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Software support for developing semantically well-structured thesauri

TermMaster and the
Alcohol and Other Drug (AOD) Thesaurus

Examples

Purpose

1   Illustrate advanced features of thesaurus development software

2   Illustrate a thesaurus format that expressly represents the semantic structure of a thesaurus

Software support for thesaurus development and display

Principles

Support the development and management of hierarchies

Database with multiple thesauri

Use the combined knowledge in creating new thesauri

Functions

Flexible display of thesaurus data

Support for thesaurus development and maintenance.

Database of multiple thesauri

Use multiple sources

Maintain multiple thesauri, establish conversion

Output formats to support use of a thesaurus in retrieval systems

Flexible display of thesaurus data, especially hierarchies

Examples from the AOD Thesaurus

Overview of thesaurus parts (exhibit A)

Detailed outline (B)

Quick hierarchy (C)

Annotated hierarchy (D)

KWOC index (E)

Annotated alphabetical list (F)

Simple example for data input and display

Entries from the AAT arranged in a hierarchy with meaningful sequence

Input file (G)

Resulting annotated hierarchy (H)

Note preservation of hierarchical sequence and generation of notations

Print command file for annotated hierarchy (I)

Note instructions for inclusion of terms, type size, and other formatting options

Note mapping of (detailed) internal relationship types to (broad) external relationship types

Support for thesaurus development

Import, input, and editing of thesaurus data, esp. hierarchies

Input files for three thesauri (J)

Print command files and publication output examples (K)

Pulling in data from other thesauri through an "edit print"

Reference print for lexicographer (L)

File for editing and reinput (M)

Comparison with other thesauri (N)

Amended AOD hierarchy (O)

Generating draft hierarchy from BT/NT relationships

No example, but see expanded hierarchy (P)

Pulling in data from other thesauri
Individual entries

Thesaurus aod

. . adolescent
> **SN Girl age 11 - 18, boy age 13 - 19.**
> **ET pubescent**
> **BT special populations**
> **NT high risk youth**
> **RT youth (stage of life)**
> **RT adolescence**

Thesaurus s1 (Fig. 2b, p. 163):

Teenager   DE
> **ET Pubescent**
> **NT Pregnant teen**
> **NT Teenage mother**

Thesaurus s2 (Fig. 2c, p. 164):

. Teenagers
> **ST Youth (Young Person)**
> **RT Junior High Students**
> **RT High School Students**

. . Runaway Youths

Pulling in data from other thesauri
Cumulative entry

Thesaurus aod, enhanced
Edit print, reference print for lexicographer (L)

[2]**TA8** . . **adolescent** (aod: DE)
  SN   Girl age 11 - 18, boy age 13 - 19.
  ST   *teenager* (s1: DE, s2: DE, s2: SW)
  ST   *youth (young person)* (s2: NP)
  ET   *pubescent* (aod: NP, s1: NP, s1: SW)
  ET   *teenager* (s1: DE, s2: DE, s2: SW)
  NT   TZ2.2 high risk youth
  NT   pregnant teen **(+)**
  NT   runaway youths **(+)**
  NT   teenage mother **(+)**
  BT +TZ4 special populations
  BT   persons by age **(+)**
  RT +LJ6 youth (stage of life)
  RT   LJ6.4 adolescence
  RT   TN6 junior high school student **(+)**
  RT   TN8 high school student **(+)**

Thesaurus aod, enhanced
Edit print, file for editing and re-input (M)

. . adolescent
    SN Girl age 11 - 18, boy age 13 - 19.
    ST teenager
    ST youth (young person)
    . . .

Comparison with other thesauri

AOD comparison print, long. (N)

adults B10 (aod: DE, s2: DE, s2: SW)
   adult +TA10

*aged persons B10-5 (aod: NP, s2: DE)
   aged person
   elderly TA10.2 (aod: DE, s1: NP, s1: SW)

. . .

#retirement homes M5 (s1: NP, s2: DE)

^#home   (aod: SW, s1: SW, s2: SW)
   nursing home resident TU2.2.2 (aod: DE, s2: DE)

^#retirement   (s1: SW, s2: SW)

Other example (Fig. 6b3, p. 178)

#alcohol treatment facility
^*alcohol [stopword]
^treatment [stopword]
^*facility (aod: DE, ...)
   . . .
   AODD treatment facility +A20.16 (aod:DE)

Output formats to support use of a thesaurus in retrieval systems

Expanded hierarchy to support inclusive searching (P)

Builds on the basic hierarchy, preserves its structure

Export formats

Comma-delimited, quoted ASCII file for import into Dbase (P2, left column)

Export format for DB TextWorks (Inmagic) for online display of the thesaurus