



You Say Dog, I Say Canine

**Designing a Thesaurus to Connect
Your Users to Your Digital Content**

Overview

- Introduction to Controlled Vocabularies
- Creating a Thesaurus Step-by-Step
- Planning and Maintenance
- Resources & Future Directions
- Tips to Jump Start Your Project

dogs

Spanish

perros

USE FOR And Type

dog feeding

Used For

canine

Canis familiaris

domestic dogs

Broader Term

mammals

Narrower Term

puppies

service dogs

therapy dogs

Related Term

Canidae

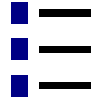
dog diseases



SEARCH

40% of search failures come from users and information providers using different terms

Controlled Vocabularies (CV)



List



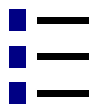
Synonym Ring



Hierarchy



Thesaurus



List

State Resources

- | | |
|-----------------------------|--------------------------------|
| Alabama | Massachusetts |
| Alaska | Michigan |
| Arizona | Minnesota |
| Arkansas | Mississippi |
| California | Missouri |
| Colorado | Montana |
| Connecticut | Nebraska |
| Delaware | Nevada |
| Florida | New Hampshire |
| Georgia | New Jersey |
| Hawaii | New Mexico |
| Idaho | New York |
| Illinois | North Carolina |
| Indiana | North Dakota |
| Iowa | Ohio |
| Kansas | Oklahoma |
| Kentucky | Oregon |
| Louisiana | Pennsylvania |
| Maine | Rhode Island |
| Maryland | South Carolina |

HWOC

Health Workforce Information Center

Events &
Training

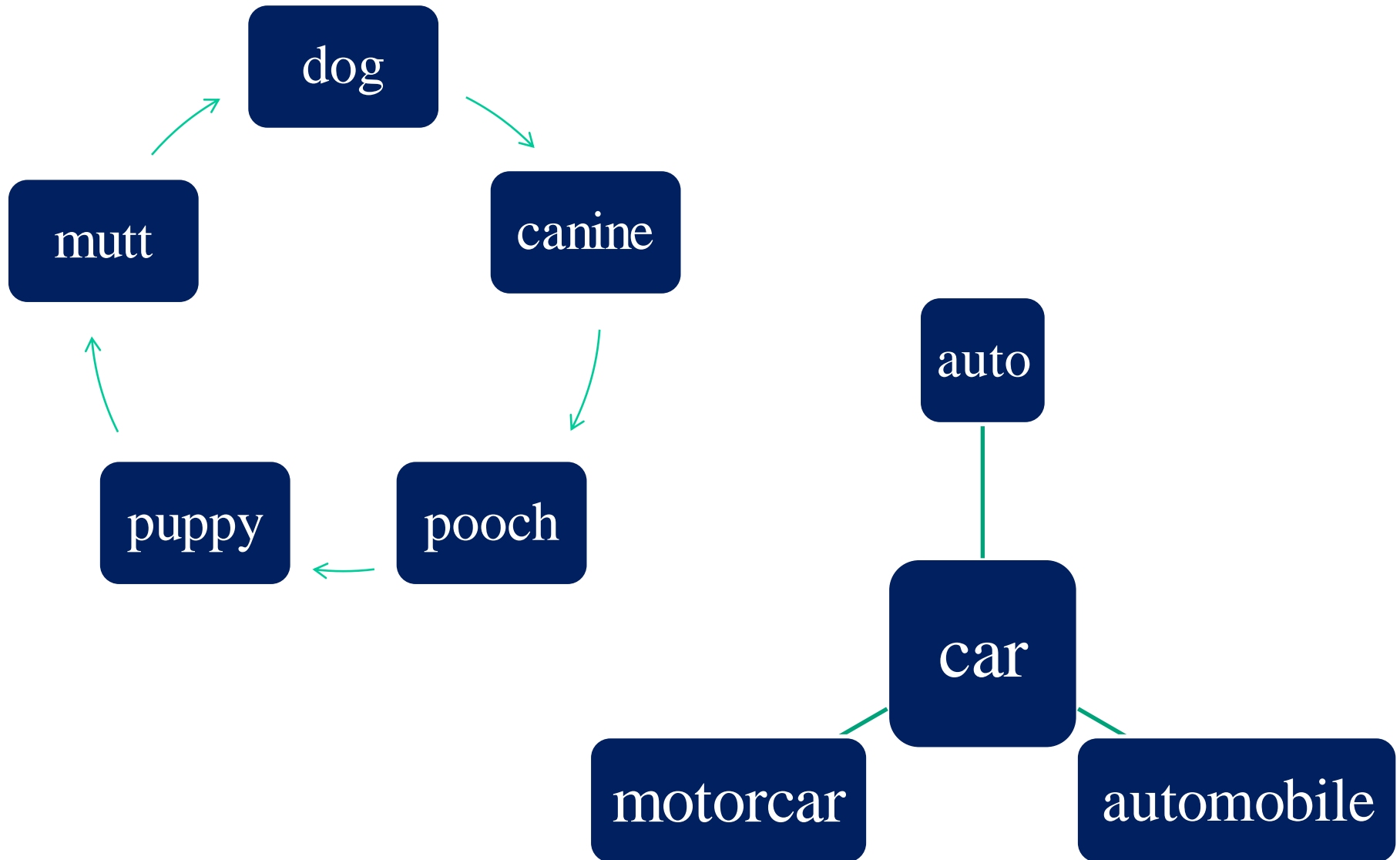
News and Updates: By Topic

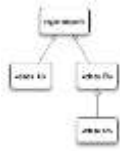
News items from the past 60 days

- [Academic Health Centers](#) (4)
- [Allied Health](#) (2)
- [Area Health Education Centers](#) (4)
- [Best Practices and Model Programs](#) (41)
- [Care Coordination](#) (18)
- [Clinics](#) (20)
- [Continuing Education](#) (1)
- [Cultural Competence](#) (12)
- [Disparities](#) (14)
- [Distribution](#) (13)
- [Diversity](#) (14)
- [Limited](#)
- [Loan](#)
- [Long](#)
- [Malpr](#)
- [Medic](#)
- [Menta](#)
- [Militar](#)
- [Health](#)
- [Patier](#)
- [Policy](#)
- [Prima](#)
- [Public](#)



Synonym Ring





Hierarchy

Professions

- **Audiologists**
- **Behavioral Health Occupations**
 - Marriage and Family Therapists
 - Mental Health Counselors
 - Psychiatric Aides
 - Psychiatrists
 - Psychologists
 - Substance Abuse and Behavioral Disorder Counselors
- **Chiropractors**
- **Community and Social Services Occupations**
 - Community Health Workers
 - Health Educators
 - Patient Navigators
 - Personal and Home Care Aides
 - Social and Human Services Assistants
- **Dental Occupations**
 - Dental Assistants
 - Dental Hygienists
 - Dental Laboratory Technicians
 - Dentists

National Agricultural Library
Agricultural Thesaurus and Glossary, 2010 Ed.

dogs

Spanish

perros

USE FOR And Type

dog feeding

Used For

canine

Canis familiaris

domestic dogs

Broader Term

mammals

Narrower Term

puppies

service dogs

therapy dogs

Related Term

Canidae

dog diseases



Thesaurus



**NATIONAL
LIBRARY OF
MEDICINE**

**MEDICAL SUBJECT
HEADINGS**



[MeSH Home](#) | [Contact NLM](#) | [Site Index](#) | [Search Our Web Site](#) | [NLM Home](#)

[Health Information](#) | [Library Services](#) | [Research Programs](#) | [New & Noteworthy](#) | [General Information](#)

MeSH Browser (2010 MeSH):

The files are updated every week on Sunday.

[Go to 2011 MeSH](#)

Enter term or the beginning of any root fragments: or

Search for these record types:

- Main Headings
- Qualifiers
- Supplementary Concepts
- All of the Above
- Search as MeSH Unique ID
- Search as text words in Annotation & Scope Note

Search in these fields of chemicals:

- Heading Mapped To (HM) (Supplementary List)
- Indexing Information (II) (Supplementary List)
- Pharmacological Action (PA)
- CAS Registry/EC Number (RN)
- Related CAS Registry Number (RR)

Creating a Thesaurus Step-by-Step

1. Generate Wordstock
2. Decide on Format, Choose Preferred Terms & Identify Synonyms
3. Choose Hierarchies and Facets
4. Add Associative Relationships
5. Select Thesaurus Design and Display

Welcome to
THESAURUS

Please drive carefully,
warily, heedfully,
cautiously,
conscientiously,
thoughtfully through the
village, community,
town, hamlet,
settlement.



Subject Experts



Users

Sources of Wordstock



Your
Organization



Publications

A Combined Approach

Existing Thesauri
Organizational
terminology

Top-Down



Bottom-Up

Search logs
Publications
Subject experts

Exercise

subjects

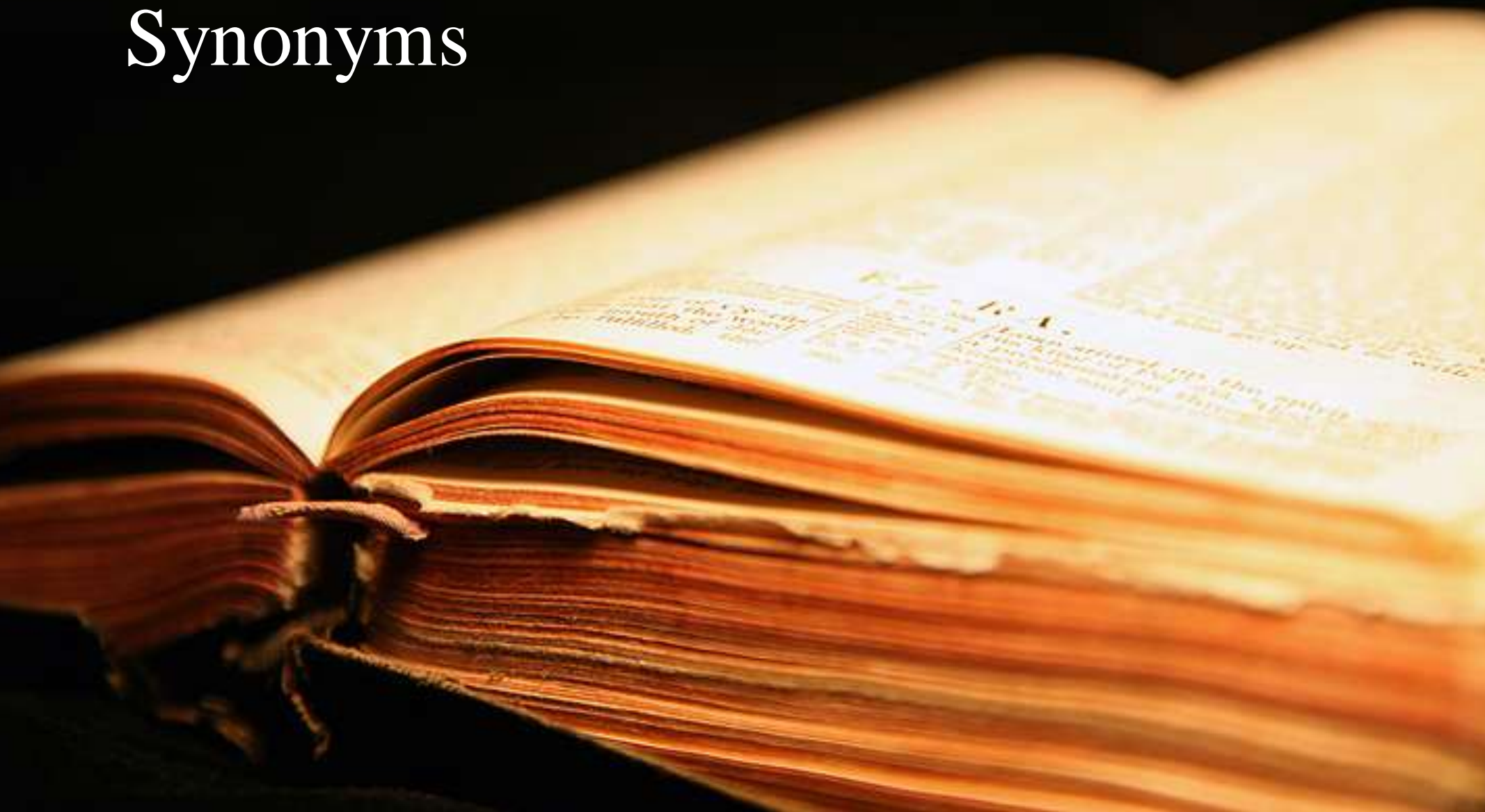
names: place names, personal

names, organization names

format: physical material, size, color

time: date, season

Step 2: Decide on Format, Choose Preferred Terms & Identify Synonyms



All Topics A-Z

- Abuse, see [Domestic Violence](#)
- Adoption, see [Children's Health and Welfare](#)
- Adult Education, see [Workforce Development](#)
- Adult Social Services, see [Welfare and Income Support](#)
- Affordable Care Act, see [Health Reform](#)
- After School Programs, see [Child Care](#)
- [Aging](#)
- [Agricultural Health and Safety](#)
- [AIDS and HIV](#)
- Ambulance services, see [Emergency Medical Services](#)
- [American Recovery and Reinvestment Act](#)
- Behavioral Health, see [Mental Health](#)
- Bioterrorism, see [Emergency Preparedness and Response](#)
- Building, see [Capital Funding](#)
- CAHs, see [Critical Access Hospitals](#)
- [Capital Funding](#)
- Career Advancement, see [Workforce Development](#)
- Caregiving, see [Informal Caregiving](#)
- CHCs, see [Federally Qualified Health Centers](#)
- [Child Care](#)
- [Child Support](#)
- Child Welfare, see [Children's Health and Welfare](#)
- [Children's Health and Welfare](#)
- Churches, see [Faith-Based Initiatives](#)
- [Clinics](#)
- Collaboration, see [Networking and Collaboration](#)

Exercise

**resolve synonyms
capitalization, abbreviations,
plurality, abstract concepts,
compound terms**

MeSH Tree Structures - 2010

N06 - Environment and Public Health

[Environment and Public Health \[N06\]](#)

[Environment \[N06.230\]](#)

[Altitude \[N06.230.058\]](#)

[Cities \[N06.230.069\]](#)

[Confined Spaces \[N06.230.074\]](#)

[Conservation of Natural Resources \[N06.230.080\]](#)

[Conservation of Energy Resources \[N06.230.080.078\]](#)

Step 3: Choose Hierarchies and Facets

[Rescue Work \[N06.230.100.350\]](#)

[Ecosystem \[N06.230.124\]](#)

[Biodiversity \[N06.230.124.049\]](#)

[Endangered Species \[N06.230.124.049.250\]](#)

[Biomass \[N06.230.124.100\]](#)

[Ecological Systems, Closed \[N06.230.124.240\]](#)

[Food Chain \[N06.230.124.250\]](#)

[Wetlands \[N06.230.124.625\]](#)

[Energy-Generating Resources \[N06.230.132\]](#)

[Biofuels \[N06.230.132.128\]](#)

[Fossil Fuels \[N06.230.132.258\]](#)

[Coal \[N06.230.132.258.108\]](#)

[Coke \[N06.230.132.258.108.110\]](#)

[Petroleum \[N06.230.132.258.630\]](#)

[Fuel Oils \[N06.230.132.258.630.500\]](#)

[Gasoline \[N06.230.132.258.630.540\]](#)

[Kerosene \[N06.230.132.258.630.600\]](#)

Hierarchies to Broaden and Narrow



skip navigation 1-888-332-4942

Health Workforce
Information Center

Events &
Training

Organizations

Funding &
Opportunities

News &
Updates

Professions

- [Audiologists](#)
- [Behavioral Health Occupations](#)
 - Marriage and Family Therapists
 - Mental Health Counselors
 - Psychiatric Aides
 - Psychiatrists
 - Psychologists
 - Substance Abuse and Behavioral Disorder Counselors
- [Chiropractors](#)
- [Community and Social Services Occupations](#)
 - Community Health Workers
 - Health Educators
- [Massage Therapists](#)
- [Medical Interpreters](#)
- [Medical Librarians](#)
- [Midwives](#)
- [Nursing Occupations](#)
 - Certified Registered Nurse Anesthetists
 - Clinical Nurse Specialists
 - Licensed Practical Nurses and Licensed Vocational Nurses
 - Nurse Practitioners
 - Registered Nurses
- [Occupational Health and Safety Occupations](#)

- Public health
 - Bioterrorism
 - Epidemiology
 - Family planning
 - Teen pregnancy
 - Health screening
 - Mammography
 - Health status
 - Immunization
 - Minority health
 - Mortality
 - Infant mortality
 - Occupational safety 
 - Agricultural health and safety
 - Pandemic
 - School health

Occupational safety

Promotion and maintenance of physical and mental health in the work environment.

Update

Broader terms

Public health

Related terms

Narrower terms

Agricultural health and safety

See References

Facets to Specify

Format

Any Format

- HTML (2)
- Kindle Books (22)
- PDF (3,315)
- Printed Books (1,446)

Binding

Any Binding

- Hardcover (402)
- Large Print (16)
- Paperback (1,007)
- School & Library Binding (2)

Narrow Results

By Type

- [Awards \(Honorary\)](#) (7)
- [Awards \(Monetary\)](#) (3)
- [Educational Opportunities](#) (15)
- [Fellowships](#) (3)
- [Free or Discounted Registrations](#) (1)
- [Grants and Contracts](#) (9)
- [Incentive Programs](#) (9)
- [Loan Repayment Programs](#) (43)
- [Loans](#) (7)
- [Scholarships](#) (37)
- [Technical Assistance](#) (9)

By Topic

By Profession

By Location

Color

- White (491)
- Black (433)
- Gray (211)
- Blue (146)
- Silver (103)
- Brown (79)
- Multi (71)
- Red (50)

Brand

- Adidas (24)
- Adidas by Stella McCartney (14)
- Adidas Originals (2)
- Adidas Running (16)
- Adidas Y-3 by Yohji Yamamoto (11)
- Adio (1)

Price

- \$50.00 and Under (124)
- \$100.00 and Under (1474)
- \$200.00 and Under (1829)
- \$200.00 and Over (24)

Type

Award (honorary) ▼

- Award (honorary)
- Award (monetary)
- Fellowship
- Free or discounted registration
- Grant or contract
- Incentive
- Loan
- Loan repayment
- Scholarship
- Technical assistance
- Educational opportunity

Topic	Profession
<input type="checkbox"/> Academic Health Centers	<input type="checkbox"/> Allopathic Physicians
<input type="checkbox"/> Allied Health	<input type="checkbox"/> Audiologists
<input type="checkbox"/> Area Health Education Centers	<input type="checkbox"/> Behavioral Health Occupations
<input type="checkbox"/> Behavioral Health	<input type="checkbox"/> Billing Clerks
<input type="checkbox"/> Best Practices and Model Programs	<input type="checkbox"/> Cardiovascular Technologists and Technicians
<input type="checkbox"/> Care Coordination	<input type="checkbox"/> Certified Registered Nurse Anesthetists
<input type="checkbox"/> Clinics	<input type="checkbox"/> Chief Information Officers
<input type="checkbox"/> Compensation	<input type="checkbox"/> Chief Medical Information Officers
<input type="checkbox"/> Continuing Education	<input type="checkbox"/> Chiropractors
<input type="checkbox"/> Correctional Health Facilities	<input type="checkbox"/> Clinical Laboratory Technologists and Technicians
<input type="checkbox"/> Cultural Competence	<input type="checkbox"/> Clinical Nurse Specialists
<input checked="" type="checkbox"/> Disparities	<input type="checkbox"/> Community and Social Services Occupations
<input type="checkbox"/> Distribution	<input type="checkbox"/> Community Health Workers
<input type="checkbox"/> Diversity	<input type="checkbox"/> Cytotechnologists
<input type="checkbox"/> Economy	<input type="checkbox"/> Dental Assistants
<input checked="" type="checkbox"/> Education and Training	<input type="checkbox"/> Dental Hygienists
<input type="checkbox"/> Evaluation	<input type="checkbox"/> Dental Laboratory Technicians
<input type="checkbox"/> Faculty	<input checked="" type="checkbox"/> Dental Occupations
<input type="checkbox"/> Federally Qualified Health Centers	<input type="checkbox"/> Dentists
<input checked="" type="checkbox"/> Financial Aid	<input type="checkbox"/> Diagnostic Medical Sonographers
<input type="checkbox"/> Geriatrics	<input type="checkbox"/> Dietitians and Nutritionists
<input checked="" type="checkbox"/> Health Care Access	<input type="checkbox"/> Doulas

Funding by Topic

- [Physicians and mid-level practitioners](#)
- [Poverty](#)
- [Public health](#)
- [Scholarships, fellowships and loan repayment](#)
- [Schools](#)
- [Substance abuse](#)
- [Technology](#)
- [Telehealth](#)
- [Transportation](#)
- [Veteran Health](#)
- [Wellness](#)
- [Women](#)
- [Workforce](#)

Funding by Type

- [Awards \(Honorary\)](#)
- [Awards \(Monetary\)](#)
- [Educational Opportunities and Fellowships](#)
- [Grants and Contracts](#)
- [Loan Repayment Programs](#)
- [Loans](#)
- [Scholarships](#)
- [Technical Assistance](#)

Exercise

hierarchy – NT & BT
facet

Step 4: Add Associative Relationships

RT

See also

Emergency Medical Services

Emergency medical services (EMS) comprise a system of care for victims of sudden and serious injury require the services of an ambulance at least twice in the course of their lives. Thus, the developed areas.

Rural EMS systems face substantial challenges. Few rural communities have paid EMS personnel, depend on non-EMS related vocations within the community, yet continue to donate their personal time to provide services. Rural regions lead to higher costs for EMS care, but there are fewer tax dollars to fund EMS programs. Rural EMS.

Additionally, poor access to training and medical supervision, higher response times, dated equipment and insufficient communications systems all combine to make rural EMS an area of critical concern.

Sources: Institute of Medicine [Future of Emergency Care Series: Emergency Medical Services: At the Crossroads](#), [Collaboration: The Future of Rural Health](#). Washington, DC: The National Academies Press (2005), [McIntyre, J. Emergency Medical Services: Agenda for the Future](#) Kansas City, MO: National Rural Health Association, [Emergency Medical Services in Rural Health](#).

Related Guides

- [Emergency Preparedness and Response](#)
- [Trauma](#)

Other Guides

Topics A-Z

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#)
[H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#)
[O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#)

Exercise

**Connect concepts using
“See also” and RT**



Step 5: Select Thesaurus Design and Display

Electronic

Print

External view

Internal view

Facets

BT, NT, RT

Topical

Alphabetical

Visual

Textual



You did it! But wait ...

tweet

e-books

top kill

Affordable Care Act

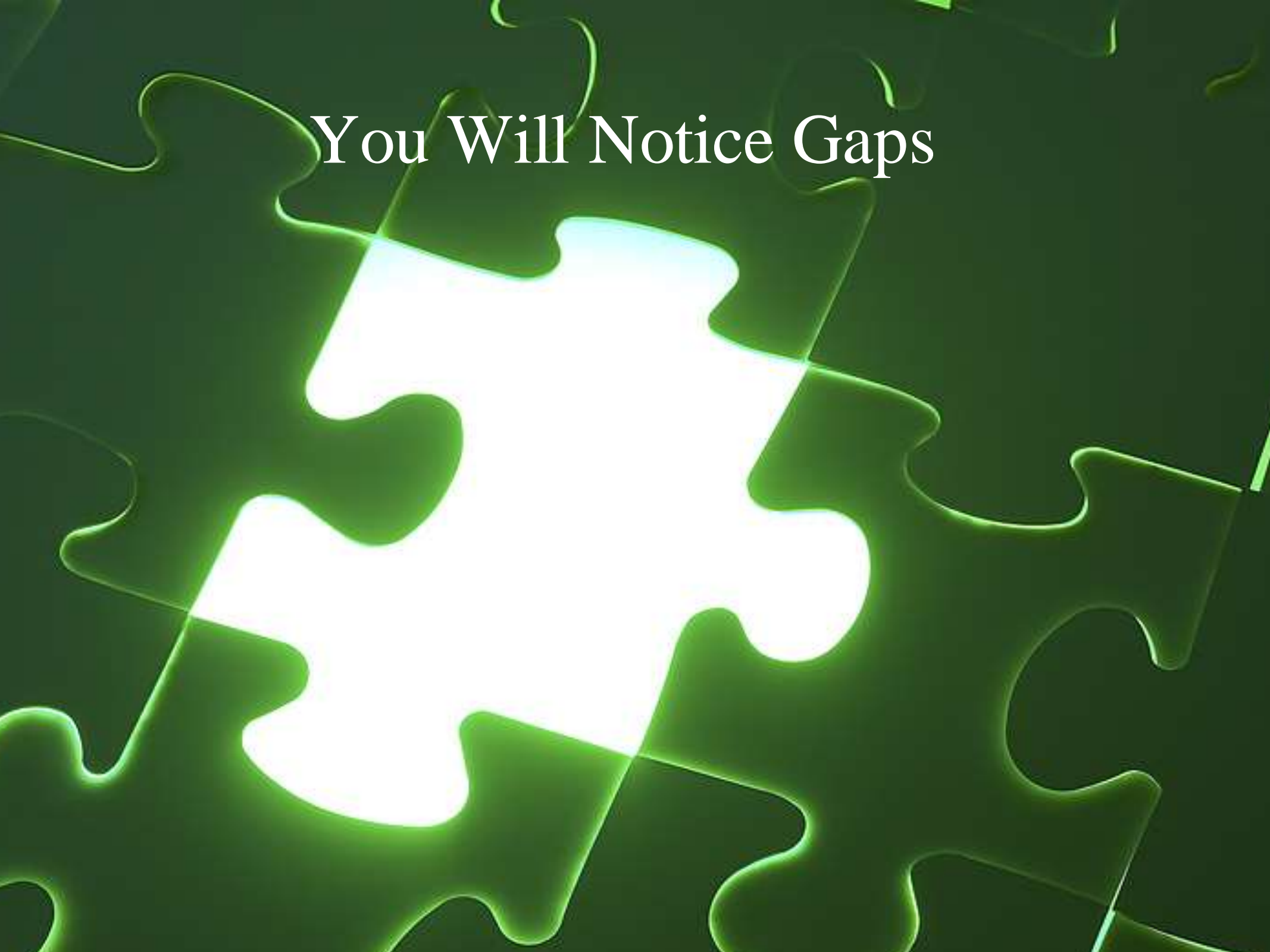
jeggings

Labradoodle

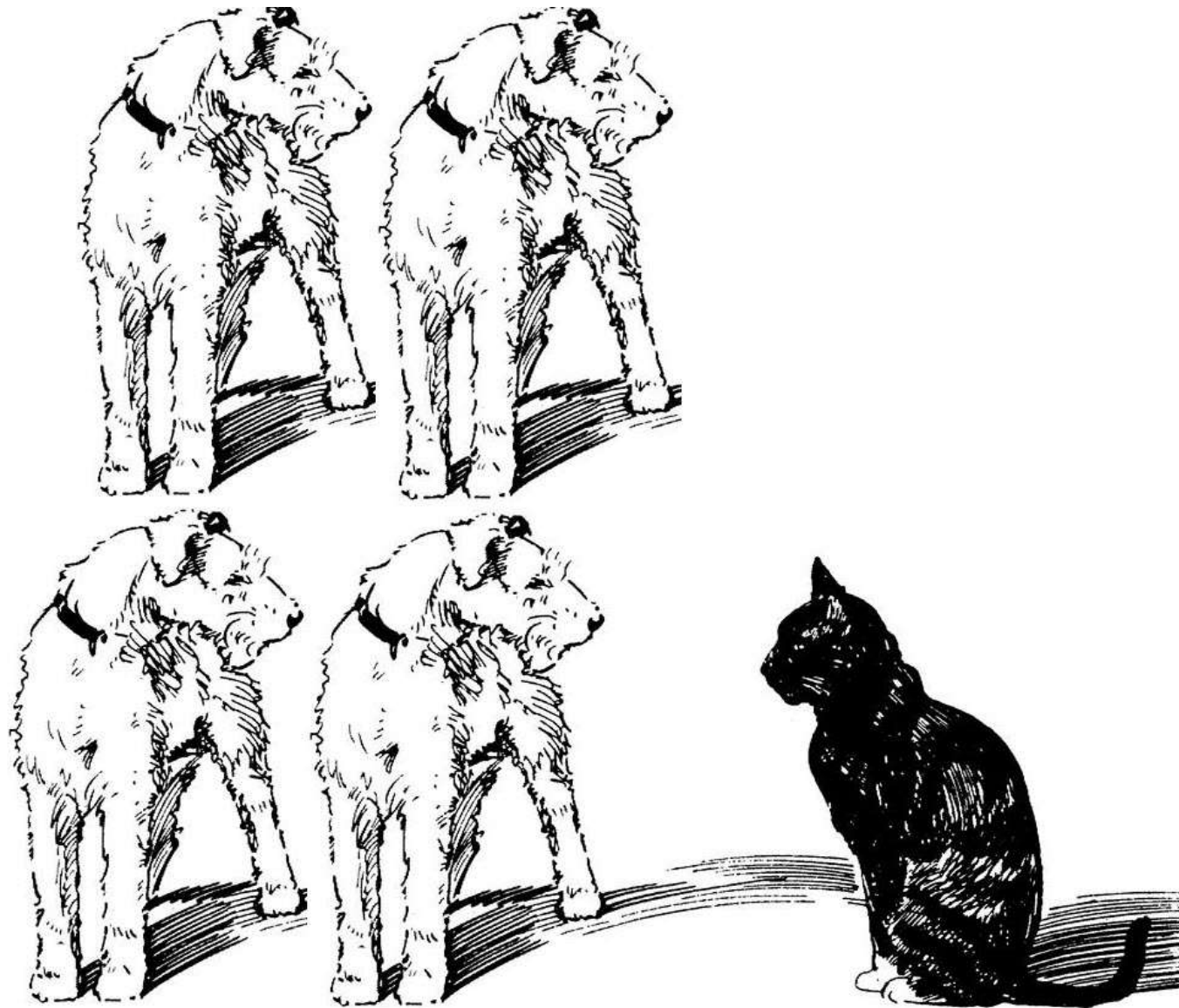
cloud computing

iPad

You Will Notice Gaps



Your Collection Will Grow



The World Will Change



Health Care Reform

Year introduced: 1994



Previous Indexing:

- [Delivery of Health Care \(1970-1993\)](#)
- [Health Planning \(1968-1992\)](#)
- [Health Policy \(1981-1993\)](#)
- [Health Services \(1977-1993\)](#)

<http://www.ncbi.nlm.nih.gov/mesh/68018166>

Update a subject

Health reform

Major health policy creation or changes that affect health care delivery.

Update

Broader terms

[Legislation and regulation](#)

Related terms

[Health policy](#)

Narrower terms

[Affordable Care Act](#)

[See References](#)

Planning and Maintenance

- Expect and plan for change
- Collect suggestions
- Systematically look for additions
- Schedule time to address potential changes
- Document your process





Document It

- Purpose
- Content
- Structure and format
- Update process

Tips to Jump Start Your Project



Your resources

- Why do you want a controlled vocabulary? Is a CV necessary? Are there alternative solutions?
- Do you have the resources to develop *and maintain* a CV? Training, time, staff, software...
- Are you prepared for future growth/additional terms?

Tips to Jump Start Your Project

Your content

- What are your topics? Will the collection's coverage change over time?
- What sources can you use for wordstock?
- What is the broadest level of vocabulary you could use for this project?

Tips to Jump Start Your Project

Your users

- Who are the potential users of this collection? Do you need different entry terms for different audiences?
- Who will be indexing materials and using the controlled vocabulary?

Resources & Future Directions



Questions?

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Center *for*
Rural Health

The University of North Dakota
School of Medicine & Health Sciences