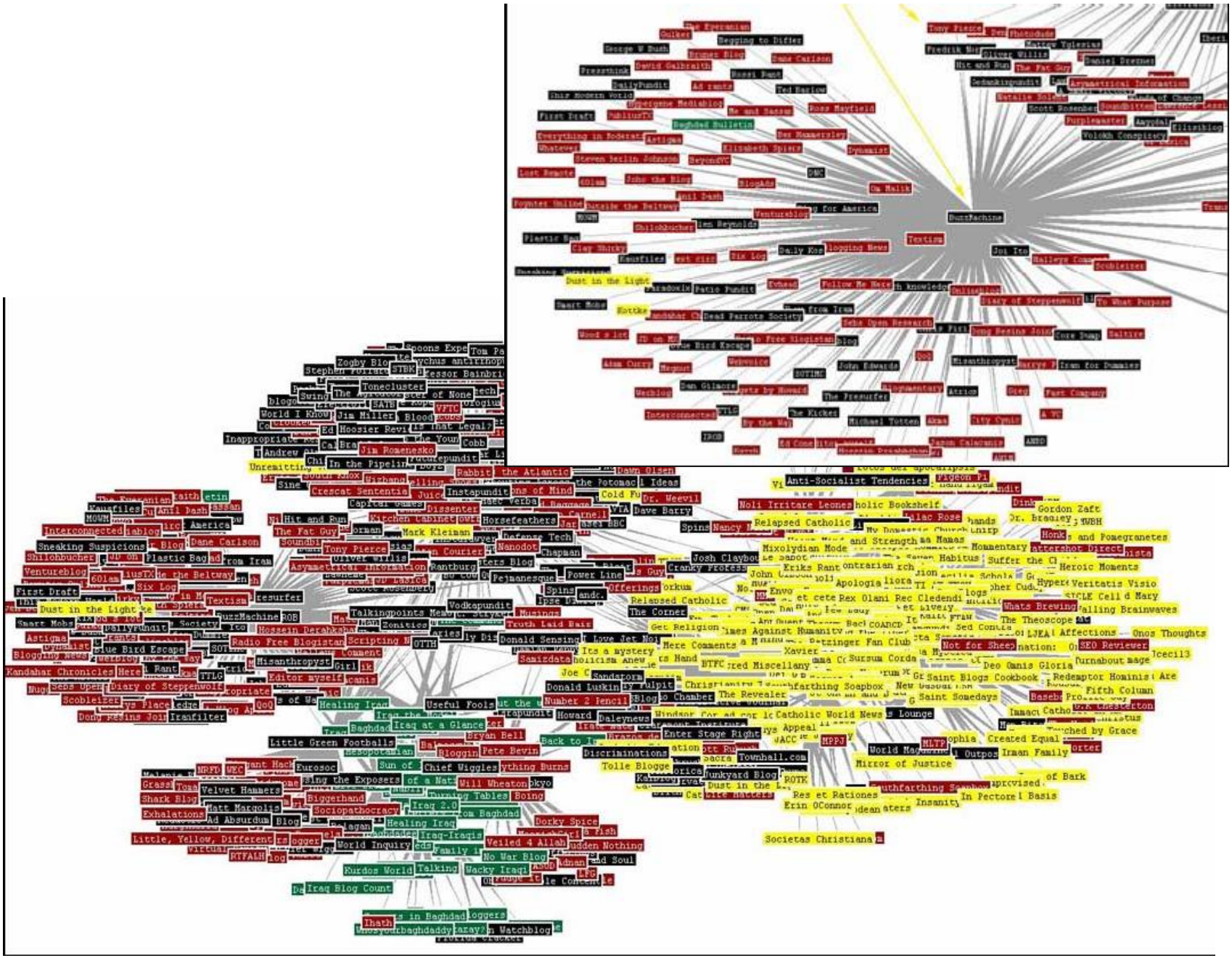
NO map in the h
2-6 fixations - eyes
ware
how we write
mental schemas - map in the head
sharples
inventio - ideas
writing using rhetoric
dispositio
propositio... cant rememb off top of head
info and knowledge visualisations - searching for synergies
someone - there is a map in head
ware - no map in head
digital concept maps
smartdraw.com
exploratree.com
education
infomanyeyes.com
text 2 mindmap.com
glinkr.com
Controls
Full screen
Freeze map
Font
Font color
Font size
Colors
Root
Level 1
Level 2
Level 3
Level 4
Coloring method...
Lines
Line color
Line width
2
Save map...


Egosurfing
Stagnation / Linkrot
Navigating Tag Clouds
Collaboratively Filtering Tags
Deleting
Geotagging
Monitoring Activity about Me
Tagging
Sharing objects
Commenting on an Object
Having timeliness
Providing Feedback
Judging quality of comment
Controlling Access to Shared Items
Friend Ranking
Rating
Establishing Urgency
Feedback
Soliciting Feedback
Forum Behavior
Groups
Reputation
Facilitating discussions
Saving
Leaderboard
Sharing knowledge
Asking for a Favor
Legal Issues
Forking a group
Social Media Patterns
Reminding
Licensing
Storing Conversation
Communicating
Event Making
Updating
Aggregating
Calendaring
Chatting in groups
Arguing
Marketing
Networking
Podcasting
Discovering Conversation
Creating
Remixing
Rich Media
Monetizing
Dating
Marrying
Divorcing
Watching
Videoblogging
Having exclusive sidebar
Social Search
Cybersex
Watching Videos
Video
Instant Mesaging
Spamming
Status-announcing
Stalking
Visualizing Data
Skyping
Virtual gifting
Sharing photos
Viral Video
Finding People
Mapping
Pimping
Video Editing
Tag spamming
Geo-mapping
Abstract mapping
Updating Status
Twittering
Presence
Ambient Intimacy
Microblogging
Editing
Updating
Blogging


BuzzMachine
Instapundit
Glenn Reynolds
Dan Gillmor
Jeff Jarvis
Jay Rosen
Dave Winer
Doc Searls
Hugh Hewitt
Michelle Malkin
Andrew Sullivan
Jim Romenesko
Dave Barry
Josh Claybourn
Crooked Timber
Volokh Conspiracy
Eschaton
Daily Kos
Talking Points Memo
Power Line
Little Green Footballs
Instapundit
Glenn Reynolds
Dan Gillmor
Jeff Jarvis
Jay Rosen
Dave Winer
Doc Searls
Hugh Hewitt
Michelle Malkin
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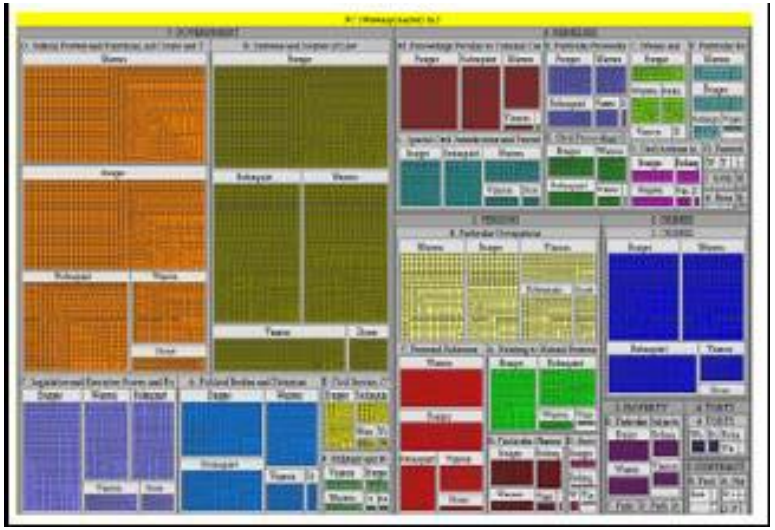
Volokh Conspiracy
Eschaton
Daily Kos
Talking Points Memo
Power Line
Little Green Footballs



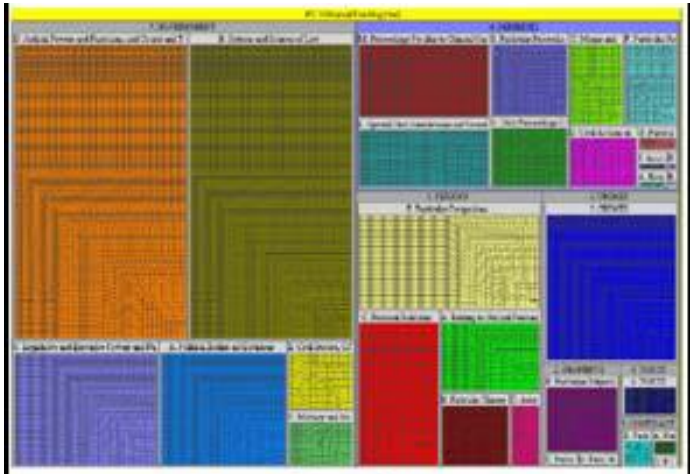
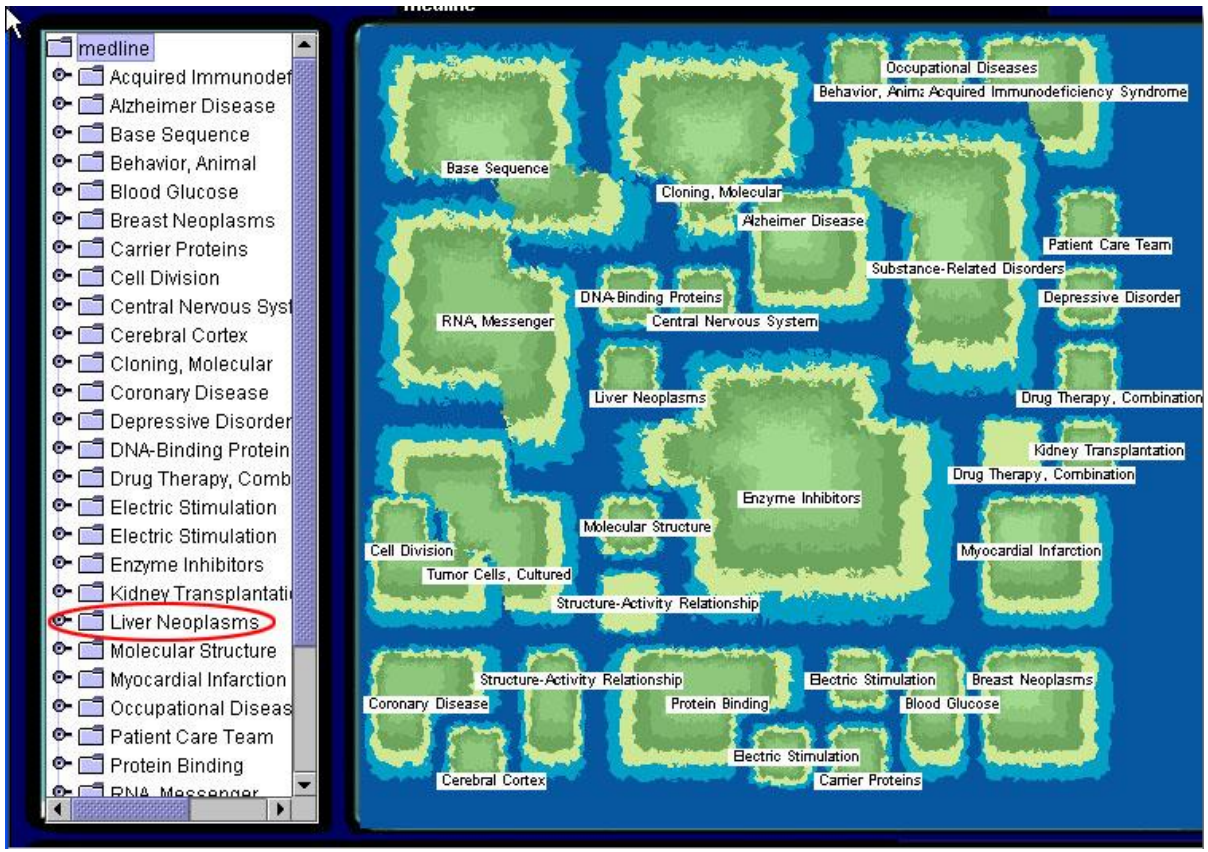


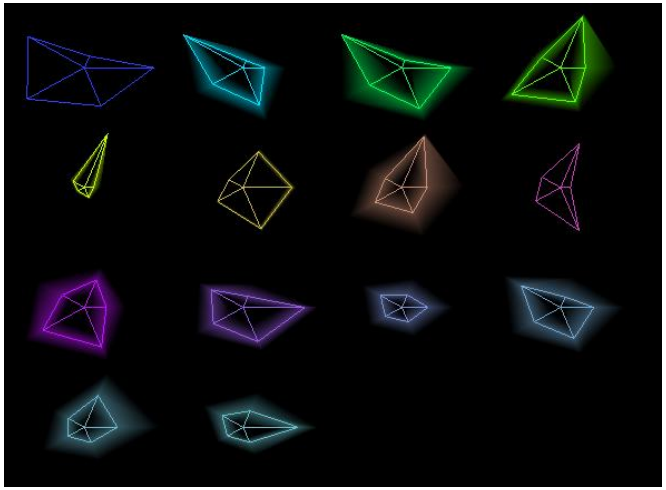
Figure 5

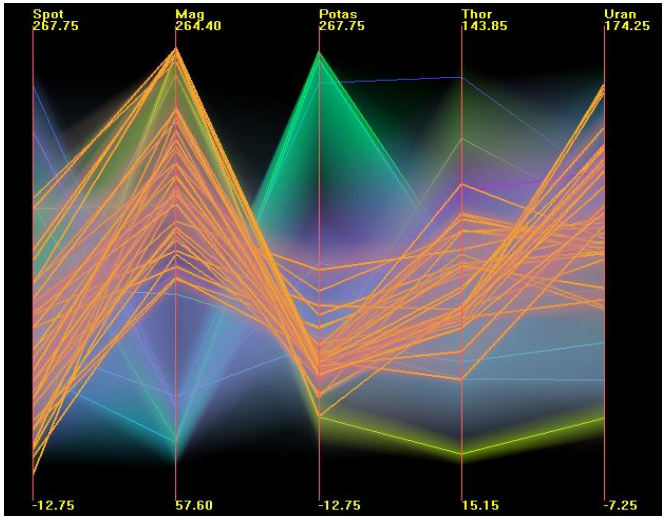
Figure 5 is a portrayal of all topics grouped by West Category and Sub-Category over the entire length of the

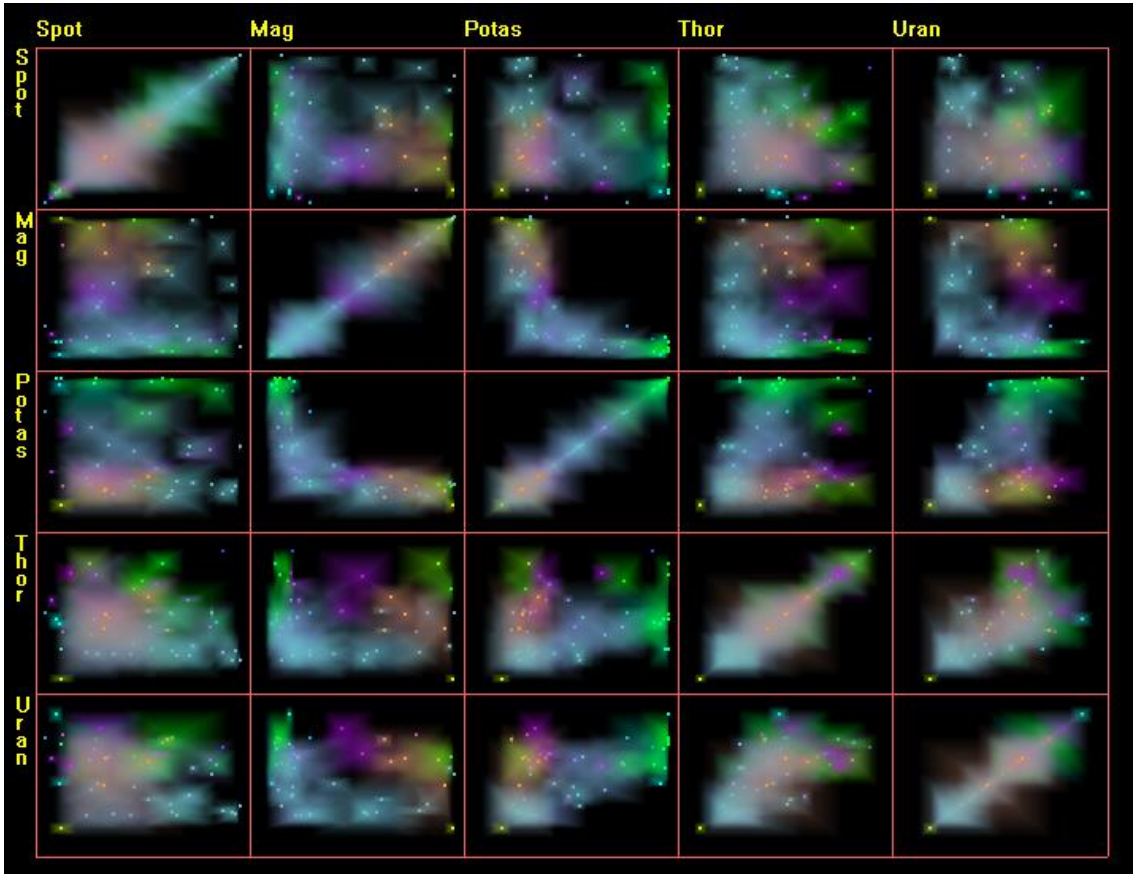

medline
Acquired Immunodef
Alzheimer Disease
Base Sequence
Behavior, Animal
Blood Glucose
Breast Neoplasms
Carrier Proteins
Cell Division
Central Nervous Syst
Cerebral Cortex
Cloning, Molecular
Coronary Disease
Depressive Disorder
DNA-Binding Protein
Drug Therapy, Comb
Electric Stimulation
Electric Stimulation
Enzyme Inhibitors
Kidney Transplantati
Liver Neoplasms
Molecular Structure
Myocardial Infarction
Occupational Diseas
Patient Care Team
Protein Binding
RNA, Messenger
Occupational Diseases
Behavior, Anima
Acquired Immunodeficiency Syndrome
Base Sequence
Cloning, Molecular
Alzheimer Disease
Patient Care Team
Substance-Related Disorders
DNA-Binding Proteins
Depressive Disorder
RNA, Messenger
Central Nervous System
Liver Neoplasms
Drug Therapy, Combination
Kidney Transplantation
Drug Therapy, Combination
Enzyme Inhibitors
Molecular Structure
Cell Division
Myocardial Infarction
Tumor Cells, Cultured
Structure-Activity Relationship
Structure-Activity Relationship
Electric Stimulation
Breast Neoplasms
Coronary Disease
Protein Binding
Blood Glucose
Electric Stimulation
Cerebral Cortex
Carrier Proteins

Liver Neoplasms
Cloning, Molecular
Coronary Disease
Depressive Disorder
DNA-Binding Protein
Drug Therapy, Comb
Electric Stimulation
Electric Stimulation
Enzyme Inhibitors
Kidney Transplantati
Liver Neoplasms
Antibodies, Bacte
Carcinoma, Hepa
Cell Survival
Colonic Neoplasi
Colorectal Neopl
Hepatitis B
Liver Cirrhosis
Liver Diseases
Pancreatic Neopl
Molecular Structure
Myocardial Infarction
Occupational Diseas
Patient Care Team
Protein Binding
RNA, Messenger
Structure-Activity Rela
Substance-Related D
Liver Cirrhosis
Hepatitis B
Pancreatic Neoplasms
Carcinoma, Hepatocellular
Colorectal Neoplasms
Colonic Neoplasms
Liver Diseases
Cell Survival
Antibodies, Bacterial

Examples of Data Clustering







- How knowledge is described in biological texts?

- A text = background + main (protein + chemical + gene + function + reaction + cell/tissue + species + other terms)

- Knowledge of proteins and protein interactions can be extracted from texts.

- Other knowledge is required to understand the texts?

- protein -> interaction -> function!

Mining → Visualization

Terms of Functions

cell growth, cell proliferation, reproduction, fission,,,
growth hormone stimulus, growth hormone response,,,
gene expression, cell cycle, chromatin remodeling,,,

What is Function?

- Cell level function
  - Cell growth and maintenance
  - Gene regulation
  - Transport
  - Cell differentiation
  - Stress response
- Body level function
  - Immune system
  - Endocrine system
  - Sensory system
  - Metabolism
  - Development
  - Disease/Cancer

Pathway vs TV

?