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Web4Health

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Final Report of User Interaction Services Report D5.3

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2 Executive Summary

xxxxxxxxx



3 User Interface for Ordinary Users

3.1 Home page

The Web4Health home page has the following layout:



The aim of Web4Health is to give good and useful free medical advice, help and self help in the areas of mental health, psychology, personality disorders, relationships, stress, anxiety, depression, emotional abuse, substance abuse, sexual abuse, types of mental illness, etc.

The main layout of this home page was designed by our partner NetDoktor, based on an initial interface made by KTH.

The home page contains the following areas:

3.1.1 Top Menu Bar

Home	Search	Categories	Discussion	Ask the Expert	Unseen	Login/out	My account

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Menu bar with access to our main services. This bar is maybe too much oriented towards login-based services, considering that most of our users never register or log in.

3.1.2 Site Abstract

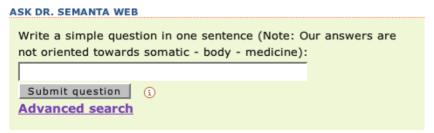
Psychology Free Online Medical Advice



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.

The site abstract gives a short description to the web site.

3.1.3 Natural-Language Question-Answering



This area allows the user to ask questions to our natural-language question-answering service. Only about 5 percent of all visitors to our web site use this service. We believe the reason for this is that visitors wrongly believe that the service is just as bad as ordinary so-called free-text search functions in web sites. We have discussed various ways of trying to make visitors understand that the service does more than this.

We have experimented with different titles for this service:

ASK A QUESTION

NATURAL-LANGUAGE QUESTION-ANSWERING

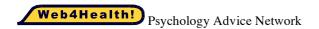
ASK DR. SEMANTA WEB

We have not evaluated these titles yet, but our purpose is to find new ways to draw end users' attention to this service.

3.1.4 Categories

CATEGORIES		
<u>Addiction</u>	Healthy living	Psychotherapy
ADHD	<u>Instability</u>	Relations
<u>Anorexia</u>	<u>Life</u>	<u>Sex</u>
<u>Anxiety</u>	Mood swings	Sleeping problems
<u>Bulimia</u>	Obesity	Stress symptoms
Child care	<u>Phobia</u>	<u>Treatment</u>
<u>Depression</u>	Psychiatric drugs	<u>Workplace</u>
All menus	All answers	More

This area gives access to the subject trees, which are a tool that allows users to easily find information in our web site.



3.1.5 HON verification and disclaimer



Disclaimer: The documents contained in this web site are presented for information purposes only. The material is in no way intended to replace professional medical care or attention by a qualified practitioner. The material in this web site cannot and should not be used as a basis for diagnosis or choice of treatment. If you find something which should be corrected, please write to cmc@dsv.su.se.

This contains the information that our site has been approved by HON, which checks medical web sites for qualityIt also contains a legal disclaimer and an address to which complaints can be sent.

3.1.6 Language Choice Area



This area allows users to select the user interface in the preferred language. One possible improvement is the addition of text specifying the language corresponding to each specific flag.

3.1.7 Forum News

RECENT DISCUSSIONS

04 Jun 14:02

Re: Discussion forums

14 Jun 02:50

I need sexual advice

15 Jun 12:53

daily dosage

23 Jun 11:46

Hilfe für meinen Sohn

LATEST QUESTIONS

26 Jun 02:21

Epilepsy

28 Jun 13:43

Re: Epilepsy

28 Jun 18:20

Hochsensible Personen

28 Jun 18:38

Re: Hochsensible Personen

These areas contain links to recent items in the discussion and ask-the-expert areas. We plan to change them, so that they show the latest information in only the language of the particular home page, and not, as it is implemented at the present, a list of links to discussion items in all languages.

The home page also includes, at the bottom, one sample FAQ. This changes every two hours and rotates among all the FAQs.

3.2 Subject Tree

The Categories area in the home page links to the pages in the subject tree. In subject trees data are hierarchically categorized according to their topics and users navigate the hierarchy downwards, starting from general items and digging into more specific ones. Through the use of subject trees users can quickly navigate to any portion of the knowledge collection without being overwhelmed by a vast search space. Subject trees are very useful when users need general information or an overview of the information available about a topic.

An example of a page from the subject tree is provided below:



Symptoms of ADHD

Difference between DAMP (Deficits in Attention, Motor Control and Perception) and ADHD (Attention Deficit Hyperactivity Disorder) Difference between ADD (Attention Deficit Disorder) and ADHD (Attention Deficit Hyperactivity Disorder) Different types of ADHD . Age of onset . Persistence of symptoms • Positive aspects of ADHD • Inflexibility • Impulsiveness (Toddlers and ADHD • Distractibility • Change of symptoms • Situational variation • Procrastination • Obesity • Domains of impairment

Myths about ADHD

Sugar and ADHD •
"ADHD is not a real
disorder." • "Parents
are doping their
children."

Diagnosing ADHD Lab tests • ADHD diagnostic criteria •

diagnostic criteria •
ADHD or sleep
deprivation? • ADHD
and the frontal lobe

Causes

Causes of ADHD • Obesity

Treating ADHD with Medicines

Medication • Age at which to start medication • Targets of psycho stimulants • Side effect of stimulants and driving a car • Stimulants and sleeping problems • Stimulants and growth suppression • Can stimulants cause dysphoria? • Toxic effects

Other ways of Treating ADHD

Behavioural modification •
Alternative treatment •
Controversial therapies •
Zink • Feingold diet •
Consistent consequences

ADHD in adults

Treatment of adult attention problem • Treatment may have to continue for adults • Treatment of ADHD in adults

Difficulties connected with ADHD

Obesity • Pathologic gambling • Bedwetting • Tracking conversation • Negative self-esteem

All Web4Health menus

All Answers on ADHD in one Large Document

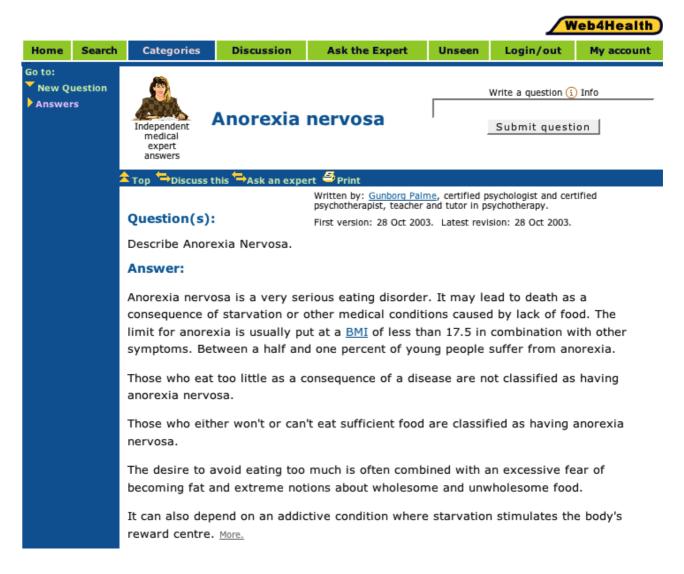
Some of the pages in the subject tree are rather large, and should maybe be split into smaller subpages.

3.3 FAQ view page

Below is an example of the page showing a single FAQ:

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Those with anorexia frequently deny that they are underweight, or ill, just as alcoholics deny that they are addicted to alcohol.

Women with anorexia often miss their menstruation several times in succession.

There are two main types of personality who are subject to anorexia:

- The restrictive type who limits all their eating and often have a strong will.
- The compulsive eating type who alternate between eating and removing all
 excessive nutrition in the same way as those with <u>bulimia</u>. Those with this type
 of problem often have other addictive conditions and difficulties with impulse
 control.

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 Not eating can give a feeling of satisfaction More about anorexia

Find a few related answers Find many related answers

Sources, references

3.3.1 Commands in the FAQ window

The FAQ window has the following commands:

New Question Directs to a page for submitting questions to the natural-language question-

answering system.

Top Moves to the top of the page.

Discuss this Directs to a forum for discussions on health issues.

Ask an expert Directs to the ask-the-expert area.

Print Directs to a print-friendly version of this FAQ

Find a few related

answers

Submits the title of this FAQ to the natural-language question-answering

system. This usually works well in showing a small list of closely related

FAOs.

Find many related

answers

Lists all FAQs which contain any of the words in the title of this FAQ. This

usually gives a long list of related FAQs.

Sources, references Links to a page with sources and/or references for the content of this FAQ.

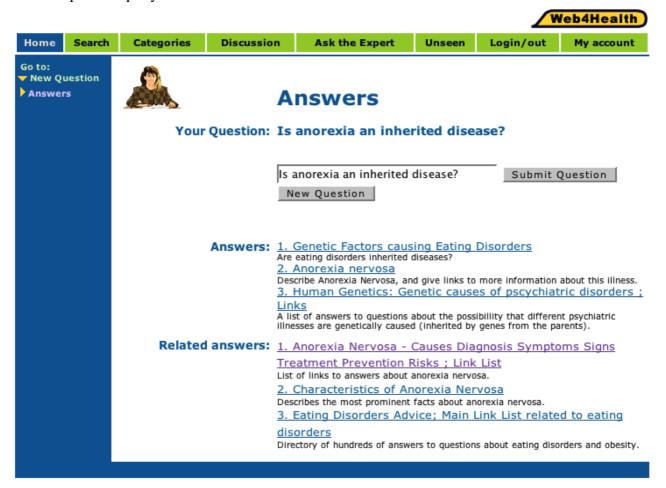
The FAQ window also has a top menu bar which is the same as the top-menu bar on the home page.

3.4 Natural-Language Question-Answering System

The natural-language question-answering system [1] automatically finds FAQs relevant to user questions, although with much higher precision than ordinary so-called free text search engines.



An example of a query result is shown below:



Disclaimer: The documents contained in this web site are presented for information purposes only. The material is in no way intended to replace professional medical care or attention by a qualified practitioner. The material in this web site cannot and should not be used as a basis for diagnosis or choice of treatment. If you find something which should be corrected, please write to cmc@dsv.su.se.

Copyright 2003 Web4Health

As shown above, our system returned six FAQs to the question "Is anorexia an inherited disease?", ranking the most relevant FAQ at the top of the list.

A "Related Answer" differs from an ordinary "Answer" in the following way: the number of terms (in the user question) that are not contained in the FAQ classification template is higher than a given limit.

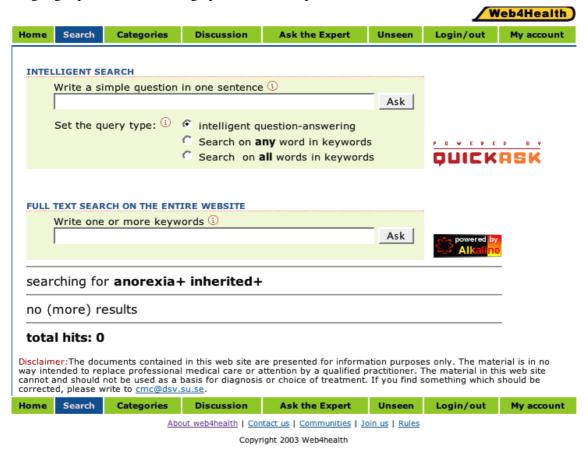
In the table below we present a comparative study of our natural-language question-answering system with some other search tools:



Search tool	Questions	Total No. of hits	No. of highly relevant answers among the first 10 hits	No. of answers on related topics among the first 10 hits
Web4Health (QuickAsk)	Is anorexia an inherited disease?	6	1	5
Google	Is anorexia an inherited disease?	11400	6	4
Google only on Web4Health	Is anorexia an inherited disease? site:web4health.info	0	0	0
Google only on Web4Health	anorexia inherited site:web4health.info	3	1	2
Alkaline ¹ any keyword on Web4Health	anorexia inherited	107	1	9
Alkaline all keywords	anorexia+ inherited+	0	0	0

3.4.1 Advanced search page

The advanced search page gives, in addition to the natural-language question-answering system, also access the Alkaline search engine, which is useful if you want to make an exhaustive search where you can accept low precision but want very high recall. Some variants of using the natural-language question-answering system are also provided.



¹ Alkaline is a standard so-called free text search engine. For more info, see http://alkaline.vestris.com/

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3.5 Ask The Expert Area

3.5.1 Asking a question

Here is part of the page for writing a question in the ask-the-expert area:

information - Psychological free medical advice, relationship advice, free counseling

Here you can ask questions, which will be answered by psychological-psychiatric experts. We provide Psychological free medical advice, relationship advice, free counseling. **Note that we do not answer questions on illnesses which are of purely biological (somatic) nature.**

Note that questions and answers will be published and readable by everyone. If you want to be anonymous, avoid specifying information which can identify you (except your e-mail address, see below). To preserve your anonymity, the string "******" is shown instead of the author name on entries in this conference.

If you want the reply sent to you by e-mail, you must <u>register</u> your e-mail address before writing the question. Your contributions will still be anonymous. The e-mail address you write will not be used in any kind of marketing and will not be shown or given out to anyone.

Web4health does not promise to answer all questions sent to this area. You have a better chance of getting an answer if you ask a short question (max 10-20 lines). You may have to wait one or a couple of weeks before you can see the answer to your question.

See other people's questions and their answers.

Write Question to Psychological free medical advice, relationship advice, free counseling

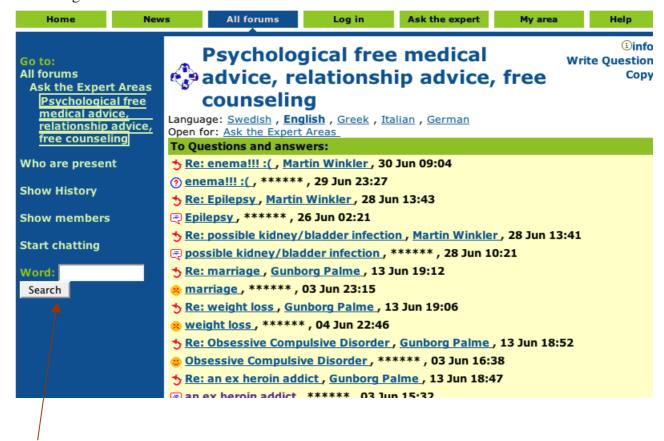
Author or secret name (pseudonym): ibu2z03as	1	_
Reply wanted by e-mail to:		This e-mail
address will never be shown to anyone else.		
Subject:	Submit	
Language: English 🔻		
Enter the text Plain Text C Guess C HTML C		

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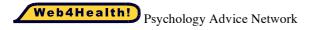
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Answers are sent by e-mail to the person asking the question (if the user requests this), and are also published on the web site.

The published, anonymous answers can be seen by all users. Here is the top of the window containing the list of the latest answers:



The search facility allows users to search for questions and answers containing a certain word.



3.5.2 Showing a question and its answer

Below is an example of the user interface of the Ask the expert area. Note that a whole discussion thread is shown on one page, so that the user can read the whole thread without having to click from page to page:



i think i could be a mixture of things, depression,or crazy, normal just into the unknown and depressed, or suffering from some childhood pain, but whatever it is i am really needy of love and attention especially from my guy. i also do selfish things and i think ialmost subconciously try to drive the people i want close far away from me.also i write alot of these thoughts down in a journal when im sad and tonight it happened and i was crying and looking in the mirror and asking myself why im like this and when i feel this way i feel like self hate, and i was like starring at myself and i was thinking about how i felt inside and as i looked the feelings got more clear and then i felt strange like i look different then i feel inside, and i started to stare deep into my eyes to see the real me. i want to see myself cuz its like i cant see me there and its a different thing to look in your own eyes, so as i looked i felt strange and saw some one iv never seen. it was like a spirit or a soul (i guess?)and it was what i wanted but i got scared and my eyes puples got huge and they werent in the begining and i got scared so i ran away. what dose this mean about me? what is up? please i need help please write me and talk to me . im 26 and have 2 kids i love them, and i havent had any really bad stuff happen to me except teenage crap. please asap. thanks.

Re: (Reply to: 28127 from ******)
From: Gunborg Palme
Date: Wed, 12 May 2004 03:30:11 +0200
Language: Swedish (o) , English (o)

Reply to all

Show History

Most women have bad days when they are feeling miserable. Often this occurs around that time of the month just before menstruation. Whatever the psychological condition, it gets worse around this time.

If this experience occurs again and becomes a problem for you, you should contact a psychiatrist. A psychiatrist can prescribe medicine to help you stay on the right side of reality. But we all take a trip to the psychotic side of our personality at night when we dream.





3.6 Forums

Here is the top of the window listing the latest entries in the public forum, an area where everyone can write contributions.



The user interface for reading forum messages is the same as that for reading ask-the-expert answers shown on page 14.



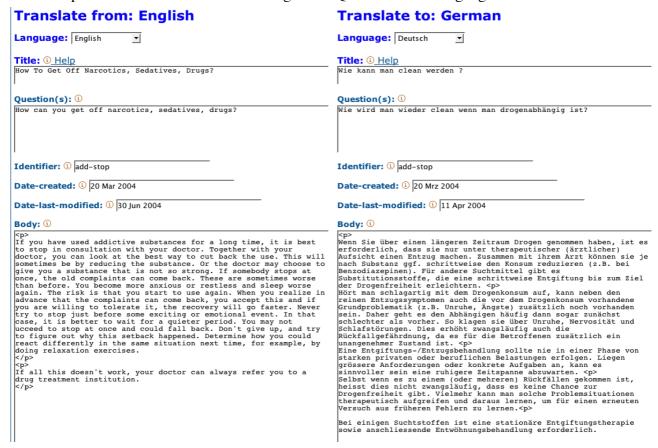
4 User interface for medical experts

The user interface for medical experts allows them to write, modify and translate answers. Each answers is described by a number of attributes built on the Dublin Core standard [3]. Below it is shown an example of a part of the interface where an expert inputs or modifies an FAQ:

Sedatives, Drugs?
Language: English
Title: 10 Help
How To Get Off Narcotics, Sedatives, Drugs?
Question(s): ①
How can you get off narcotics, sedatives, drugs?
Identifier: 1 add-stop
Date-created: 3 20 Mar 2004
Date-last-modified: 1 20 Mar 2004
Body: ①
If you have used addictive substances for a long time, it is best to stop in consultation with your doctor. Together with your doctor, you can look at the best way to cut back the use. This will sometimes be by reducing the substance. Or the doctor may choose to give you a substance that is not so strong. If somebody stops at once, the old complaints can come back. These are sometimes worse than before. You become more anxious or restless and sleep worse again. The risk is that you start to use again. When you realize in advance that the complaints can come back, you accept this and if you are willing to tolerate it, the recovery will go faster. Never try to stop just before some exciting or emotional event. In that case, it is better to wait for a quieter period. You may not ucceed to stop at once and could fall back. Don't give up, and try to figure out why this setback happened. Determine how you could react differently in the same situation next time, for example, by doing relaxation exercises. <pre> If all this doesn't work, your doctor can always refer you to a drug treatment institution.</pre>
Author: 1
<pre>Wendy Moelker, Psychologist in charge, tutor, Emergis center for mental health care, Goes, the Netherlands.</pre>

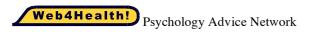


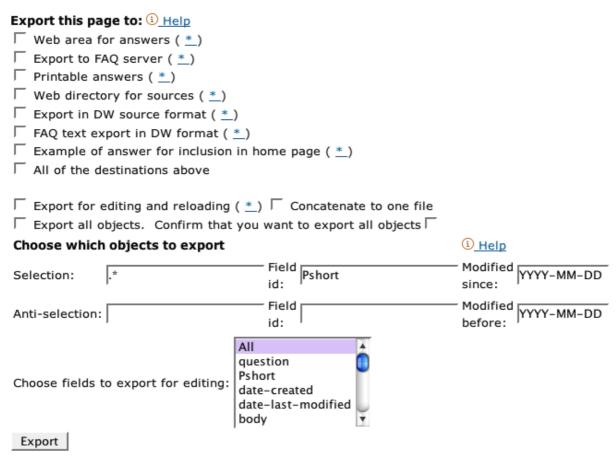
Below is part of the interface for translating an FAQ between two languages:



To help in the translation process, the Systran machine translation engine is used to propose a first draft translation, which can then be modified and extended by a human translator. (The German translation above, however, was made by a human.)

When an FAQ is ready, modified or translated, it can be exported to the areas where it is available to ordinary users. This export is controlled by templates, so that new templates can easily be added for export in new formats. Export is either done to a static file or by HTTP to a process receiving the information. HTTP is used to export FAQs from the forum system to the natural-language question-answering system (see the picture below).



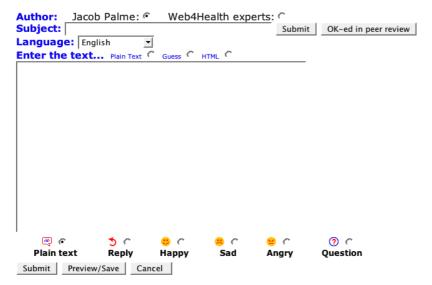


Experts can make internal notes or start a discussion about a certain FAQ, this discussion works like an ordinary forum, associated with the FAQ. Below is the page for writing a comment on an FAQ. These comments are only visible to the other experts.



information - Tiredness : How to deal with chronic tiredness

Write Message to Tiredness: How to deal with chronic tiredness





5 Work done on the software

The basic content management, ask the expert and other software used in this project were developed before project start, partially funded in other EU-projects. Here is a very short and incomplete overview of the major improvements made to the software during the current KOM2002 project (July 2002 to June 2004):

Facility for translation of FAQs.

Import of FAQs produced offline with Dreamweaver.

Export of content in various ways and formats controlled by export templates and with selection of what to export in various ways.

Table tool for listing all or a selection of FAQs in various formats.

Changed the unique ID of FAQs from number to text string.

Facility to lock an FAQ when one partner is working on it.

Time stamp of last change and by whom.

Comparison tool to see the differences between an older and a newer version of an FAQ.

Facility to combine aliases (children) and their main object (parent) in one export action.

Facility to manage stop list and substitutes (synonym) list jointly by all experts.

Improved error messages during export.

Ask-the-expert forums.

Headers in list of all FAQs produced by QuickAsk.

Language check, providing warnings if a text in a selected language seems to be in another language.

Improved news control.

Catch up-command to get all unseen items in one forum marked as seen.

Better organisation of news page.

Search function in forums.

Automatic recognition and conversion of dates in various formats. Dates automatically converted to the format common in the target language.

Addition of context-sensitive help in places where this was highly needed.

Addition of Alkaline free-text search engine on the advanced search page.

Area in the home page showing recent discussions and recent ask-the-expert answers.

Use of SSL for secure login and registration.



Logging, rating and statistics software: in particular a tool that follow visitors interaction with the system. The tool presents on a HTML table all the questions submitted by the user during a session, the answers retrieved by the system and the entries chosen.

Total anonymity for all users submitting questions in the ask-the-expert area.

Work flow support.

Better handling of the out-logging process of experts writing FAQs.

Unsubscription facility for all e-mail services provided by our groupware.

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6 References

- [1] Template-based natural-language question-answering, http://web4health.info/KOM2002/natural-language-answering.htm
- [2] How to answer ask-the-expert questions, September 2003, http://web4health.info/documentation/answering-ask-the-expert.pdf
- [3] Dublin Core Metadata Element Set, Version 1.1: Reference Description, ISO Standard 15836-2003, http://www.niso.org/international/SC4/n515.pdf, http://dublincore.org/documents/dces/
- [4] KOM2002 Groupware, Use in Web4Health, May 2003, http://web4health.info/documentation/KOM2002-groupware.pdf