

## Concept Mapping For Librarians

### Collaborating

- Creation
- Organization
- Communication

### Designing

- Content
- Concepts
- Relationships

### Teaching

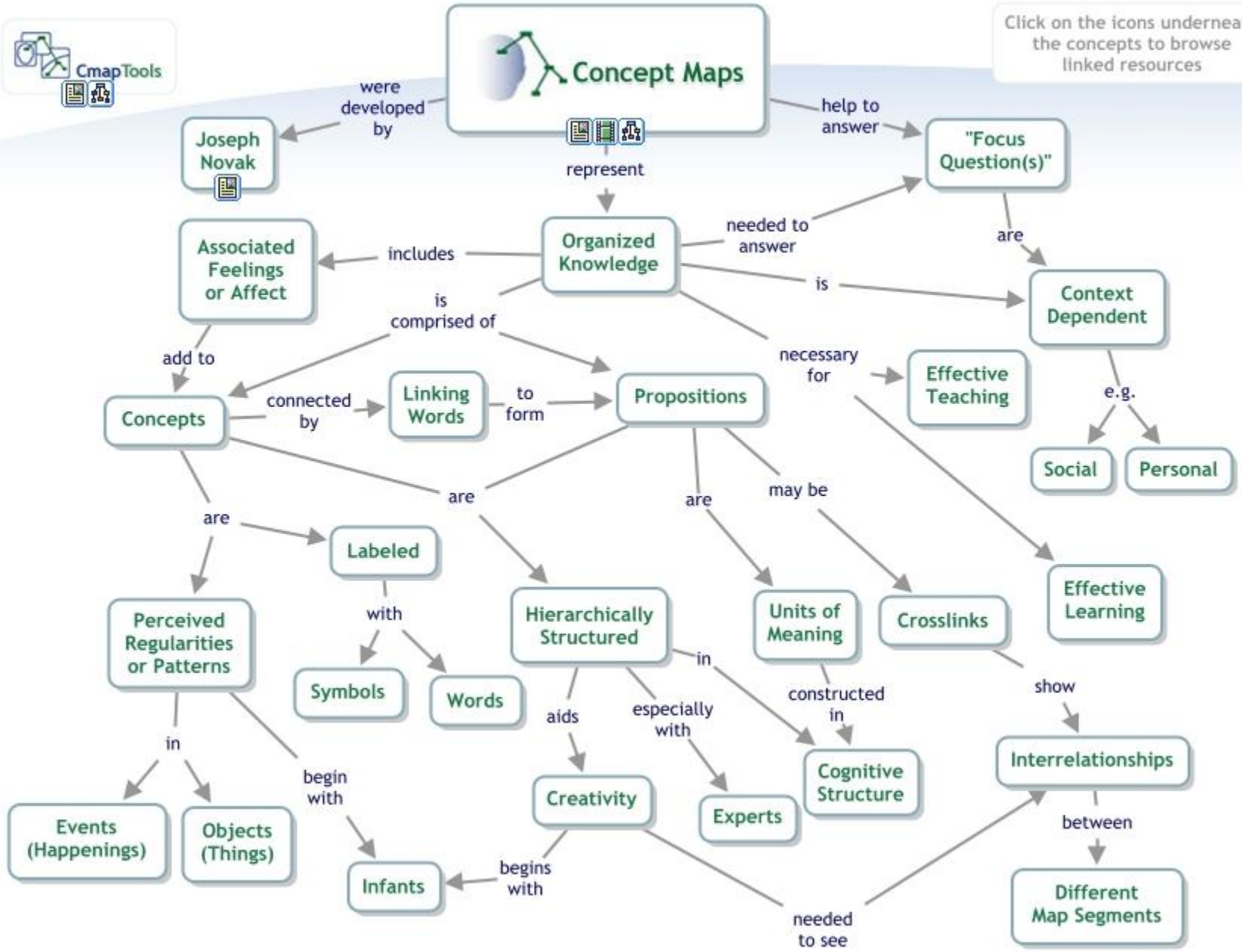
- Active learning
- Demonstration
- Evaluation

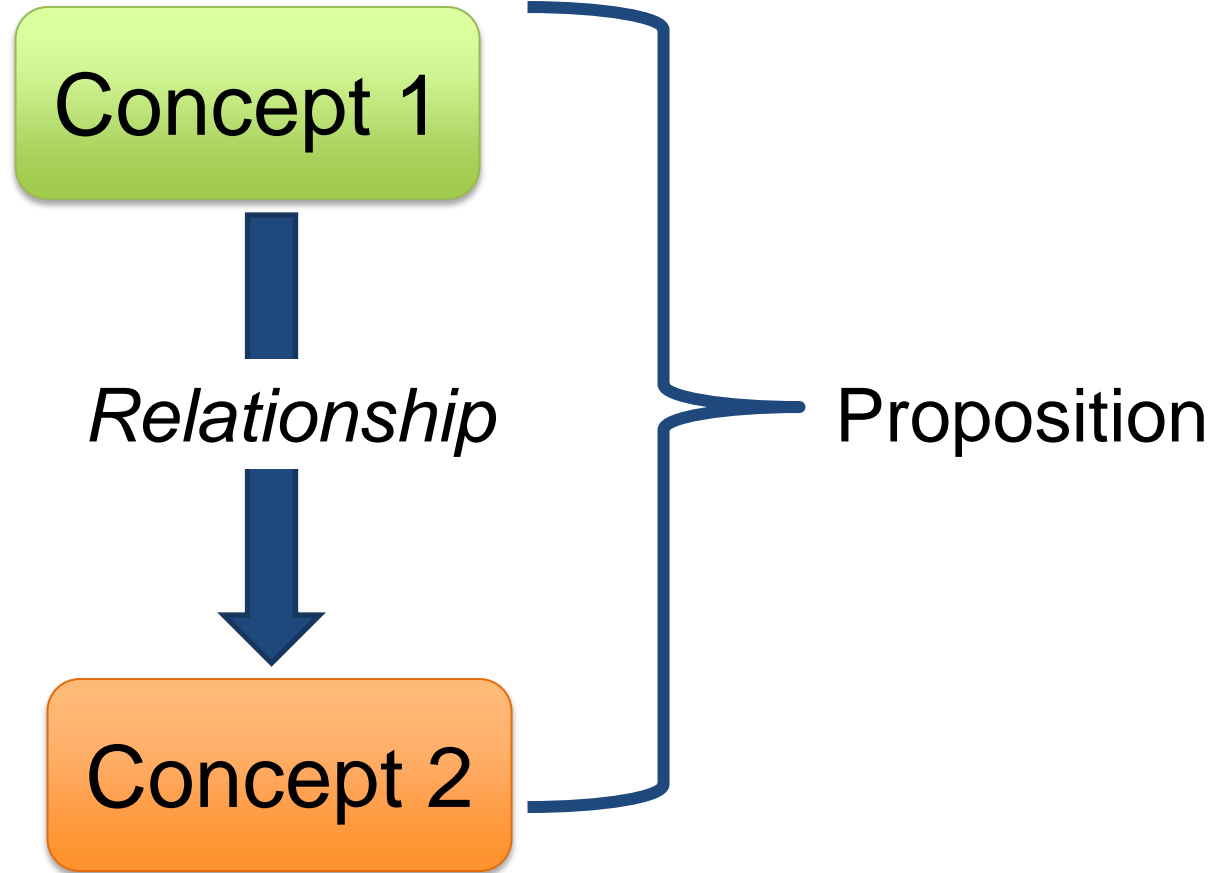
Examples

April Colosimo & Megan Fitzgibbons,  
November 2010

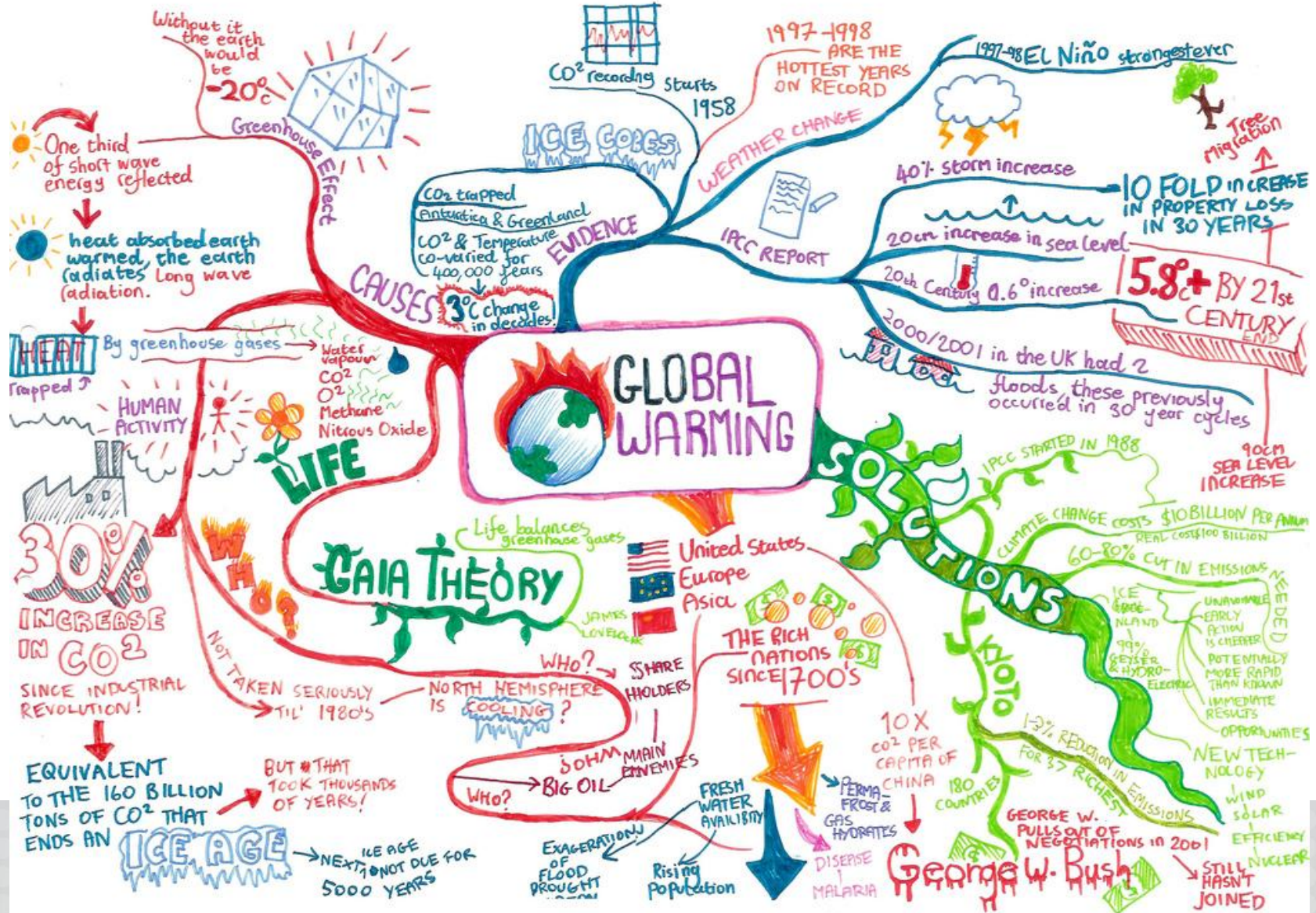


Click on the icons underneath the concepts to browse linked resources





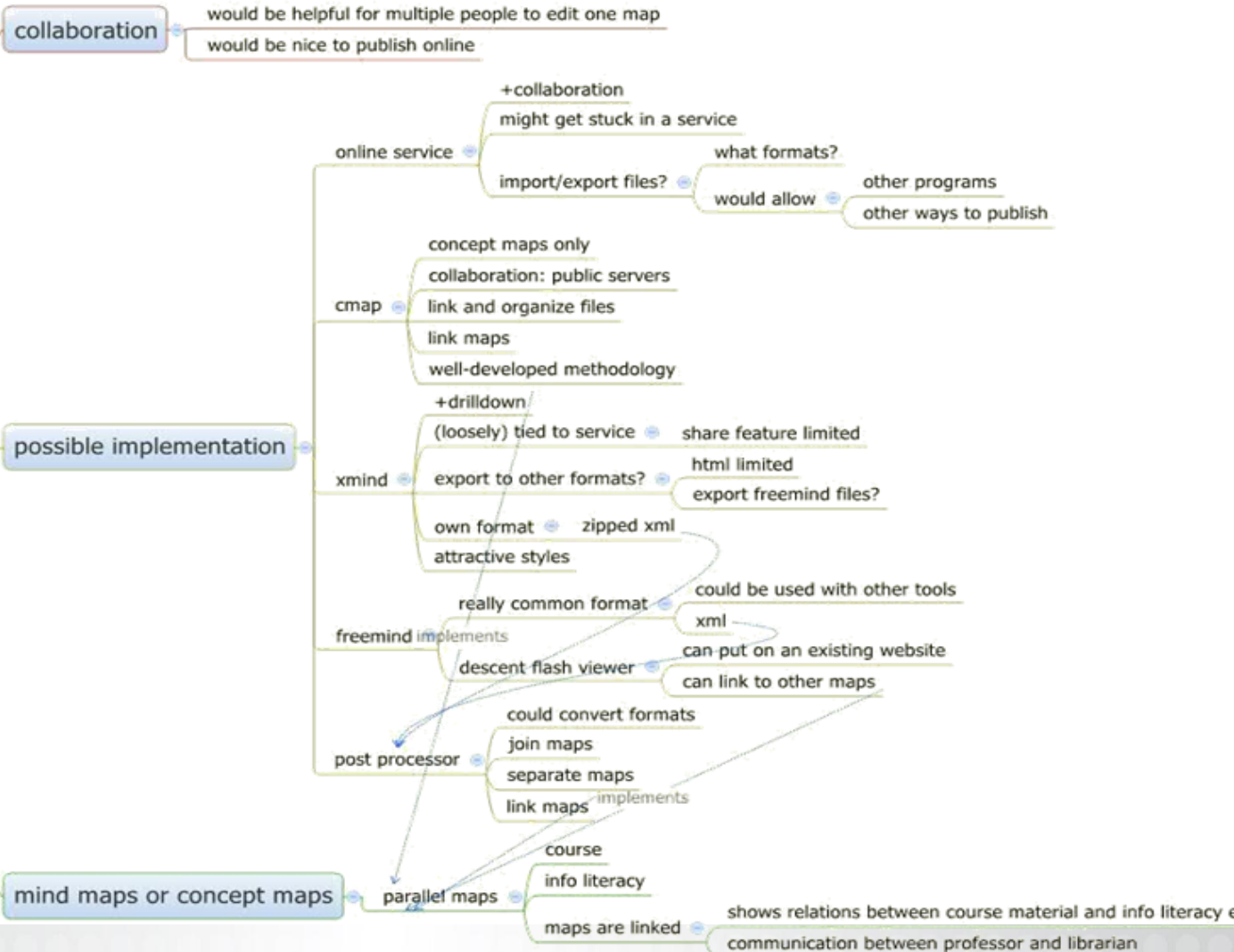
# Mind map (Buzan)





# Spidergram

## Info Literacy Maps



# Many other types of maps

## A PERIODIC TABLE OF VISUALIZATION METHODS

<b>C</b> continuum															<b>G</b> graphic facilitation				
<b>Tb</b> table	<b>Ga</b> cartesian coordinates	<b>Data Visualization</b> Visual representations of quantitative data in schematic form (either with or without axes)												<b>Me</b> meeting trace	<b>Mm</b> metro map	<b>Tm</b> temple	<b>St</b> story template	<b>Tr</b> tree	<b>Ct</b> cartoon
<b>Pi</b> pie chart	<b>L</b> line chart	<b>Information Visualization</b> The use of interactive visual representations of data to amplify cognition. This means that the data is transformed into an image, it is mapped to screen space. The image can be changed by users as they proceed working with it												<b>Metaphor Visualization</b> Visual Metaphors position information graphically to organize and structure information. They also convey an insight about the represented information through the key characteristics of the metaphor that is employed					
		<b>Concept Visualization</b> Methods to elaborate (mostly) qualitative concepts, ideas, plans, and analyses.												<b>Compound Visualization</b> The complementary use of different graphic representation formats in one single schema or frame					
<b>B</b> bar chart	<b>Ac</b> area chart	<b>R</b> radar chart cobweb	<b>Pa</b> parallel coordinates	<b>Hy</b> hyperbolic tree	<b>Cy</b> cycle diagram	<b>T</b> timeline	<b>Ve</b> vean diagram	<b>Mi</b> mindmap	<b>Sq</b> square of oppositons	<b>Cc</b> concentric circles	<b>Ar</b> argument slide	<b>Sw</b> swim lane diagram	<b>Gc</b> gant chart	<b>Pm</b> perspectives diagram	<b>D</b> dilemma diagram	<b>Pr</b> parameter ruler	<b>Kn</b> knowledge map		
<b>Hi</b> histogram	<b>Sc</b> scatterplot	<b>Sa</b> sankey diagram	<b>In</b> information lense	<b>E</b> entity relationship diagram	<b>Pt</b> petri net	<b>Fl</b> flow chart	<b>Cl</b> clustering	<b>Lc</b> layer chart	<b>Py</b> misto pyramid technique	<b>Ce</b> cause-effect chains	<b>Tl</b> toulmin map	<b>Dt</b> decision tree	<b>Cp</b> cpm critical path method	<b>Cf</b> concept fan	<b>Co</b> concept map	<b>Ic</b> iceberg	<b>Lm</b> learning map		
<b>Tk</b> tukey box plot	<b>Sp</b> spectrogram	<b>Da</b> data map	<b>Tp</b> treemap	<b>Cn</b> cone tree	<b>Sy</b> system dyn./ simulation	<b>Df</b> data flow diagram	<b>Se</b> semantic network	<b>So</b> soft system modeling	<b>Sn</b> synergy map	<b>Fo</b> force field diagram	<b>Ib</b> ibis argumentation map	<b>Pr</b> process event chains	<b>Pe</b> pert chart	<b>Ev</b> evocative knowledge map	<b>V</b> vee diagram	<b>Hh</b> heaven 'n' hell chart	<b>I</b> infomural		

**Cy** Process Visualization

**Hy** Structure Visualization

Overview  
 Detail

Detail AND Overview

< > Divergent thinking

> < Convergent thinking

Note: Depending on your location and connection speed it can take some time to load a pop-up picture.

version 1.5

© Ralph Lengler & Martin J. Eppler, www.visual-literacy.org

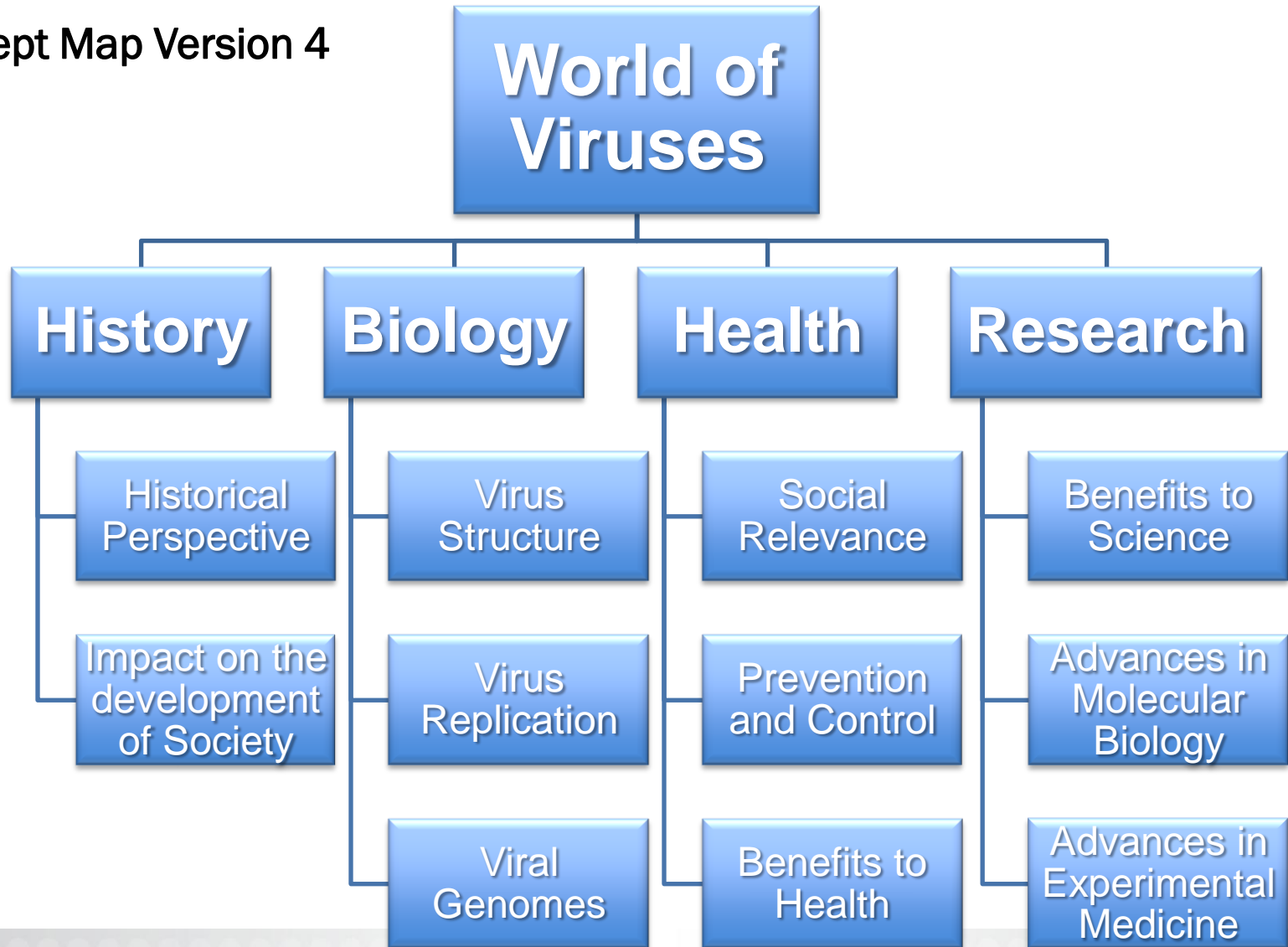
<b>Su</b> supply demand curve	<b>Pe</b> performance charting	<b>St</b> strategy map	<b>Oc</b> organisation chart	<b>Ho</b> house of quality	<b>Fd</b> feedback diagram	<b>Ft</b> failure tree	<b>Mq</b> magic quadrant	<b>Ld</b> life-cycle diagram	<b>Po</b> porter's five forces	<b>S</b> s-cycle	<b>Sm</b> stakeholder map	<b>Is</b> ishikawa diagram	<b>Tc</b> technology roadmap
<b>Ed</b> edgeworth box	<b>Pf</b> portfolio diagram	<b>Sg</b> strategic game board	<b>Mz</b> mintzberg's organigraph	<b>Z</b> zwickly's morphological box	<b>Ad</b> affinity diagram	<b>De</b> decision discovery diagram	<b>Bm</b> bcg matrix	<b>Stc</b> strategy canvas	<b>Vc</b> value chain	<b>Hy</b> hype-cycle	<b>Sr</b> stakeholder rating map	<b>Ta</b> taps	<b>Sd</b> spray diagram



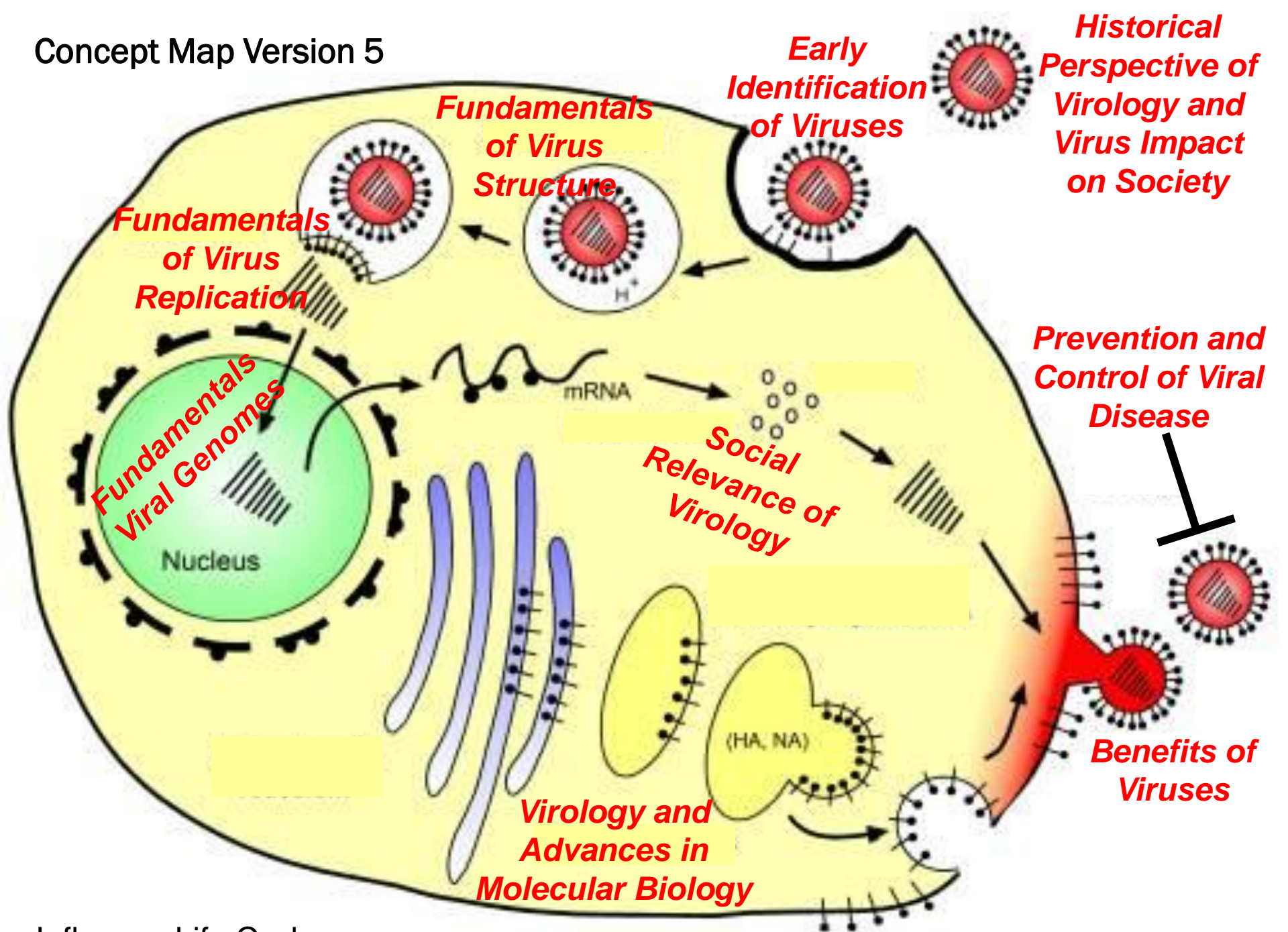
# Concept Map Version 1



Concept Map Version 4

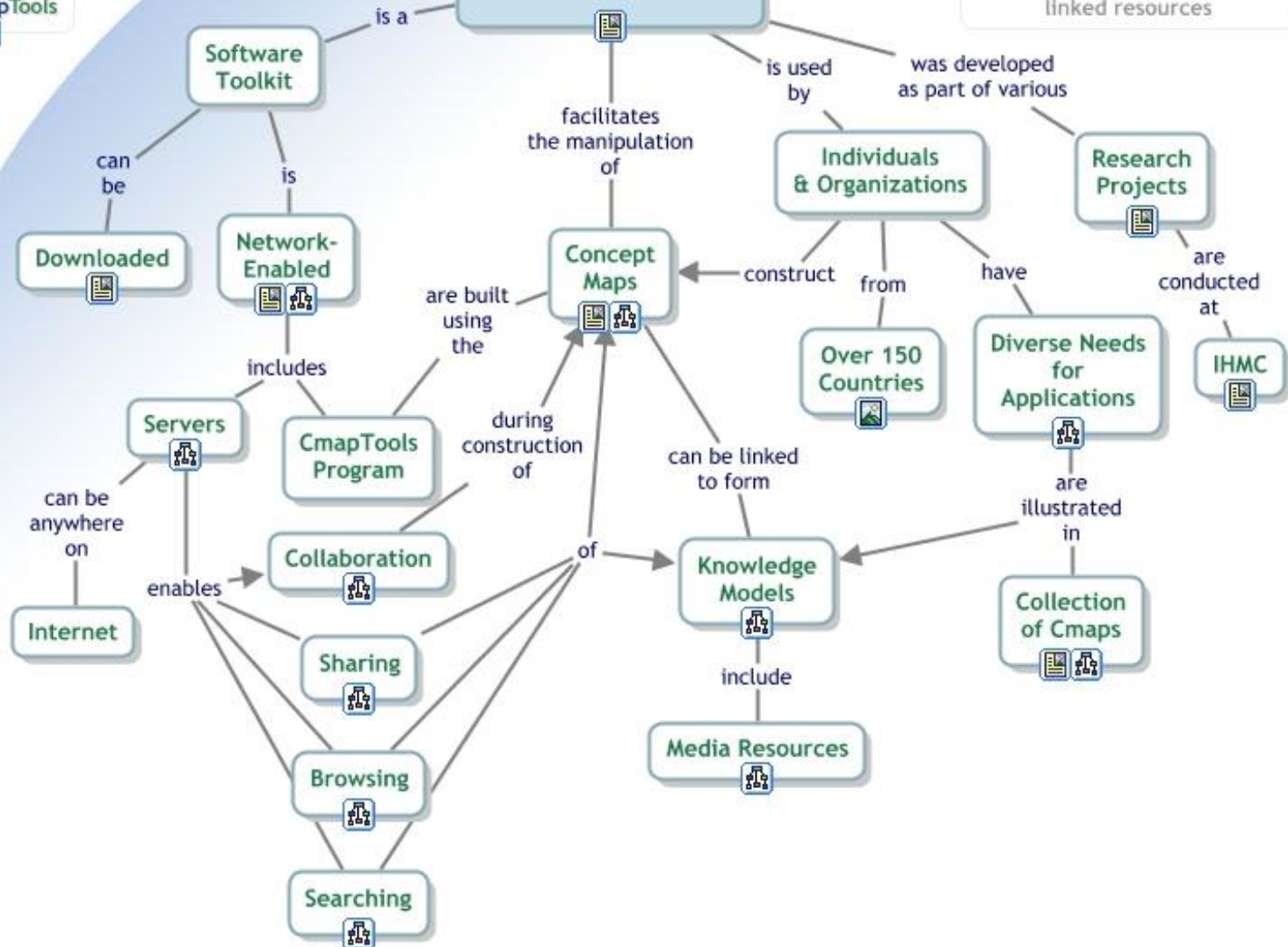






# IHMC CmapTools

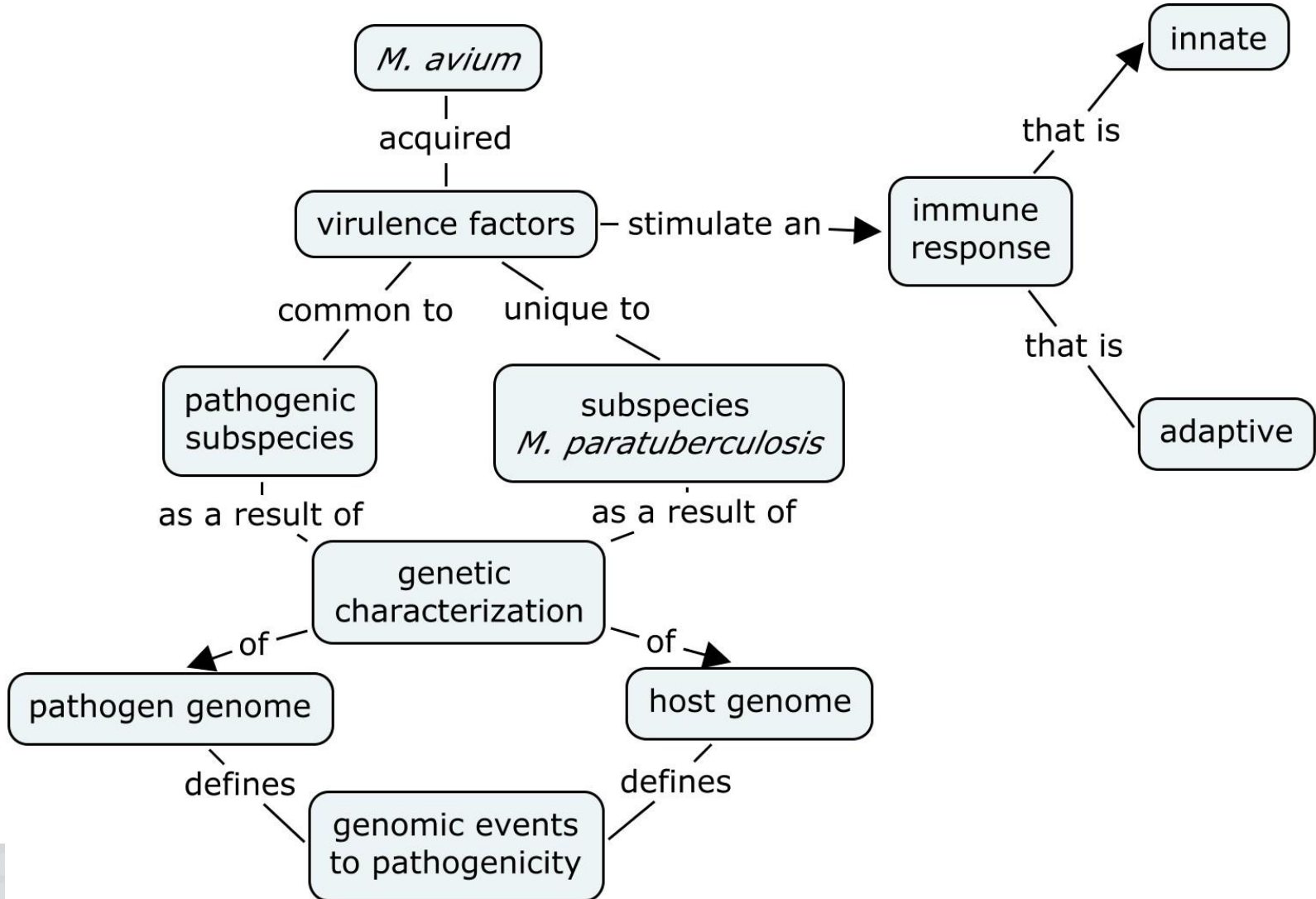
Click on the icons underneath the concepts to browse linked resources



Download the program at  
<http://cmap.ihmc.us/conceptmap.html>



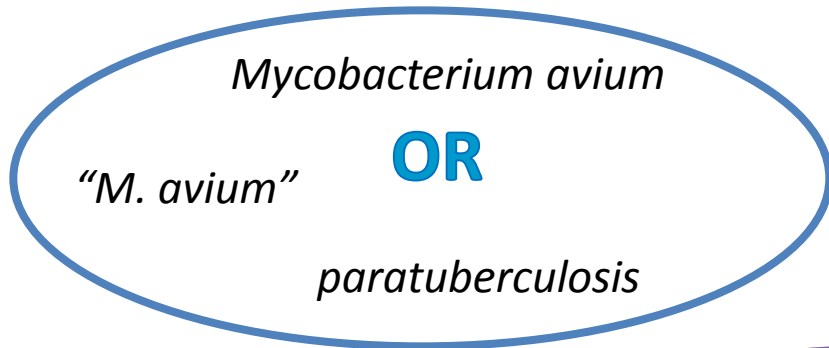
# Evolution of the pathogen *Mycobacterium avium* subsp. *paratuberculosis*



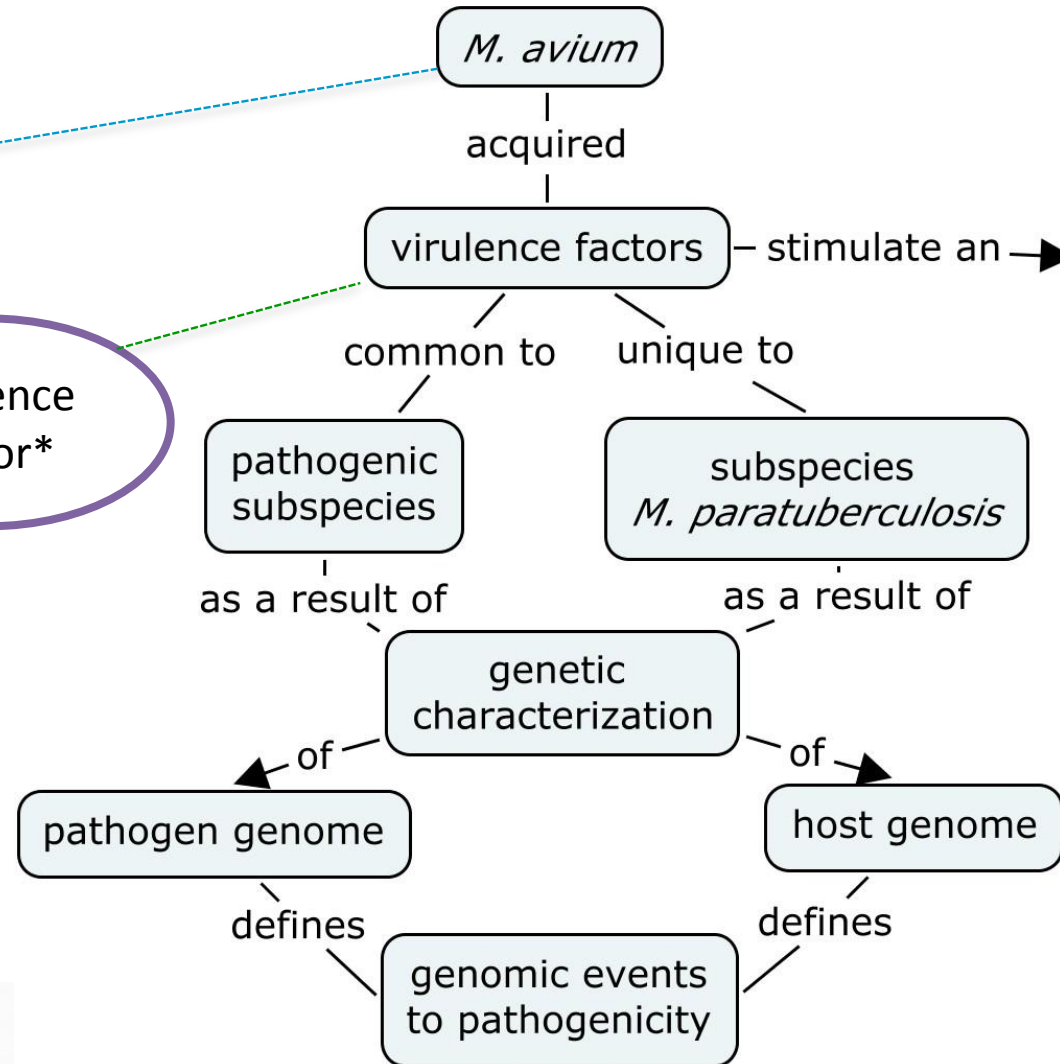
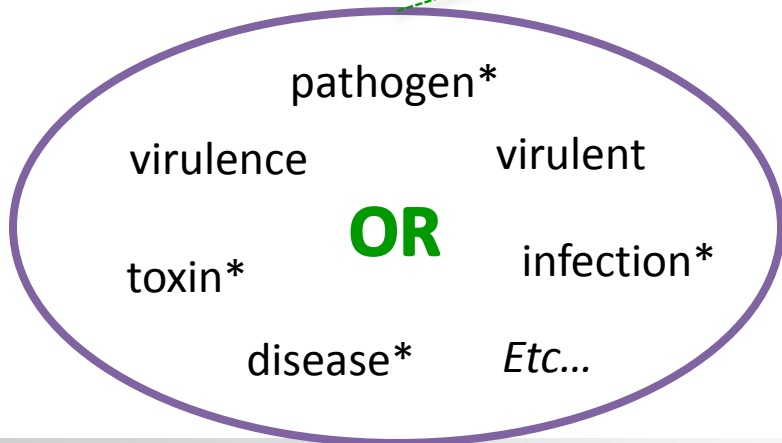
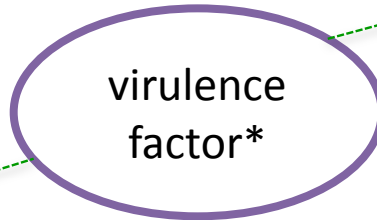


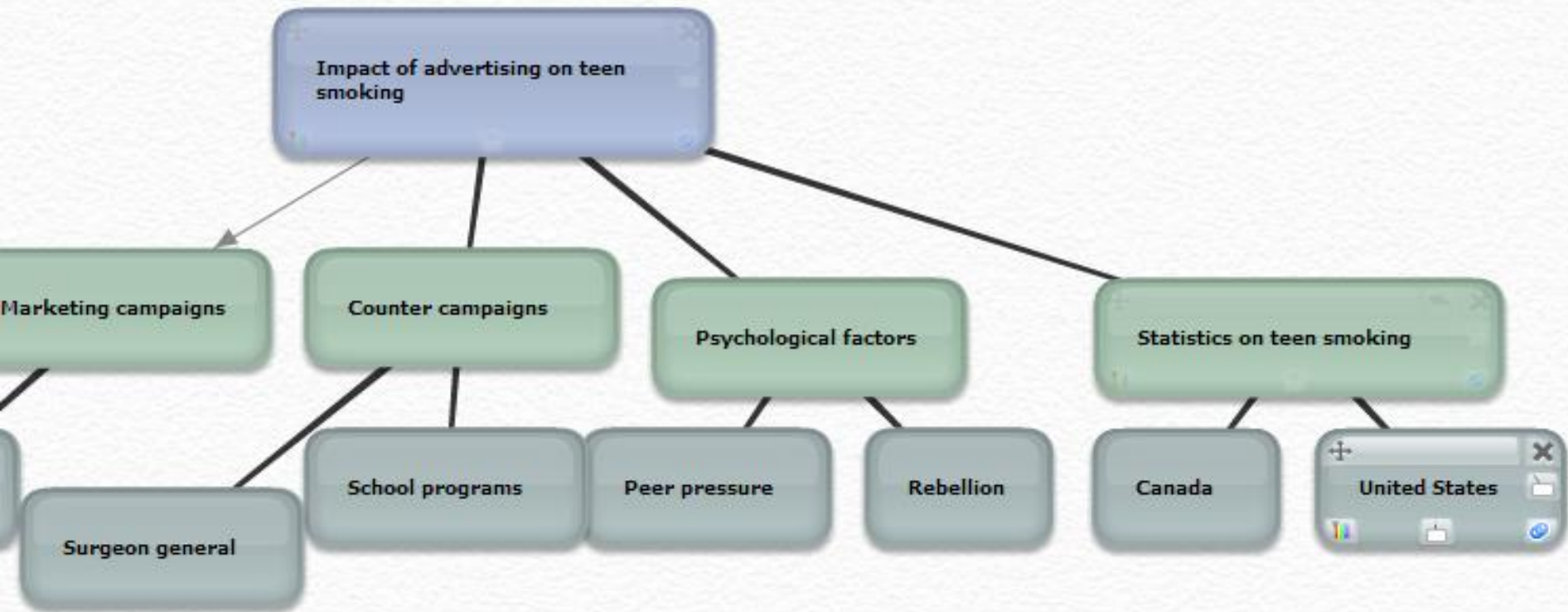


# Evolution of the pathogen *Mycobacterium avium* subsp. *paratuberculosis*



**AND**





## How to Create a Concept Map

1. Identify the general/broad topic that you are interested in.

Example: You are interested in the general topic of obesity

2. Brainstorm on the general topic and list all the concepts and themes that are related to the topic on a large piece of paper as concise as possible.

Example:

Who? How many? Reasons or causes of Effects of More fast food Bigger portions Large fries Diabetes Technology dependent Stroke Heart disease High-blood pressure Balanced diet Little sugar	Kids Adult female Mothers Depression Genetic More TV viewing Sedentary life style Low work productivity Low self-esteem Poor emotional health Physical fitness Balanced diet Nutritious meals Less fast food	Obese parents Unhealthy Diet Little physical exercise Soda pop Dessert Too much sugar
--	---	--

Concept map exercise for crafting search strategy.  
Created by Utah State University Libraries Reference Services Department  
<http://library.usu.edu/instruct/tutorials/cm/CMinstruction2.htm>

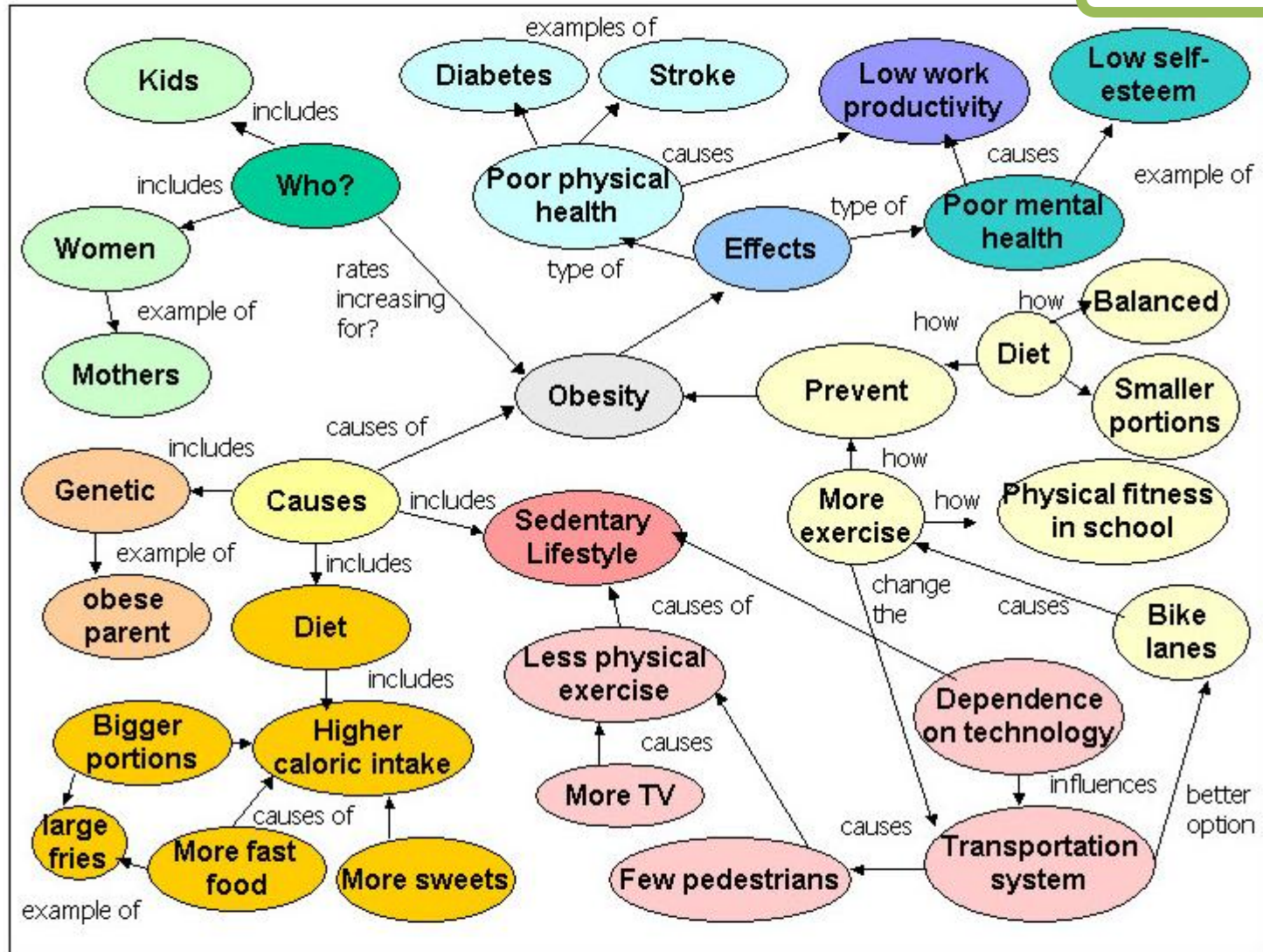
3. Using unlined paper, write the main theme in the center of the page.

4. Take the other concepts identified in the brainstorming and connect them to the center concept. You can use lines, circles, or arrows. More important ideas should be put nearer to the center and less important ideas further away.



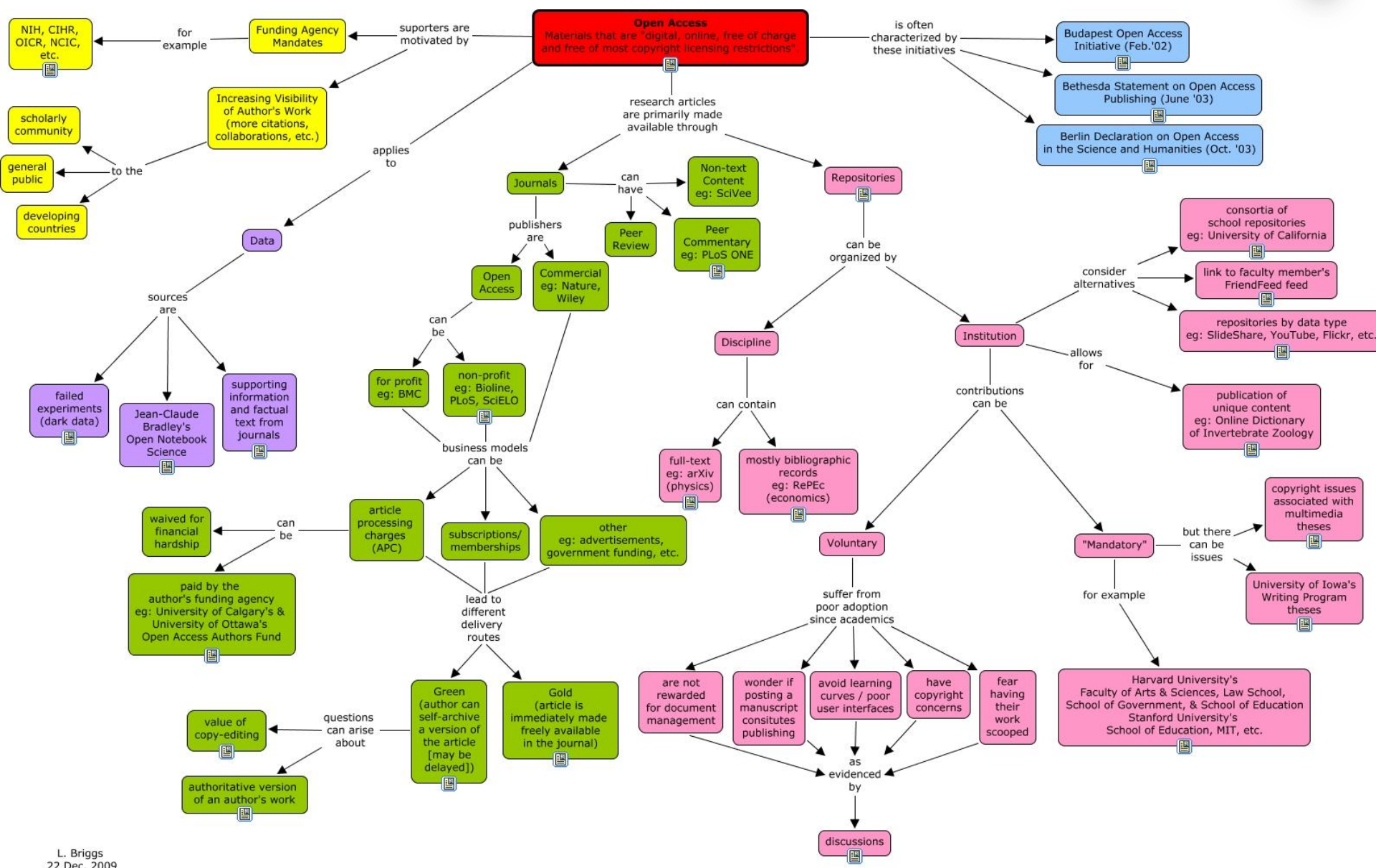
... concepts identified in the brainstorming and connect them to the center concept. You can use other organizational patterns, arrows or groups. More important ideas should be put nearer to the center and less important ideas further away. The relationship between the concepts.

**Active learning**



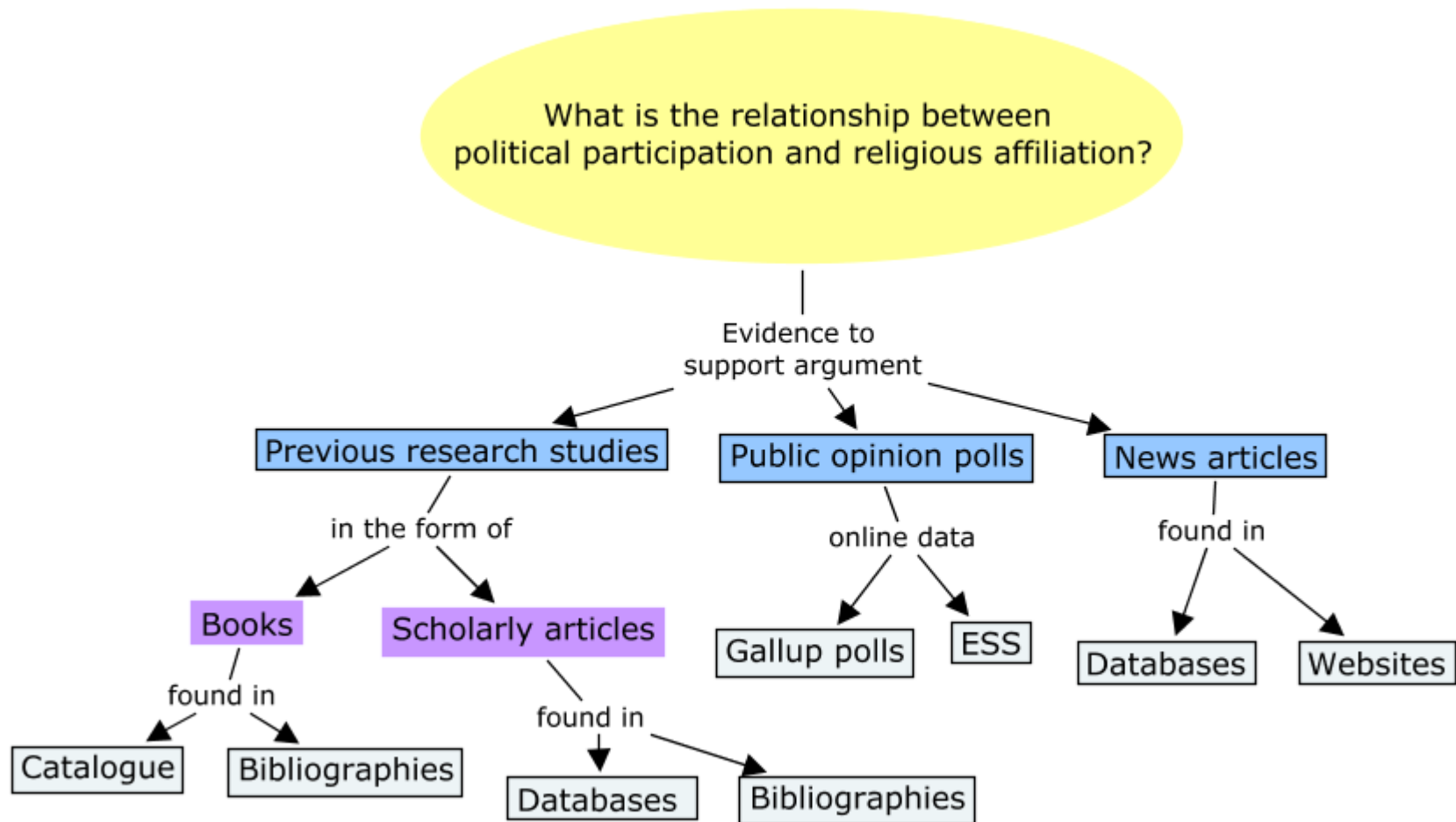
... has been created, look at the organizational patterns to see if the pieces fit together and make sense and if there is anything missing. After the map has been created, look at the organizational patterns to see if the pieces fit together and make sense and if there is anything missing.

# Demonstration





# Concept map of information sources





# Planning & Communicating

POLI31  
Latin American Politics



Students in this course

Past exams in the library catalogue

Mid-term exams

Research paper

Synthesize information and write paper

Locate appropriate literature

Select a topic

Identify sources of evidence

Finding known items from citations

Finding academic books and articles

Evaluating information

Resources web page

Brainstorming worksheets

In-class workshop

Worksheets

Instructional videos

In-class presentation

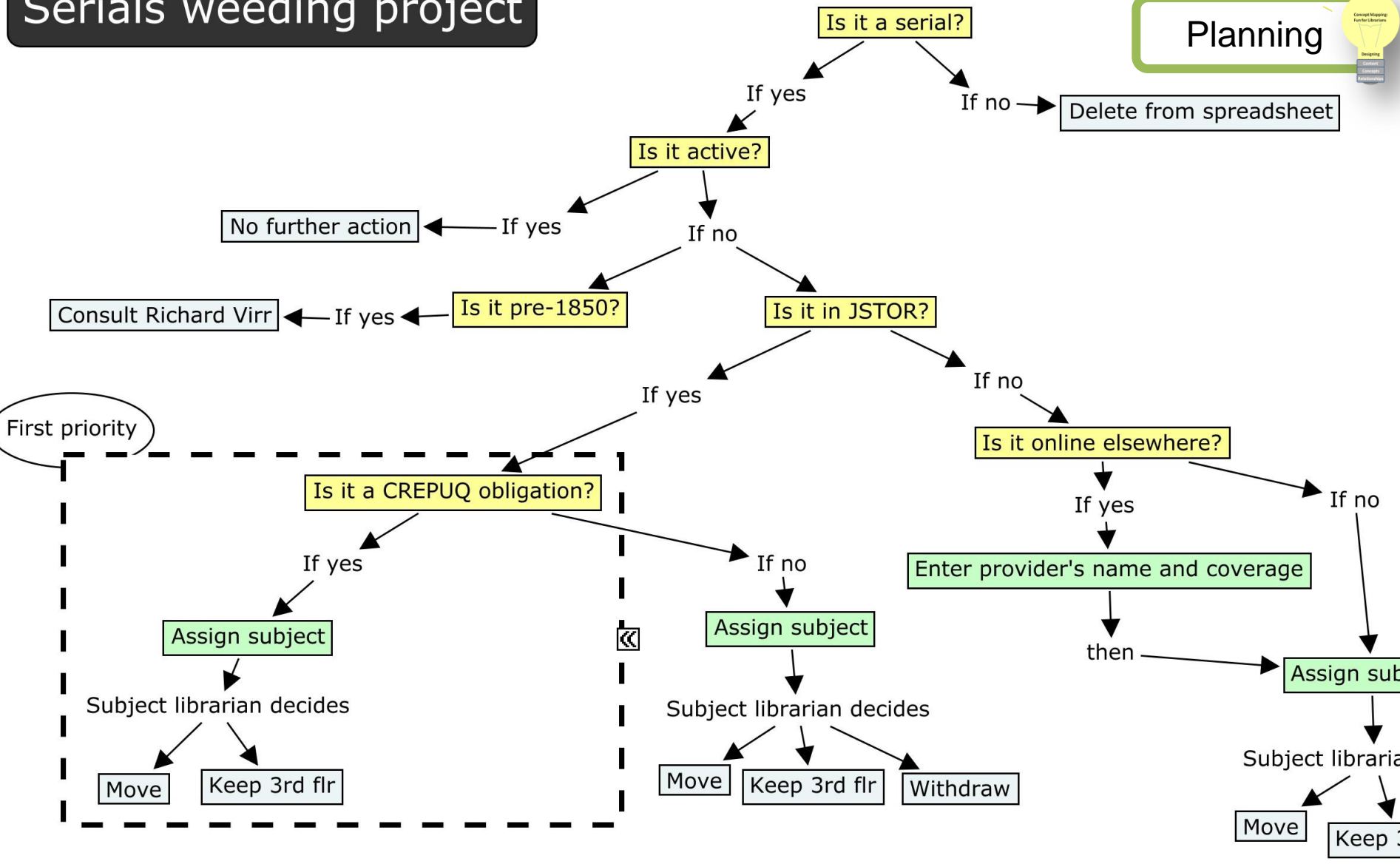
Consultation with librarians

Sources of background information

Types of materials available

Understanding  
Students  
Academic Integrity

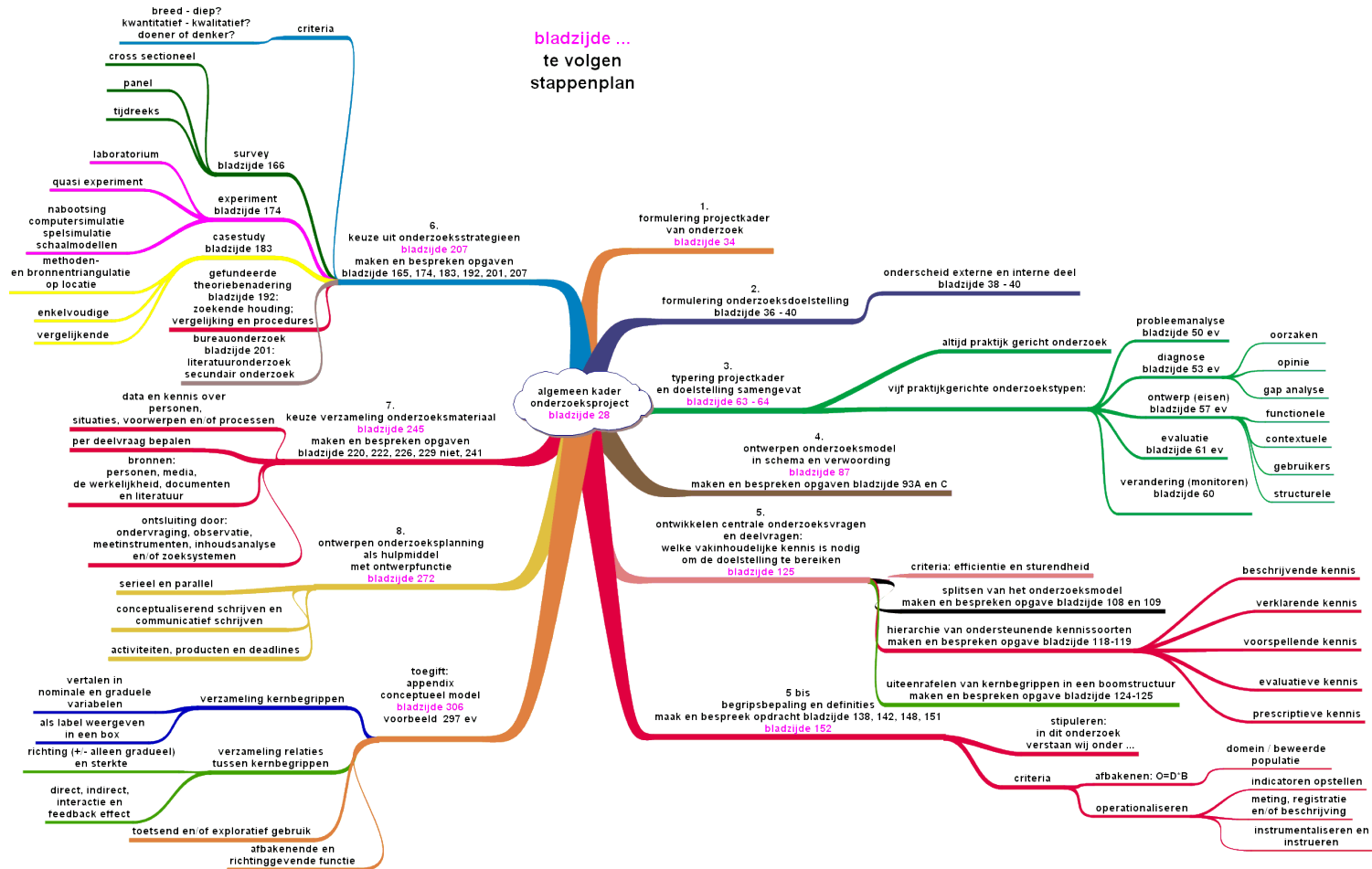
# Serials weeding project



Note! When the Redpath basement is full, the "move" option disappears.



# Itinerary for Research, Teacher







bio\_informatics - ATLAS.ti

File Edit Documents Quotations Codes Memos Networks Views Tools Extras A-Docs Windows Help

P-Docs P 1: P1\_Transcription.doc {64}

Quotes 1:1 so that one tool which is BLAT

Codes A bit outdated {3-1}

Memos Checking {2-Me} - Super

Tool interface

Code Manager [HU: bio\_i...

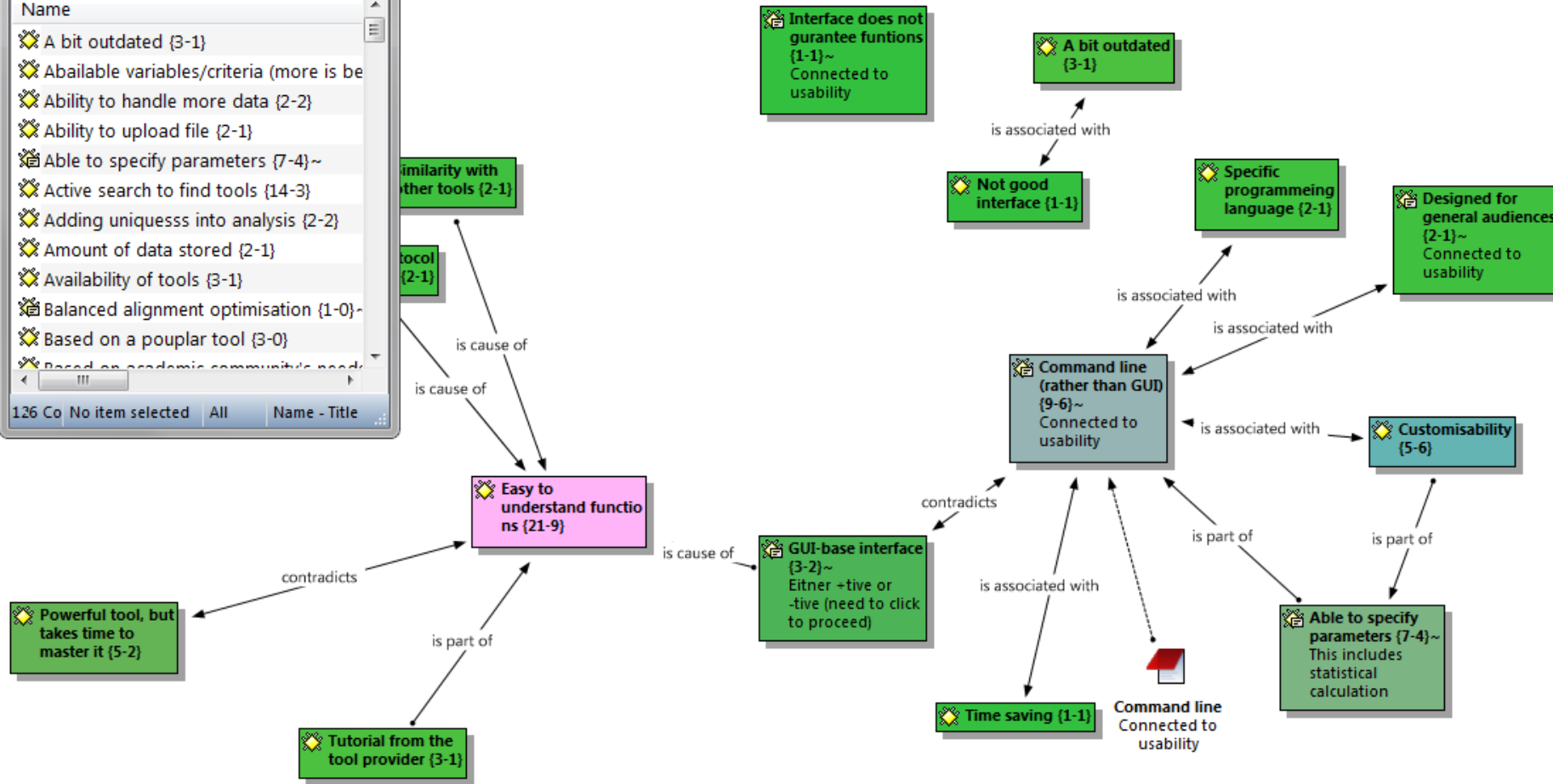
Codes Edit Miscellaneous Output View

Name

- A bit outdated {3-1}
- Available variables/criteria (more is be
- Ability to handle more data {2-2}
- Ability to upload file {2-1}
- Able to specify parameters {7-4}~
- Active search to find tools {14-3}
- Adding uniqueness into analysis {2-2}
- Amount of data stored {2-1}
- Availability of tools {3-1}
- Balanced alignment optimisation {1-0}~
- Based on a popular tool {3-0}
- Based on academic community's need

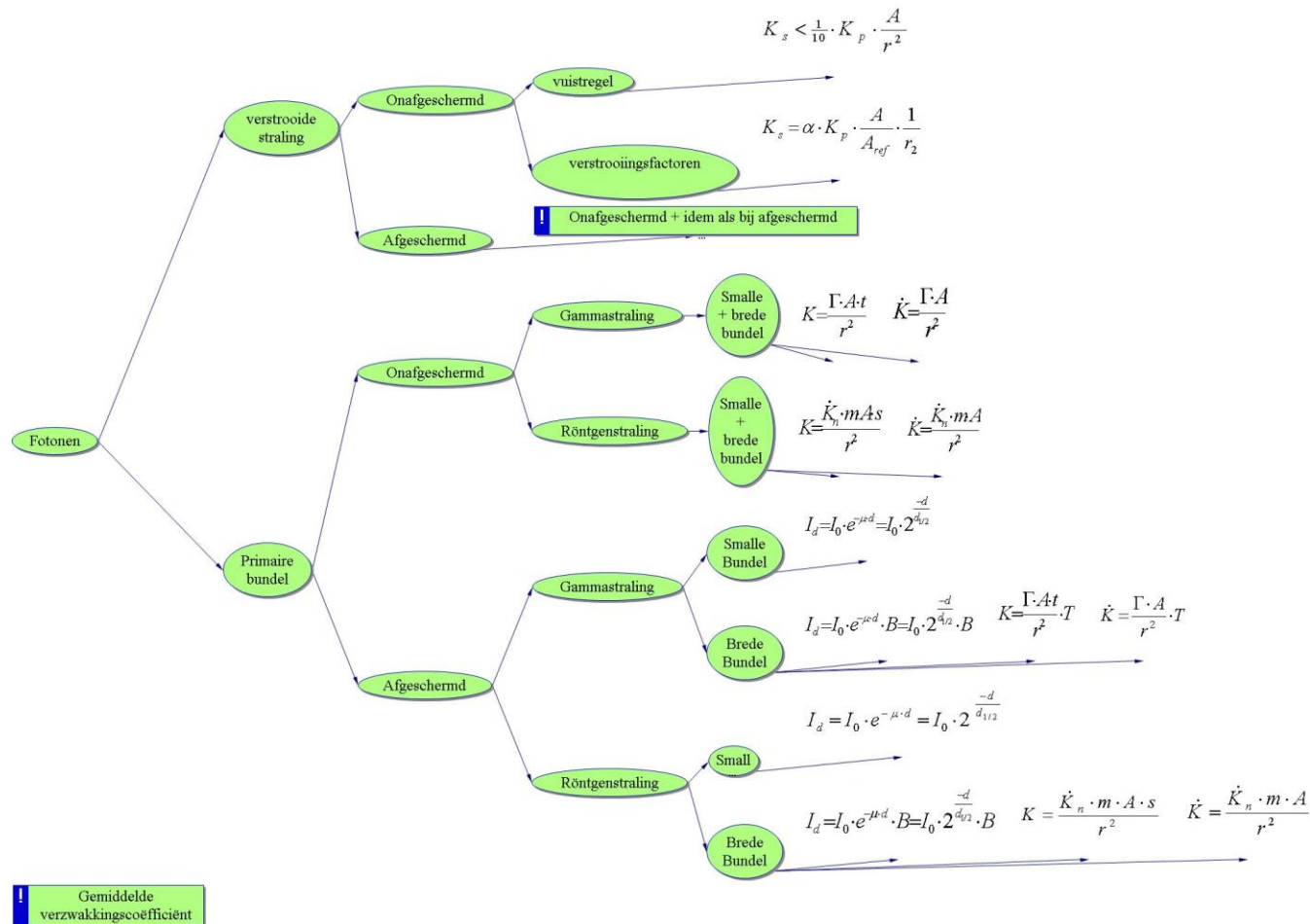
126 Co No item selected All Name - Title

## Atlas TI analysis software





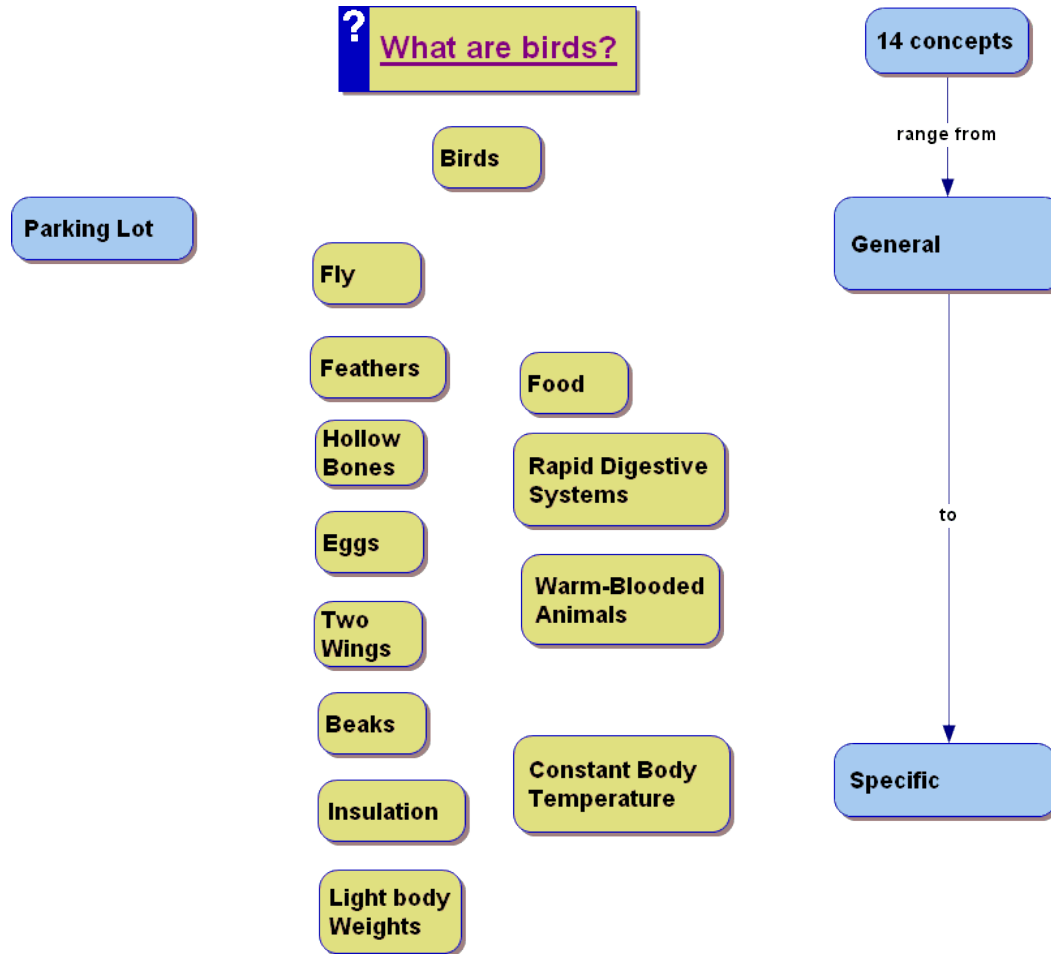
# Shielding from Radiation, Teacher



! Gemiddelde verzwakingscoëfficiënt



# First Concept Map, Students







# Assignment, Student

## begrippen

Visueel  
schema

Concept  
map

Mindmap

Tony  
Buzan

Joseph  
Novak

Web

Top -  
Down

Links -  
Rechts

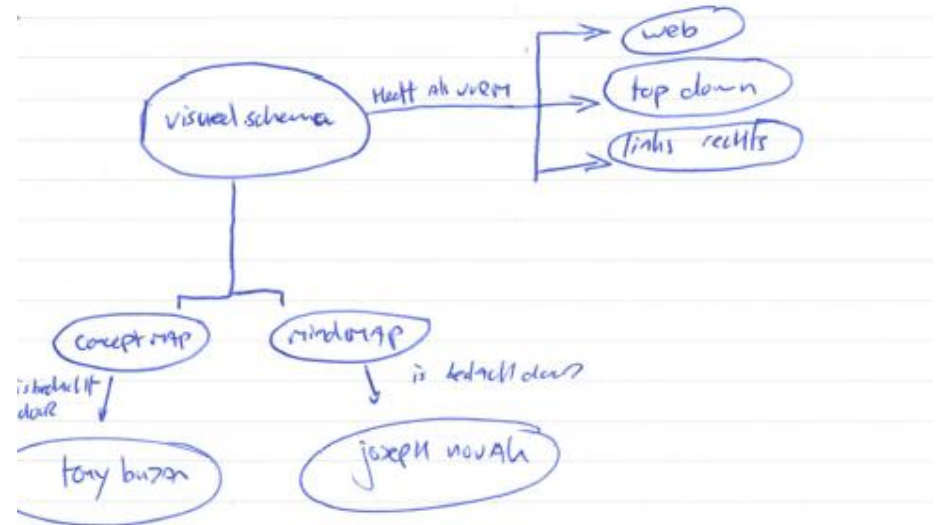
## werkwoorden op pijl

bedacht  
door

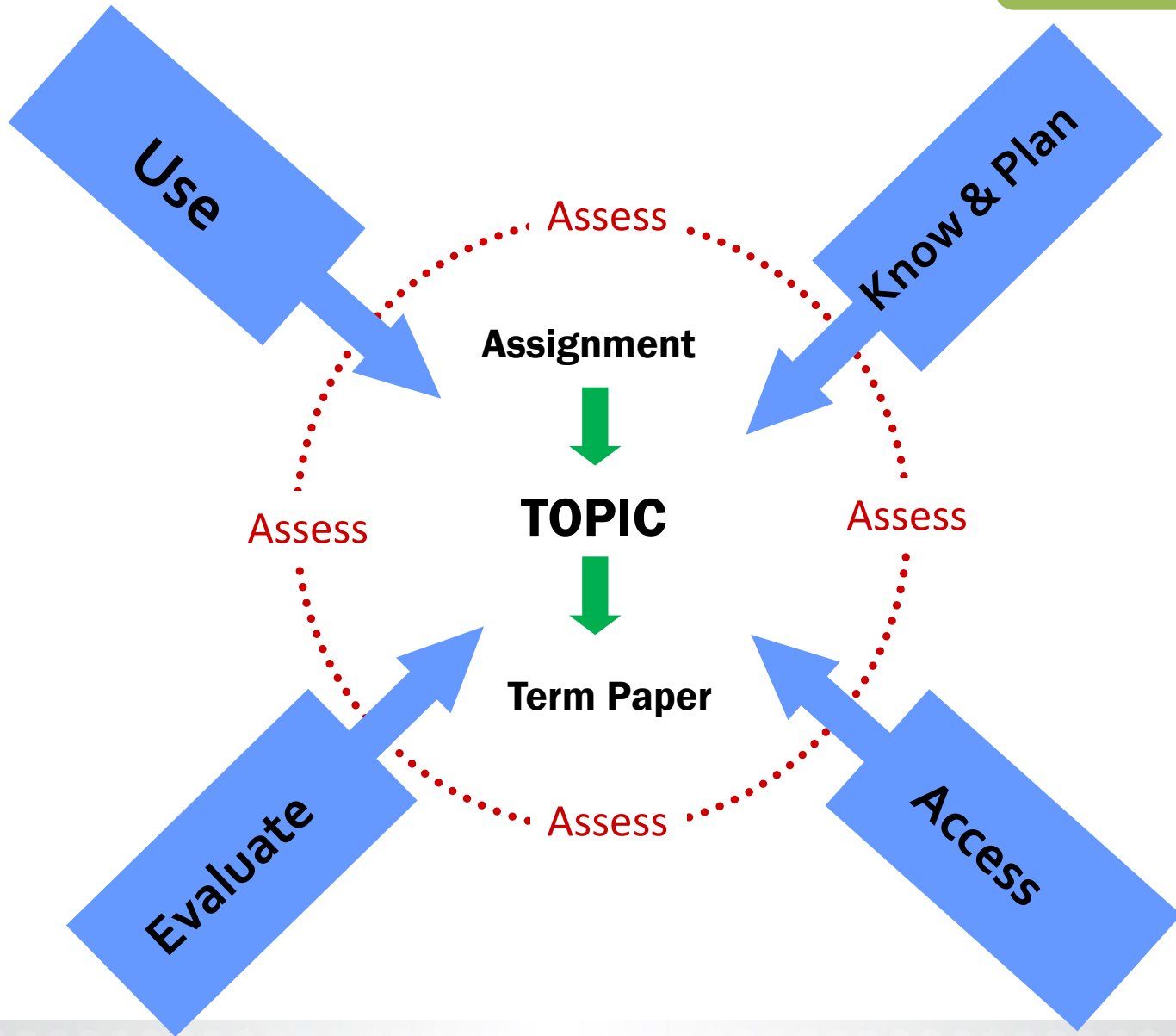
is

heeft als  
vorm

[meer]

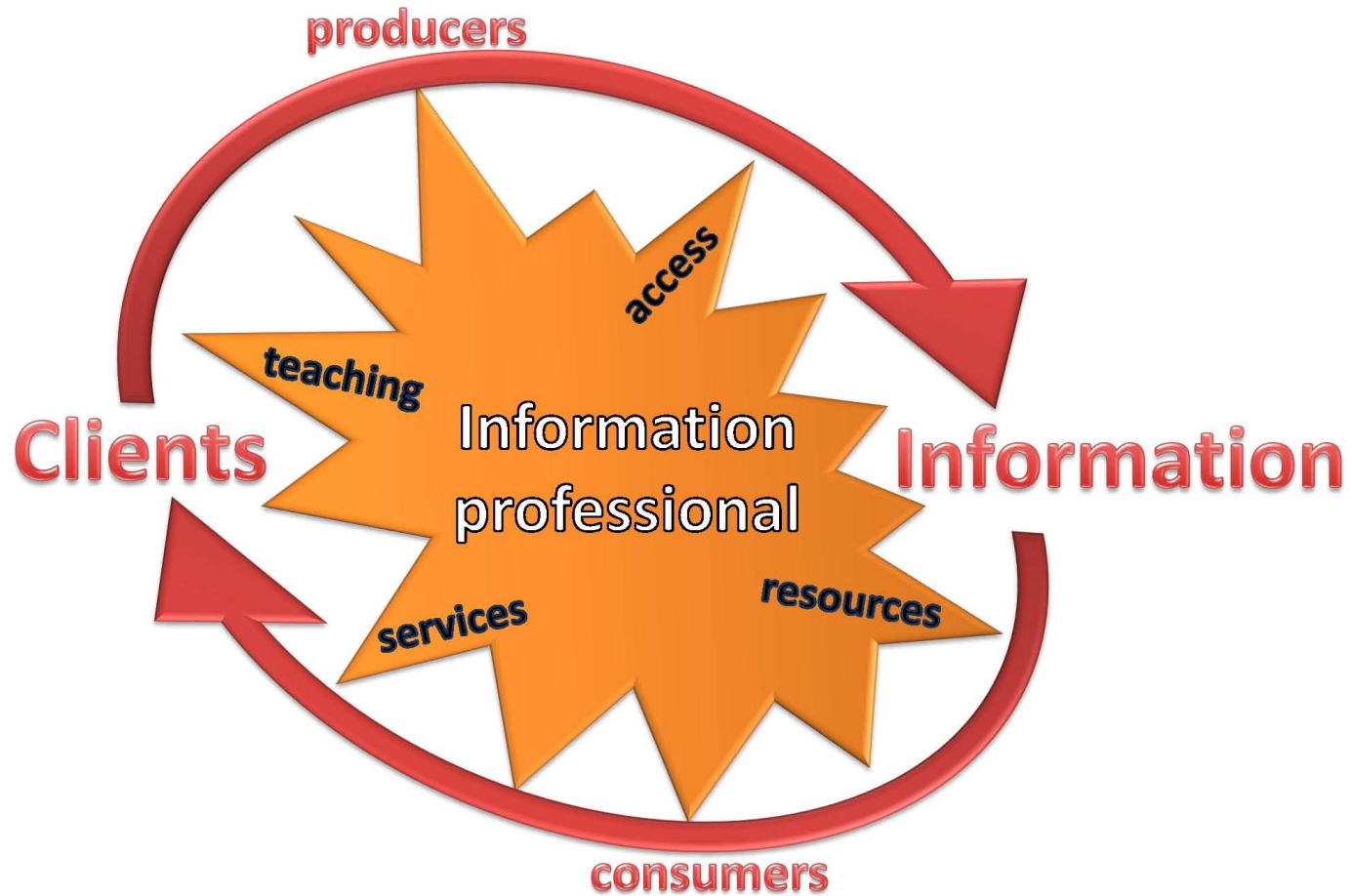


# The Research Process





# GLIS 637 Concept Map





# Context

**Content**

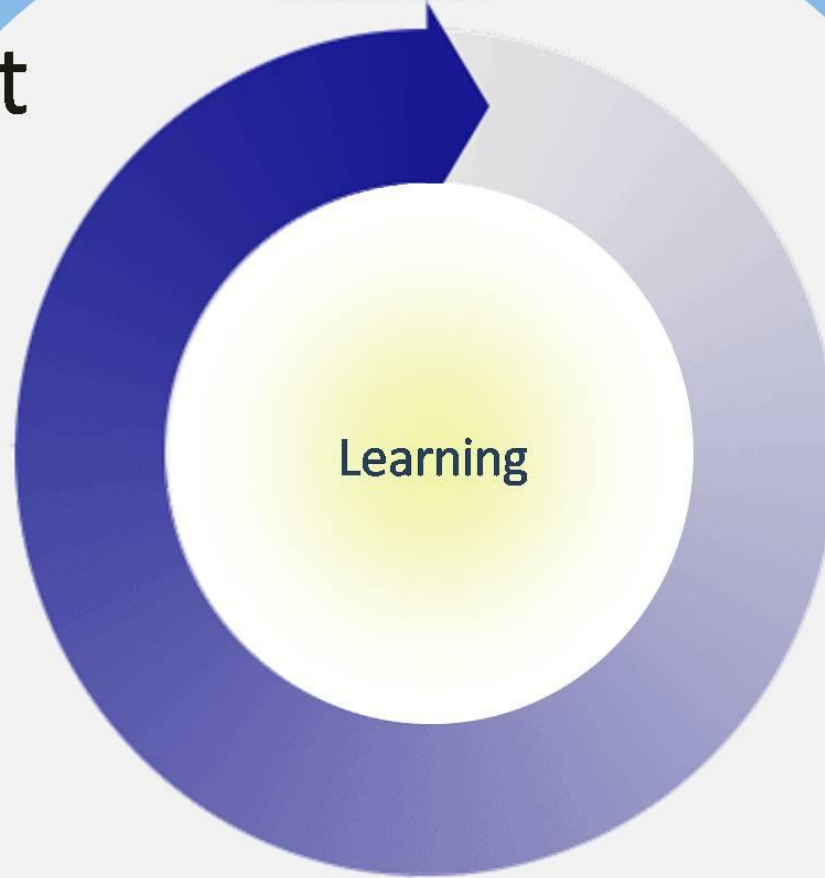
What is the subject matter?  
.....

**Assessment**  
Are students learning?  
.....

**Learning**

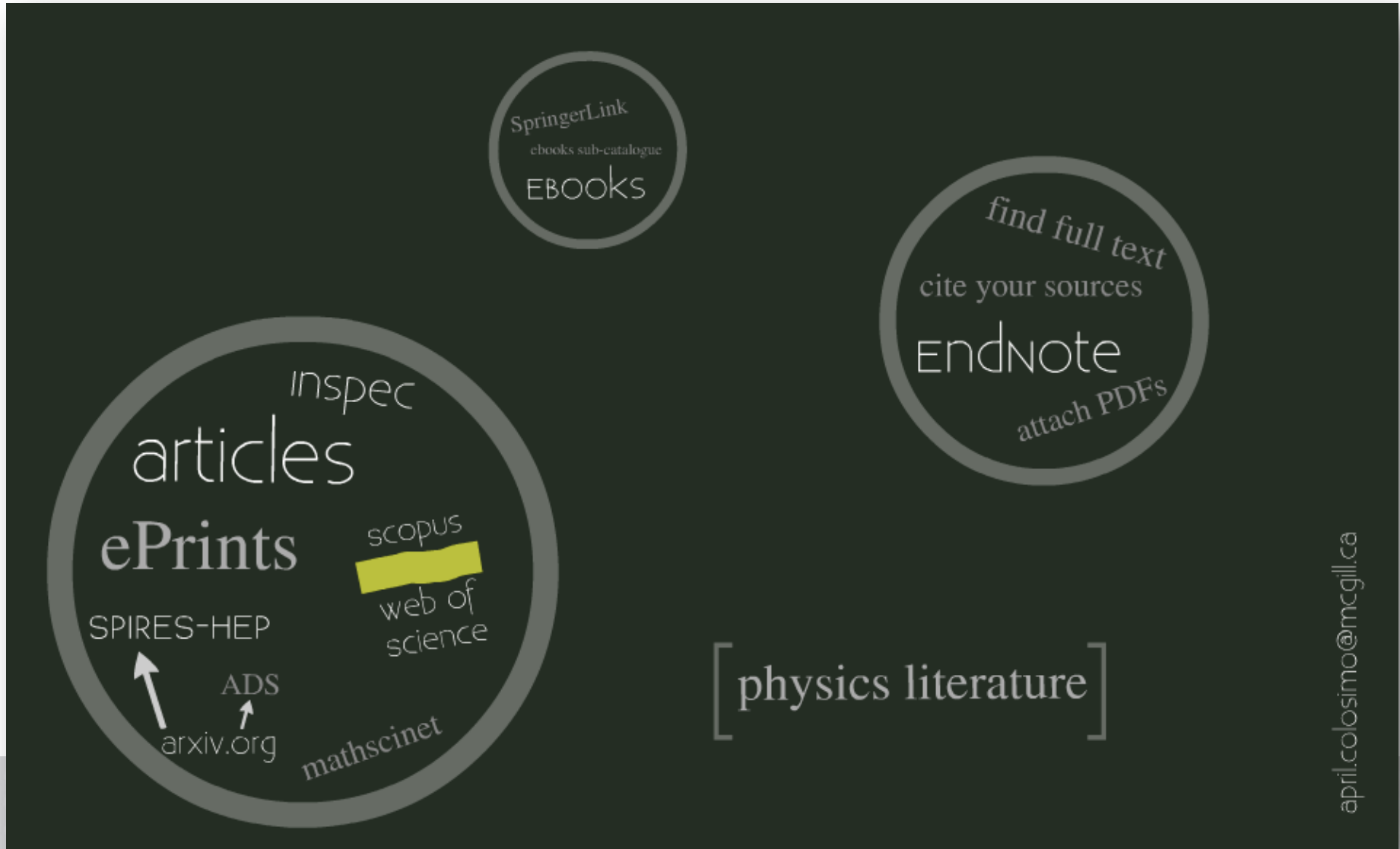
**Outcome**  
What will students learn?  
.....

**Strategy**  
What activities will support learning?  
.....





# Prezi: No self-respecting physicist...





**CREDO** *reference*  
Smart Research Starts Here

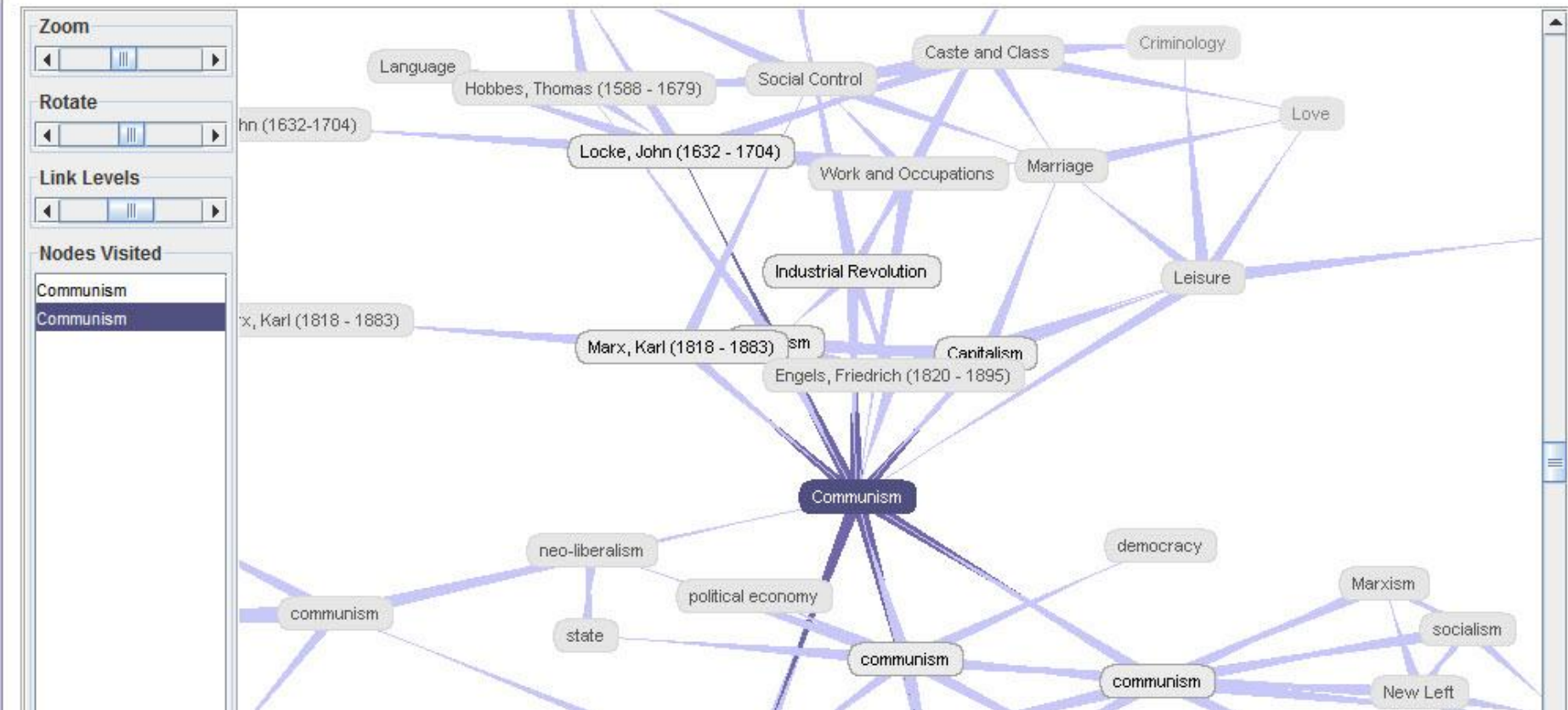


McGill Libraries | McGill Library Databases | Ask a McGill Librarian

[Search](#) | [Find a Book](#) | [Advanced Search](#) | [Concept Map](#) | [Saved Results](#) | [Gadgets](#) | [Help](#) |

[Logout](#)

Search for  in







Search communism Search

Advanced search

Discover

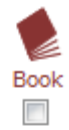


- Association
- Translation
- Discovery trail
- Spelling variation
- Thesaurus term

Results 1 - 25 of 120,890 for **communism**, sorted by: relevance - link to this result page

Your query has been expanded with: Communism and Judaism (subject), Communism and Zionism (subject), Marxism (subject), Bolshevism (subject)

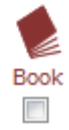
Your query: communism



**1. The Jew and communism; the story of early Communist victories and ultimate defeats in the Jewish community, U. S. A., 1919-1941.**  
Epstein, Melech  
New York, Trade Union Sponsoring Committee [1959]

Found: and (4) Communism (3) Jewish (2) communists (1)  
Special Collections, Ludwig Rosenberg 70-90  
Rosenberger Library of Judaica

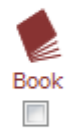
» Save or tag...



**2. The Jew and communism; the story of early Communist victories and ultimate defeats in the Jewish community, U. S. A., 1919-1941.**  
Epstein, Melech  
New York, Trade Union Sponsoring Committee [1959]

Found: and (4) Communism (3) Jewish (1) Zionism (1)  
Regenstein, Bookstacks DS143.E64

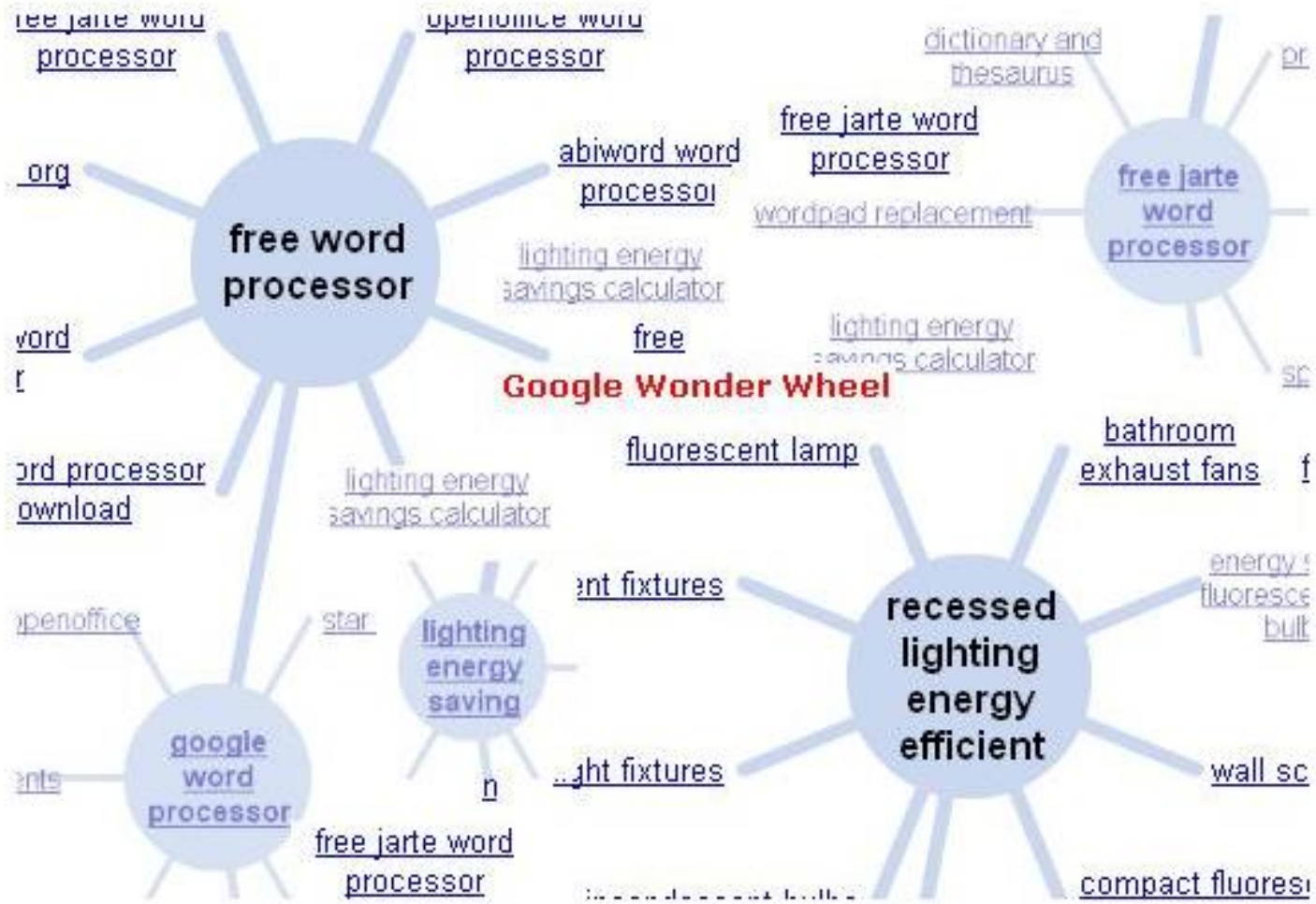
» Save or tag...



**3. The myth of Jewish communism : a historical interpretation / André Gerrits.**  
Gerrits, André.  
Brussels ; New York : P.I.E. Peter Lang, c2009.  
Gods, humans, and religions ; no. 16

Found: Communism (2) Jewish (2) and (1) communists (1)  
Regenstein, Bookstacks HX550.J4 G36 2009

» Save or tag...



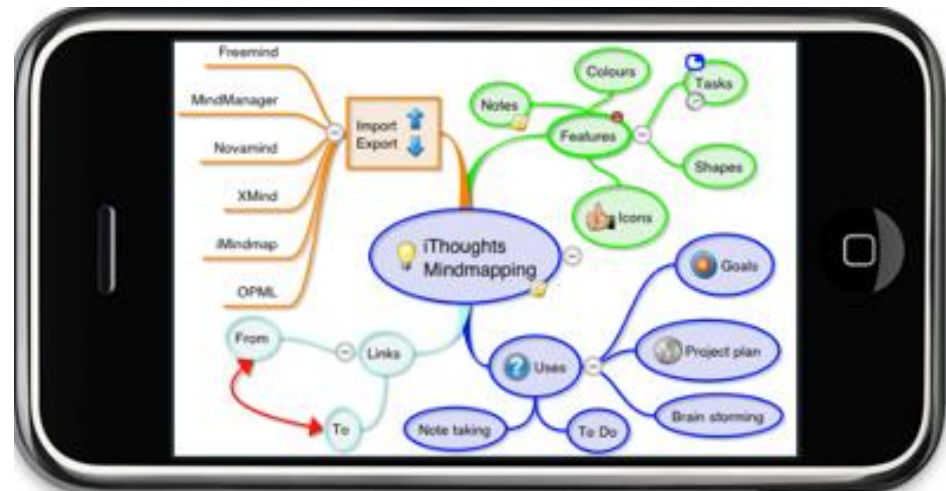
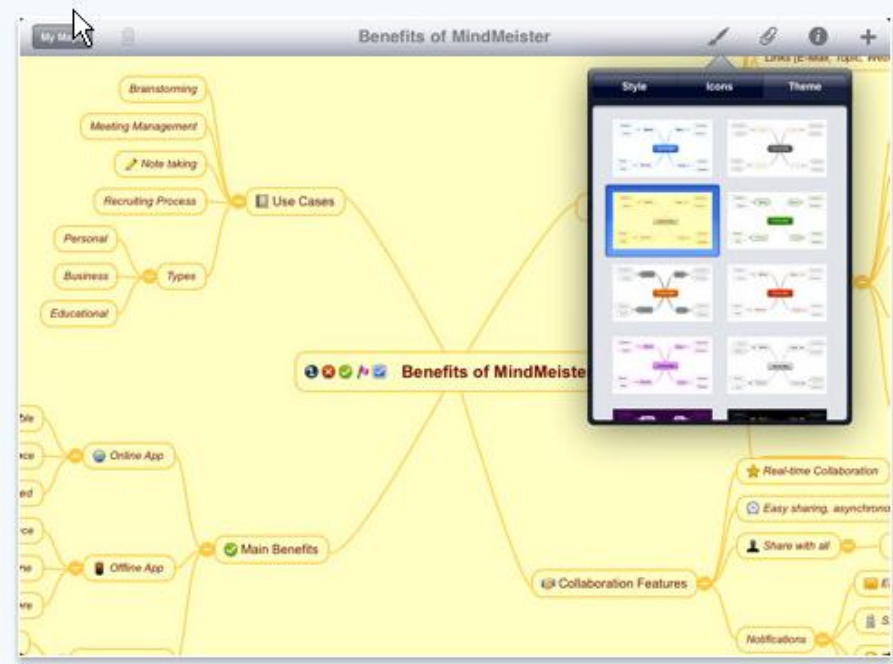
Google Wonder Wheel

Google Wonder wheel - great tool





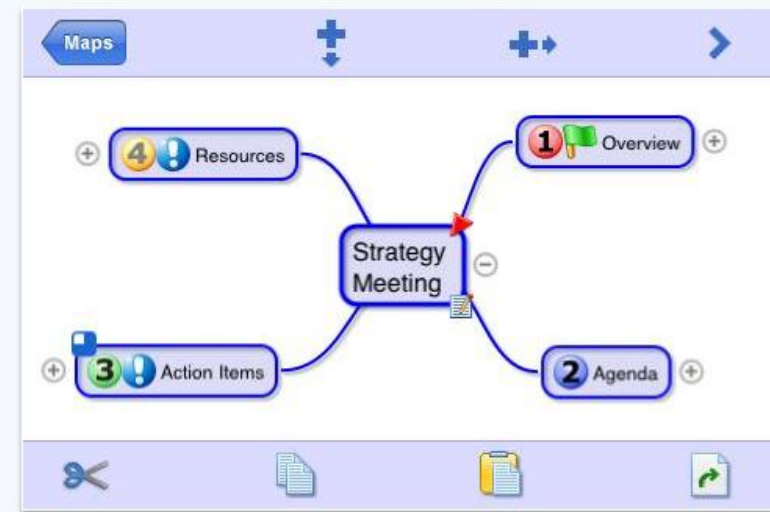
## iPad Screenshots



## Screenshots



## iPhone Screenshots





# Mobile mapping

ANDROID

## Android Market

This is a showcase for some of the featured and top ranked applications and games available on Android Market. For a comprehensive, up-to-date list of the tens of thousands of titles available, check out Android Market on your handset.

Featured

Top Free

Top Paid

Category

Productivity

Germany

& Backup



エキサイト英語翻訳

ColorNote Notepad Notes

Incoming information tool



Uninstaller Pro

QuickMark QR Code Reader

Quick Settings



Thinking Space

Note Everything

Mein o2 Beta



### Thinking Space

Developer: [C Chilton](#)

Portable Mind Mapping has never been so much fun! Create visual mind maps that help organize and plan your activities and ideas. \* Awesome mind mapping tools (links, notes, colors, icons) \* Great for study, meetings, tasks, planning, go wild! study, organize, revision, learn, brainstorming, studying, more study





# Inspiration?

[@InspirationSW](#) Inspiration 8 or 9 or Android phones?

about 20 hours ago via web



[SarahAtInspSW](#) [@VisualMap](#) That's a great question! At this time we do not have phone apps.

about 19 hours ago via TweetDeck in reply to [VisualMap](#)

[Reply](#) [Retweet](#)



# Image credits

- Slide 14, 15: Utah State University Libraries Reference Services Department  
<http://library.usu.edu/instruct/tutorials/cm/CMinstruction2.htm>
- Slide 16: Open Access concept map by Laura Briggs -  
<http://www.ualberta.ca/~lbriggs1/briggs/openaccess.html>
- Slide 27: McGill Teaching and Learning Services