Search Engine Optimization Experience

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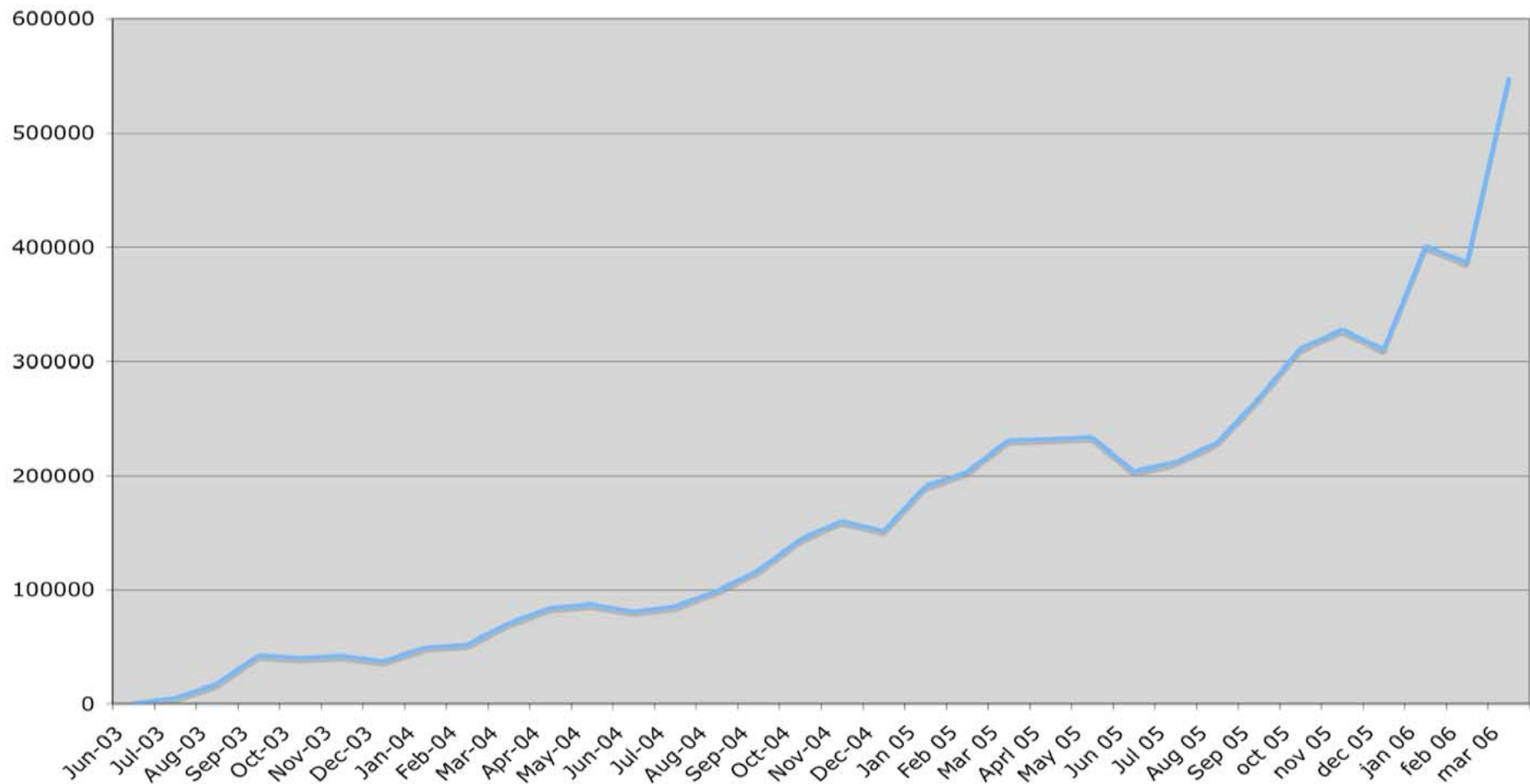jpalme@dsv.su.se

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Case study: Web4Health

From 0 to 500 000 visitors/month in three years without paying anything for advertising!

http://web4health.info/

Free medical advice on mental health, psychology, personality disorders, relationships, stress, anxiety, depression, emotional abuse, substance abuse, sexual abuse, types of mental illness, etc.

Web4Health

Psychology Free Online Medical Advice

Answers to more than 700 questions about psychology, mental health and relationships, written by a team of experts appointed by the Commission of the European communities.

OTHER LANGUAGES

Suomi

Italiano

Svenska

Deutsch

Greek

INTELLIGENT NATURAL-LANGUAGE QUESTION-ANSWERING

Ask a simple question in one sentence (Note: Our answers are not oriented towards somatic - body - medicine): ⓘ

[Submit Question]   Advanced search   POWERED BY QUICKASK

CATEGORIES

Addiction	**Healthy living**	**Psychotherapy**
Anorexia	**Life**	**Sex**
Anxiety	**Mood swings**	**Sleeping problems**
Bulimia	**Obesity**	**Stress symptoms**
Child care	**Phobia**	**Treatment**
Depression	**Psychiatric drugs**	**Workplace**
All menus	**All answers**	**More......**

web site with 800 informational pages

Web4Health access statistics March 2006
548 537 total number of visitors/month
1 400 232 pages downloaded/month
7 472 376 hits since site opened
Income from Google Adsense ads: $1505

48,4%	English
22,3%	German
5,3%	Greek
6,0%	Italian
18,0%	Swedish
10,8%	Finnish

Distribution of visitors by language

Google Advertisting Income March 2006

792159 = Page Impressions
8449 = Clicks
1,07% = Click through frequency
$1,90 = income/click
$1506 = Total income

Goals of large Search Engines like Google

Find the best possible answer to a user's questions.

Methods for search engines to achieve this:

They look at various properties of a page, like title, text, incoming and outgoing links, style, topical area, etc.

How to get many visitors from Search Engines

Method 1: Make a very good web site.

Method 2: Make the Search Engines believe that you have a very good web site.

How Search Engines Rank Web Pages, answer 1

Make a web sites which is:

1. Unique
2. High quality
3. Lots of different pages with different titles
4. Avilable in multiple languages

How Search Engines Rank Web Pages, answer 2

5. Many external incoming links from pages which themselves have a high ranking.

6. As exact match as possible for the query phrase:

   a. In the title (repetition in the title?).

   b. Also in text in links pointing to this page (also internal links are of value).

   c. Also elswewhere in readable text in the body, repeated 2-3 times, if the phrase is repeated more than 2-3 times, there is a risk that the search engine will regard it as spamming.

   d. Some engines also look at meta-description and meta-keywords.

7. Manual classification for the most common search phrases.

Get Many Links to your Web Site

SEO is no magic, it is hard, tedious work. For Web4Health, important was that I submitted the site to Yahoo, The Open Directory and other high-rank pages. I also searched the web for high quality pages in the same area as ours, and wrote letters to them, asking for a link to our site, and promising a reciprocal link from our site to their site.

A somewhat less ethical way is to put links from other sites which you control. Thus, I put links from the web areas http://www.palme.nu/ and http://dsv.su.se/jpalme/.

Other partners in the Web4Health project also put links from their personal sites to our site.

Note: Links from sites with domain names or IP numbers similar or equal to the optimized site have less value. Thus, since http://cmc.dsv.su.se/ is on the same IP number as http://web4health.info/, links from the http://cmc.dsv.su.se/ are not as useful.

Optimize for Good "Niche" Search Phrases

It is usually impossible to optimize for single words, because there is too much competition. Instead, you optimize for good 2-3 word search phrases. A good search phrase should:

1. Occur often in search phrases to search engines.
2. Not occur prominently in too many high quality competitive pages.

Optimizing includes:

1. Finding popular search phrases. There is no value in optimizing a page for the phrase "How children react to trauma", because no one ever types that phrase into a search engine.
2. Checking the competition in other pages, especially high quality pages, for the same search phrase.
3. Find niches, phrases which users type, and which have not too hard competition.

Example of phrase optimization

FAQ identifier   child-trauma-symptoms

Original title   How children react to trauma

Optimized title 1   Effects of child abuse

Optimized title 2   How children react to trauma and effects of child abuse

No.	Keyword	KEI Analysis	Count	24Hrs	Competing	
1	"effects of child abuse"	51.124	187	70	684	
2	"child abuse statistics"	43.210	402	150	3740	
3	"child sexual abuse trauma symptoms"	16.000	4	1	0	
4	"signs of child molestation"	9.846	16	6	26	
5	"articles on child abuse"	9.074	82	31	741	
6	"symptoms of child molestation"	6.750	18	7	48	
7	"child molestation law"	4.500	15	6	50	
8	"information on child abuse"	3.531	161	60	7340	
9	"child abuse laws"	3.522	127	47	4580	
10	"child molestation statistics"	3.411	18	7	95	
11	"child molestation"	0.671	213	80	67600	
12	"child abuse prevention"	0.564	241	90	103000	
13	"child abuse cases"	0.445	112	42	28200	
14	"child sexual abuse"	0.431	373	139	323000	
15	"child abuse and neglect"	0.109	168	63	258000	
16	"molestation"	0.058	121	45	252000	
17	"child trauma"	0.002	3	1	5900	

Google

always tired

Search

Web   Results **1** - **10** of about **40,000,000** for **always** **tired**. (0.23 seconds)

Stop Being **Tired**   Sponsored Link   Sponsored Links
www.stop-being-**tired**.com   Easy-to-follow program. No pills. No gimmicks.

Dream More
need a good nights sleep?
all natural guaranteed

Why am I **always Tired**? **Tired** all day? Medical Causes?
Medical conditions which can cause fatigue (tiredness).
web4health.info/en/answers/soma-cfs-other.htm - 20k - Cached - Similar pages   www.naturalsleepsecrets.com/?hop=0

    Physical symptoms of depression
    These symptoms include aches and pains, weight loss, constipation, tiredness **always**
    tired, More about tiredness), loss of appetite, loss of interest in sex ...
    web4health.info/en/answers/bipolar-phys-depr.htm - 22k - Cached - Similar pages

Beating Tiredness
Stop, heal & control tiredness now
Fast, easy, effective, 100% natural
www.beating**tired**ness.com

Go Ask Alice!: **Always tired**
Dear Alice, I'm **always tired**. I get plenty of rest (at least eight hours a night), eat
healthy, and exercise regularly. I went to my doctor and he took ...
www.goaskalice.columbia.edu/0972.html - 14k - Cached - Similar pages

Help... **always tired**/sleepy/groggy
Sleep deprivation, Apnea Forum. Everything you wanted to know about sleep disorders
but were too **tired** to ask.
www.sleepnet.com/forum4a/messages/392.html - 7k - Cached - Similar pages

Clinical Research Message Board Comment: Subject:**Always tired** and ...
Subject:**Always tired** and irritable.Why? Message posted by ERIN () on 21:0:38
0/20/100. Message:. About a year ago I finally broke down and saw a doctor ...
www.sleephomepages.org/discussions/clinicalR/messages/msgs04253.html - 5k -
Cached - Similar pages

Other methods

Meta-keywords:

```
<META name="keywords" content="rape, Sexual
Abuse, Effects of Child Abuse, Symptoms of
Child Molestation, Symptoms of Child Abuse,
Effects of Child Molestation">
```
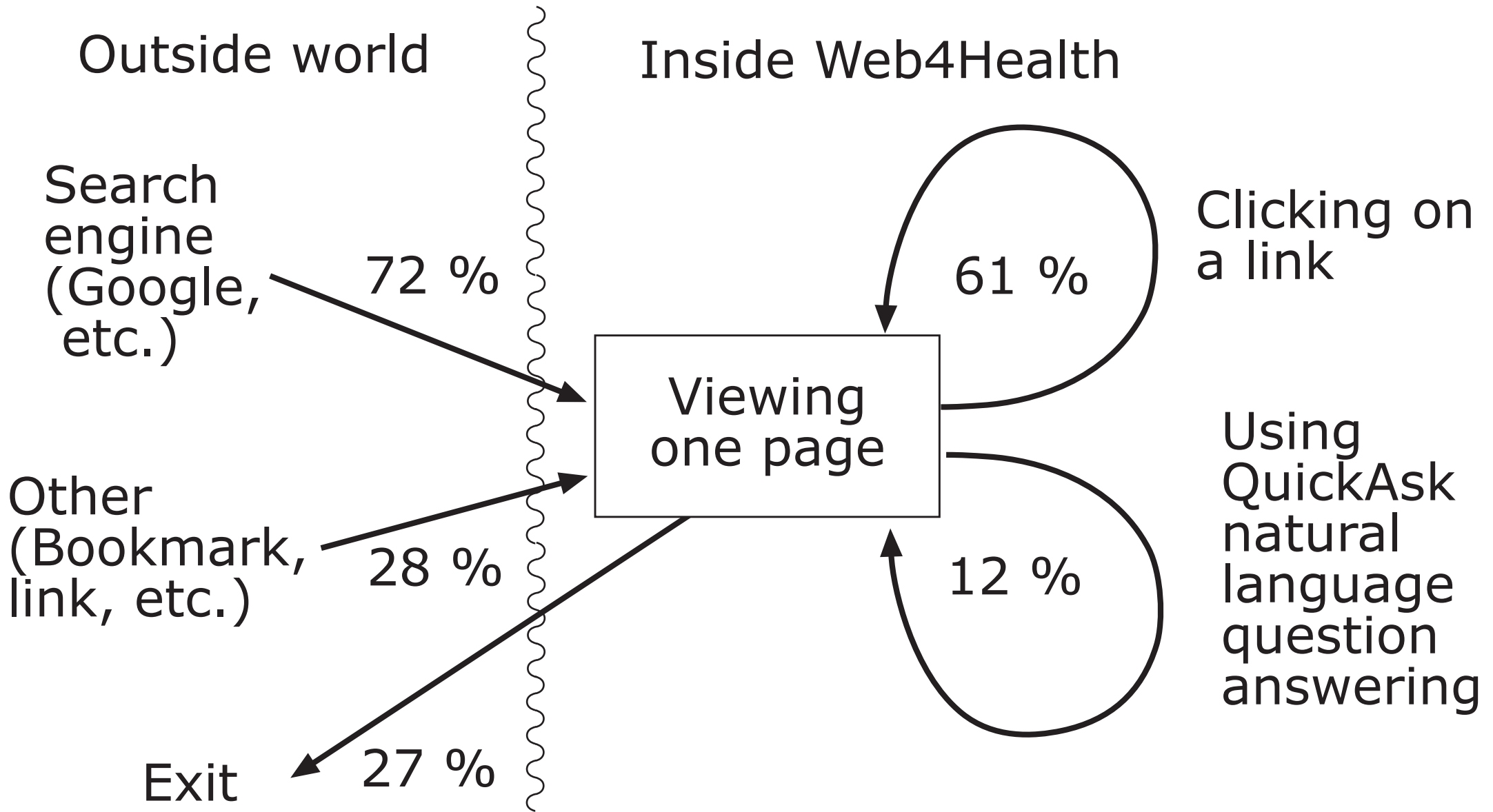
Meta-description:

```
<META name="description" content="Describes
the effects of child abuse and of other
childhood trauma.">
```

Search Engine Optimization

Method	Why it works	How we used it
High quality web site	Search engine rank web sites	Our main goal
Get links from external sites	Search engines count links to web site.	We asked a number of high quality sites to set links to our site.
Submission to search engines and portals	Users come from them, and search engines rank by them.	Yahoo, The Open Directory, the Sunet Directory.
Search phrase optimization	Search engines ranks by count of phrases, especially in titles.	We found popular search phrases for 78 of our best FAQs, and optimized them.
Relevant internal linking	More relevant key words refer to a page.	Yes, a lot.

Dubious/Unethical Methods of SEO

Method	Why it works	How we used it
Doorway pages	More links, links with different texts	A little
Cloaking	Giving search engine spiders different pages	No
White text on white background	Does not work, search engines have learned to recognize it	No
Lots of lots of keywords	Does not work, search engines have learned to recognize it	A little
Link farms	Does not work, because farms get low ranking	No

Outside world

Inside Web4Health

Search
engine
(Google,
etc.)

72 %

Viewing
one page

61 %

Clicking on
a link

Other
(Bookmark,
link, etc.)

28 %

12 %

Using
QuickAsk
natural
language
question
answering

Exit

27 %

Independent medical expert answers

Symptoms/Signs of Anorexia Nervosa ; Anorexia Symptoms; What is Anorexia

Intelligent natural language question-answering in the area of psychology and psychiatry. Ask a simple question ⓘ Info

[   ]

Submit question

Abstract: Describes anorexia symptoms, and give links to more information about signs of anorexia nervosa.

▲ Top ⇦Discuss this ⇦Ask an expert 🖨 Print

Written by: Gunborg Palme, certified psychologist and certified psychotherapist, teacher and tutor in psychotherapy.

Question(s):

First version: 28 Oct 2003. Latest revision: 03 Jul 2005.

Describe the symptoms of eating disorders like Anorexia Nervosa. What are the main signs of anorexia nervosa?

Answer:

… omitted text …

It can also depend on an addictive condition where starvation stimulates the body's reward centre. More.

… omitted text …

Causes of anorexia
Treatment of anorexia
Not eating can give a feeling of satisfaction
More about anorexia

Find a few related answers   Find many related answers

Quality of Search Result

Figures taken from a master's thesis at DSV and based on a random sample actual Swedish-language questions asked by visitors to Swedish medical web sites.

Note: These figures includes as negative result cases (about 10 % of all questions in the sample), where the web site did not have any answer to the question asked.

Search method	Percentage of search success
QuickAsk	90 %
Google restricted to a certain domain ("site:" command)	68 %

Why most site-internal search engines give bad results:

1. They only search on the words of the producers, not the words of the users.

   Example: One of the two site-specific search engines provided by försäkringskassan, Sweden.

   Search for "förtidspension" will work poorly, because the "correct" word is "sjukbidrag" and "aktivitetsersättning".

   Search for "daghem" works poorly because the "correct" word is "barnstuga".

2. No good prioritizing among the matching pages.

   Every good site-internal search engine requires manual classification by linguistic, not topic, experts.

Natural Language Question Answering

Title:	Is Self-Care/Self-Help Suitable Alternative Medicine?	Examples of questions:
Required 1:	self own myself himself herself yourself alone [without no [not ; any] ; care* help* aid* assist* support* backing*] unaided unsupport* unassist* chang* $treat	Without help Can I get better on my own? Can I get better without help of a doctor?
Required 2:	/ need* have must help* go went necessar* ; doctor* psychologis* psychother* profession* expert*	Must I get help from a doctor to stop smoking?
Required 3:	/ refus* reject* [say said says ; no] decline* deny deni* repel* spurn* disapprov* rebuff* resist* ; $therapy $psydrugs doctor* physicia* psychiatrist* psychotherapist*	What should I do if my doctor refuses to help me?
Required 4:	/ selfcare selfhelp	Is selfcare an alternative?
Priority:	[self ; help] doctor* psychologis* psychother* profession* expert* unaided unsupport* unassist* [without no [not ; any] ; care* help* aid* assist* support* backing*]	
Optional:	$treat quit* resign* withdraw* discontin* reling* terminat* cease* stop* renounc* $addiction $stimulants mental* illness* psycho* problem* hand* recommen* suitab* alternativ* $goodbad	

Några produkter för svensk sökning:

Produkt	Leve-rantör	Felstav-nings-kontroll	Svenska böjnings-former	Priroritering av vissa sidor	Synony-mer	Mönster	Sammanfattande bedömning
Quick-Ask	Asko-logy	Ja	Ja	Manuellt	Manuellt	Avan-cerat format	Mycket bra sökresultat men mera jobb med klassificeringen
Site-assis-tant web	Huma-ny	Ja	Ja	Manuellt	Automa-tiskt och manuellt	Enkla me-ningar	Enkel klassificering
Site-Seeker	Euro-Ling	Ja	Ja	Automa-tiskt och manuellt	Manuellt	Enkla me-ningar	Bra sökresultat, alla sidor behöver inte klassificeras
Google Site-Search	Google	Ja	Nej	Auto-matisk	Nej	Nej	Enkelt, bättre än de flesta site-interna sökverktyg men sämre än övriga produkter ovan. Ingen klassificering behövs.

Text and Structure

Subject trees

Fears, Phobias

Different Kinds of Phobias (Fears)
Social phobia • Cannot talk to people • Weight phobia • Fear to use public toilets

Causes
Low self-esteem • Suppressed feelings • Dreams • Phobia and anxiety • Trauma Incidence

Incidence
How many people suffer from phobia

Treatment
Snake phobia as an example of the treatment of phobia • Medicines • More about the treatment of phobia (external link)

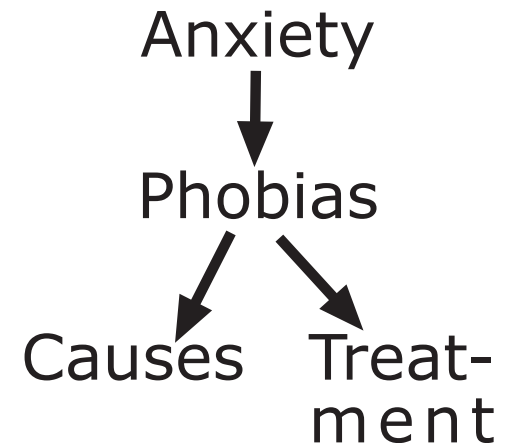## Internal links

... ...
... ...

A similar condition may accordingly be classified as anorexia, bulimia or overweight depending on how much a person weighs. For example, a person can begin with anorexia and then go over to bulimia.

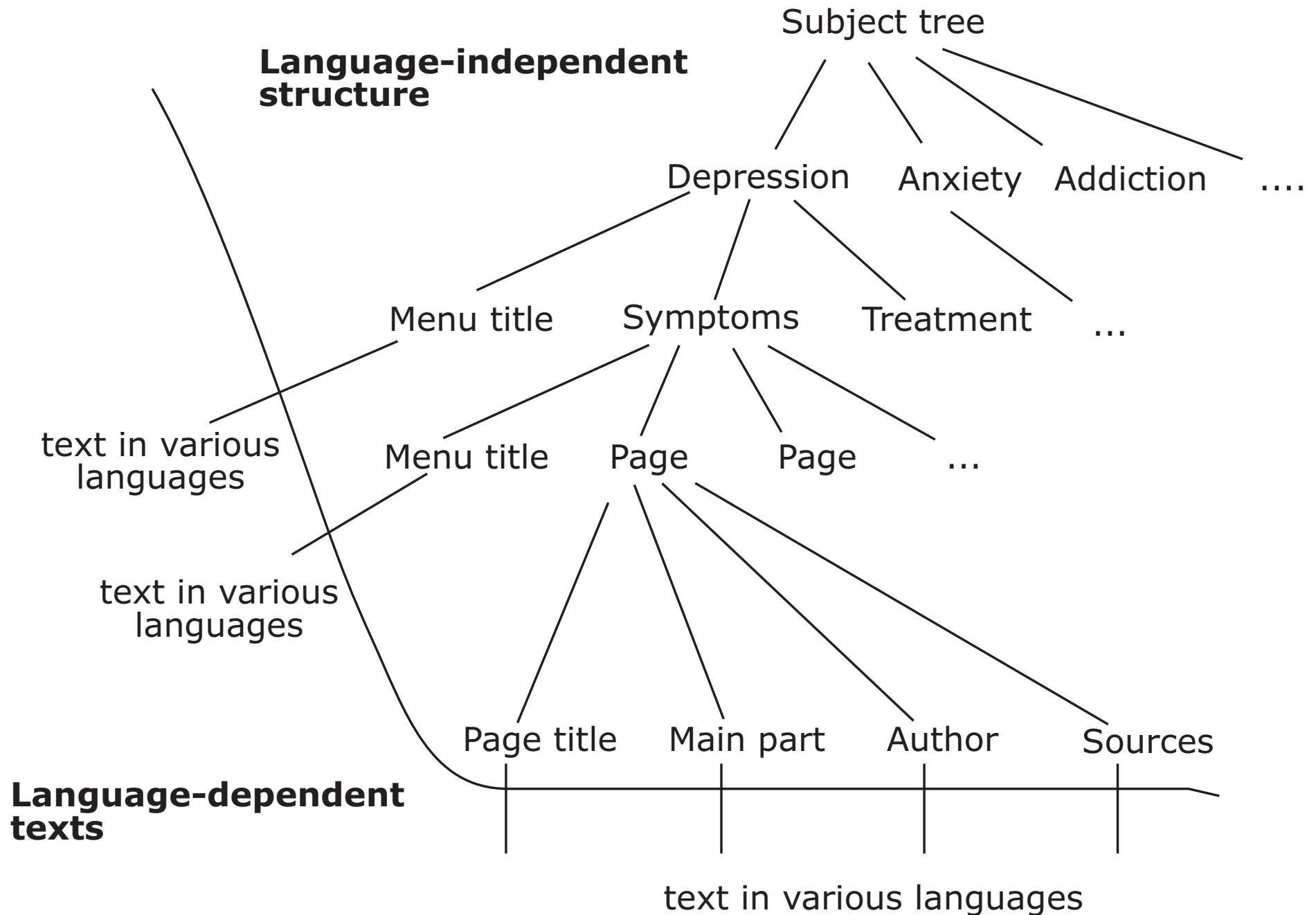Causes of anorexia
Treatment of anorexia

Classification or semantic web

INTELLIGENT NATURAL-LANGUAGE QUESTION-ANSWERING

Ask a simple question in one sentence (Note: Our answers are not oriented towards somatic - body - medicine): ⓘ

Submit Question

Anxiety
↓
Phobias
↙ ↘
Causes   Treat-ment

Separate structure and translatable texts

Language-independent structure

Subject tree
- Depression
  - Menu title
  - Symptoms
    - Menu title
    - Page
      - Page title
      - Main part
      - Author
      - Sources
    - Page
    - ...
  - Treatment
  - ...
- Anxiety
- Addiction
- ....

text in various languages

text in various languages

Language-dependent texts

text in various languages

Sources

Report of First Promotion Stage, by Jacob Palme
http://web4health.info/documentation/D-6-2-first-promotion.pdf

Managing a web site in several languages, by Jacob Palme, Terena networking conference 2005,
http://www.terena.nl/conferences/tnc2005/programme/presentations/show.php?pres_id=66

Natural Language Question Answering System, Classification Manual, by Jacob Palme and Eriks Sneiders,
http://web4health.info/documentation/D2-2b-classification.pdf

Good SEO sites

The UnFair Advantage on Winning the Search Engine War
http://www.searchenginehelp.com/

High Rankings Advisor
http://www.highrankings.com/

Search Engine Watch
http://searchenginewatch.com/

Wordtracker
http://www.wordtracker.com/

Web4Health: Report of First Promotion Stage
http://web4health.info/documentation/
D-6-2-first-promotion.pdf

A Swedish Book: "Sökmotormarknadsföring - Så får du fler besökare och kunder via sökmotorerna", by Urban Lindstedt and Christer Pettersson, http://www.nodigitmedia.se/