

HCI Glossary

A Web-Based Glossary on Human Computer Interaction



User Manual

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0. Table of Contents

1. Graphical User Interface Overview	3
1. User Types and their Effect on the Graphical User Interface	5
1.1 User Registration.....	5
2. Browsing the Glossary	7
2.1 Pronunciation	8
2.2 Related terms.....	8
2.3 Comment.....	9
2.4 Definitions.....	10
2.5 Return to Top.....	10
3. Modifying the Glossary	11
3.1 Modifying Terms.....	12
3.1.1 Adding a Term	12
3.1.2 Using the “Edit Related Terms” region.....	13
3.1.3 Deleting a Term	14
3.2 Modifying Related Terms.....	14
3.3 Modifying Comment	14
3.4 Modifying Definitions	14
3.4.1 Adding a Definition.....	15
3.4.2 Editing a Definition	16
3.4.3 Deleting a Definition.....	16
4. User Administration	17
4.1 User Administration	17
4.2 Overview of Terms	19

1. Graphical User Interface Overview

The following image shows an overview of the **graphical user interface** (GUI) of the *HCI Glossary* and the elements of which it is comprised as it appears when the **main page** of the *HCI Glossary* site is loaded.



Figure 0.1: Main HCI Glossary GUI.

0. HCI Glossary banner
Can be clicked at any location / level within the *HCI Glossary* site to **return to the main page**.
1. Search box
Can be used to **search the HCI Glossary for available terms** (entries within the glossary). By using a phonetic search algorithm, terms matching the phonetic structure of what is being searched for will also be listed, although they might not represent an exact (character-by-character) match. This additional search method is used to account for common type errors, common misspellings and/or alternative spellings.
2. Login / logout box
Registered users and *HCI Glossary* administrators can use this box to **log in to or log out of the HCI Glossary**, giving them access to certain features like modifying,

deleting and/or adding terms or definitions of terms (available to registered users and administrators) or performing user administration tasks (available to administrators) which guest users (people browsing the *HCI Glossary* without being logged in) do not have access to. The “Register” option can be used by guest users in order to apply for a *HCI Glossary* membership as a registered user (registration is a closed process; administrators determine whether or not a guest user’s membership application will be granted).

3. Glossary navigation

Provides a way of **navigating through the glossary** by means of buttons (“0” to “9” and “A” to “Z”) which give access to the category containing terms starting with the chosen button character. After a category has been chosen, the button will be highlighted and the terms within that category will be listed as links below the button panel. In order to minimize page clutter and vertical scrolling, the list of terms will contain a paging mechanism directly below the button panel if the category contains more terms than the maximum number of terms that can be listed at once. If the category does not contain any terms, the “No entries found for currently selected category” will be shown below the button panel.

4. Technology listing

Lists the **software technologies of which the *HCI Glossary* makes use**: *Apache HTTP Server* is used as the web server, *PHP Hypertext Preprocessor* is used as the scripting language, *MySQL* is used as the database technology and *ScanSoft RealSpeak* is used as the voice synthesis technology for term pronunciation. The banner images can be clicked in order to open a new browser window that will take the user to the corresponding website.

5. Information panel

Gives **information and/or manipulation options that relate to the current location / level** of the *HCI Glossary* site; a word of welcome and a paragraph on how to get involved is presented when browsing the main page, information concerning a term (title, related terms, comment and definitions) is show when a term link is clicked from within the glossary navigation (3), search results are shown when the search box (1) has been used etc..

6. Information bar

Provides copyright and contact information.

The following chapters will give a more detailed description of the elements mentioned above and ways in which the user can interact with the system to perform certain tasks.

1. User Types and their Effect on the Graphical User Interface

There are **three types of HCI Glossary users**: a guest user, a registered user and an administrator. Their **privileges** are as follows:

Privilege / User type	Guest User	Registered User	Administrator
Browse glossary	✓	✓	✓
Modify glossary	✗	✓	✓
User administration	✗	✗	✓
Term overview	✗	✗	✓

Figure 1.1: Types of HCI Glossary users and their privileges.

As long as a user has not logged in or after he has logged out, he is considered a guest user and the guest user privileges will be in effect. If a user has got an account (either a registered user account or an administrator account) he can use the login / logout box to log himself in or out. Figure 1.2 shows the login / logout box while a user has not logged in (yet), figure 1.3 shows the login / logout box while a user is logged in.



Figure 1.2: Login / logout box while not logged in.

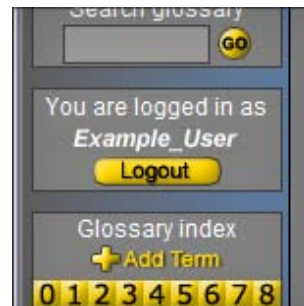


Figure 1.3: Login / logout box while logged in.

Depending on the current user type, **certain options** (links, buttons, information) **will be hidden** from view if the current user type does not permit the usage of these features or if they are of no importance to that particular user type (for instance, “Delete” and “Edit” links and/or buttons will not be shown to guest users while browsing (definitions of) terms, since they do not have permission to modify the glossary).

1.1 User Registration

If a user is browsing the *HCI Glossary* as a guest user, the **“Register” option** (link) will be available in the login / logout box. If the guest user clicks on this link, the information (**registration form**) shown in figure 1.4 will be presented in the information panel. After correctly completing and submitting the registration form, the information (**registration feedback**) shown in figure 1.5 will be presented in the information panel. After a couple of seconds, the user will automatically be redirected to the main page.



Figure 1.4: Applying for a membership through the registration form.



Figure 1.5: Feedback after correctly filling out the registration form and submitting it.

Chapter 2 will show how to browse the *HCI Glossary*, using a guest user as example. Chapter 3 will provide information on how to modify the *HCI Glossary* (chapter 3 will also state which on-screen options have become visible because of the fact that a registered user is now used as an example instead of a guest user). Finally, chapter 4 will explain how administrators can make use of the user administration features.

2. Browsing the Glossary

Starting from the main *HCI glossary* page (figure 0.1), we press the “A”-button in the glossary navigation button panel. It becomes highlighted and the terms within the “A”-category are shown below the button panel:



Figure 2.1: HCI Glossary terms within the “A”-category.

By clicking on the term “acceptance” (for instance), the following information will be shown in the information panel:

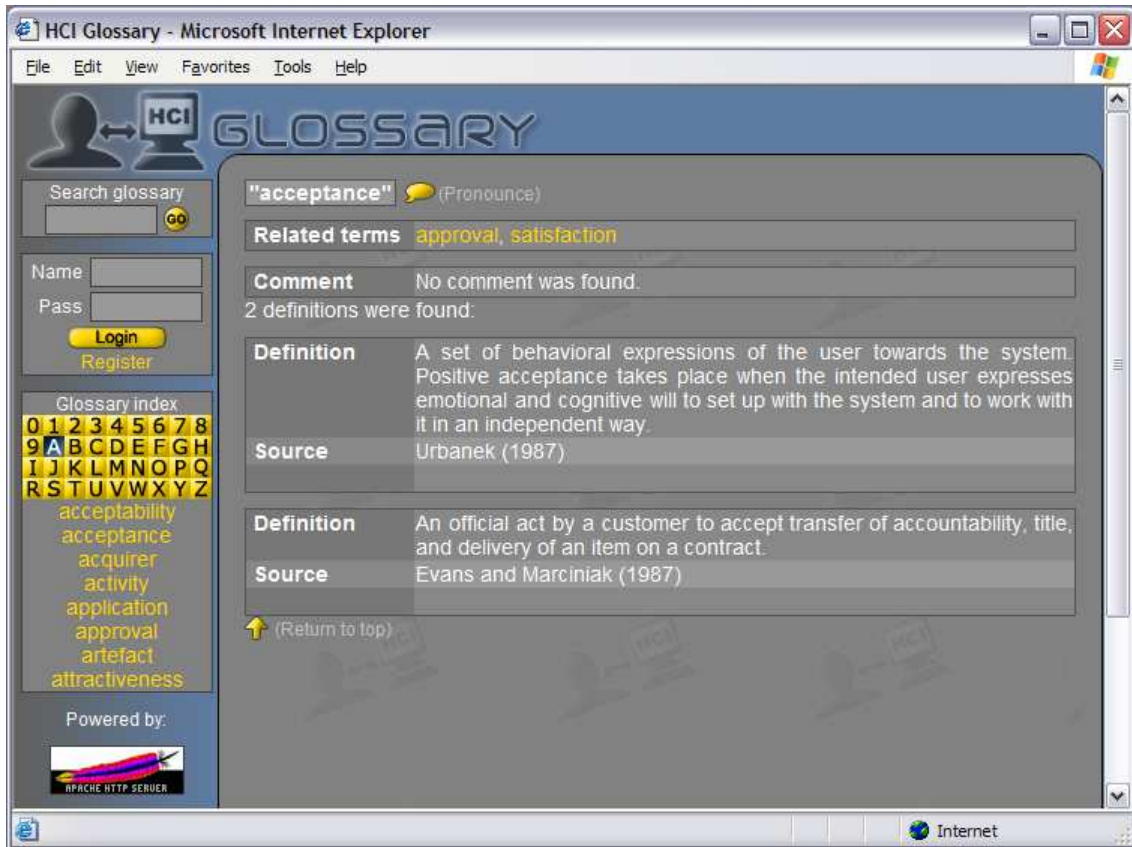


Figure 2.2: Information about the HCI Glossary term “acceptance”.

2.1 Pronunciation

The currently selected term is shown at the top, followed by a **speech bubble** icon and the word “Pronounce”. By clicking on the speech bubble, a connection will be made with *ScanSoft's RealSpeak* demonstration server (<http://www.scansoft.com/realspeak/demo/>) and a **.Wav-file** will be sent to the browser which contains a pronunciation (text-to-speech synthesis using *RealSpeak's* American English, 22 KHz, Female - Jennifer voice) of the term (“acceptance” in this case). Depending on how the browser is configured, the **.Wav-file** will be saved to disk or it will automatically be played back in the browser if an appropriate **plug-in** (*Apple QuickTime* (<http://www.apple.com/quicktime/download/>) or the built-in media player that comes with *Microsoft Internet Explorer 6.0* or higher (<http://www.microsoft.com/windows/ie/downloads/critical/ie6sp1/default.asp>)) is installed.

2.2 Related terms

Terms that relate to the currently shown term in some way are presented in the “**Related terms**” box. Clicking on one of these terms has the same effect as clicking on the corresponding term in the term list below the button panel in the glossary navigation. Please note that from an implementational point of view **related terms are not bidirectional**; if “Term A” has “Term B” as a related term, “Term B” does not necessarily have to have “Term A” as a related term (although this will normally be the case). An example is the term “activity”, which has “task analysis” as one of its related terms, while

“task analysis” does not have “activity” as one of its related terms; this might be due to the fact that “task analysis” is considered more important in the case of “activity” than “activity” in the case of “task analysis”:

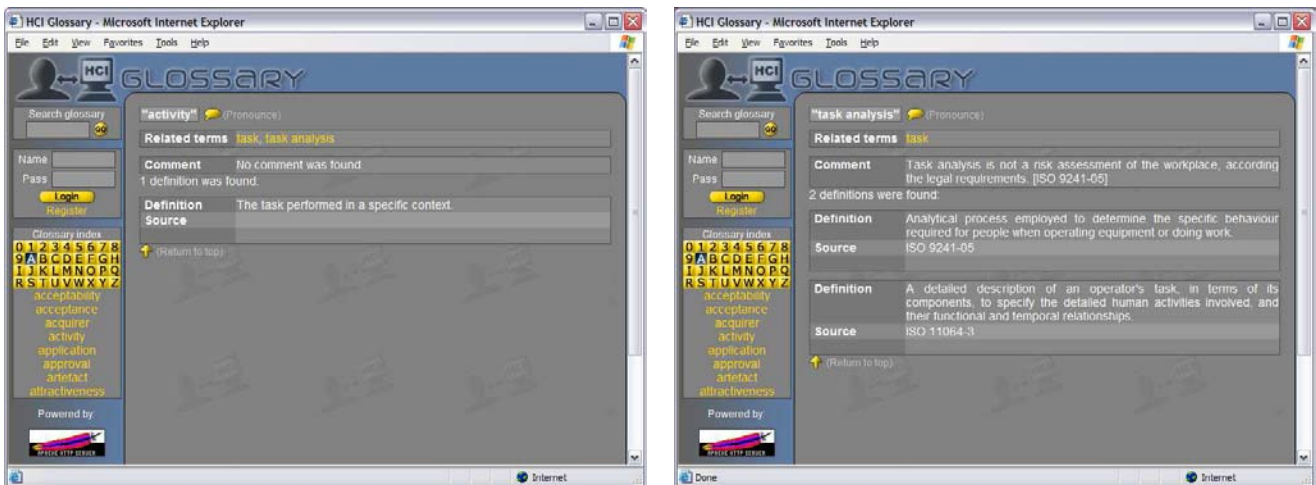


Figure 2.3: Non-bidirectionality of related terms.

2.3 Comment

A comment can be added to a term if desired. Please note that a comment is added to a term, not to a definition (effectively meaning that **a term can only have one comment**). At this point it is convenient to give a schematic overview of **how terms are stored** in the *HCI Glossary* database and what the **structure of a term** looks like:

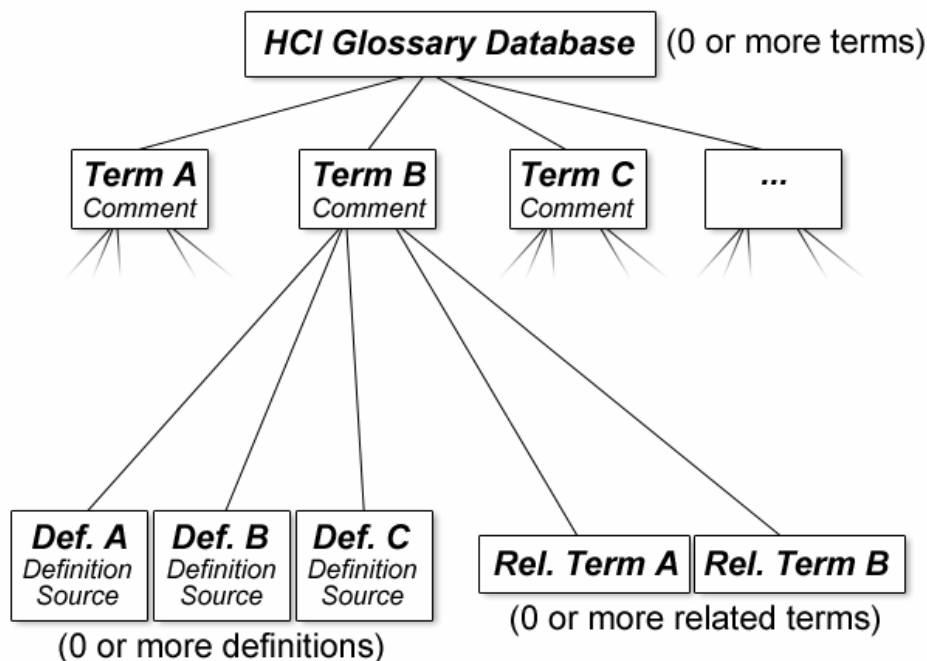


Figure 2.4: Schematic overview of the way in which terms are stored in the HCI Glossary database.

As can be seen, the database consists of one or more terms, each **term** may or may not have a **single comment**, each term may have **0 or more definitions** (terms without a

definition are also accepted; one or more definitions may be added later; it might be the case, for instance, that a user wants to add a term to the glossary because he thinks that it is an important term, but he has not got a decent definition yet. He can nevertheless add it and he (or another registered user) might add one or more appropriate definitions later on) and each term may have **0 or more related terms**.

2.4 Definitions

A “Definition” block consists of the **actual definition** and a **source**. As stated previously, a term may have zero or more definitions.

2.5 Return to Top

This link can be used to **jump back to the top of the document** (this may be convenient to minimize vertical page scrolling if a lot of definitions are added to a certain term).

3. Modifying the Glossary

When a user is logged in (either as a registered user or an administrator), he is authorized to and capable of **modifying the *HCI Glossary* database**. This chapter will explain glossary modification using a **registered user** (not an administrator) as example.

After using the login / logout box from the main *HCI Glossary* page to log in as a registered user by using the appropriate combination of user name and password, the following screen is shown:



Figure 3.1: Graphical user interface after logging in as a registered user (“gewoon”) from the main page.

We now perform the same browsing steps as given at the start of chapter 2 (selecting the “A”-category and subsequently selecting the “acceptance” term). The following will now be shown in the browser:

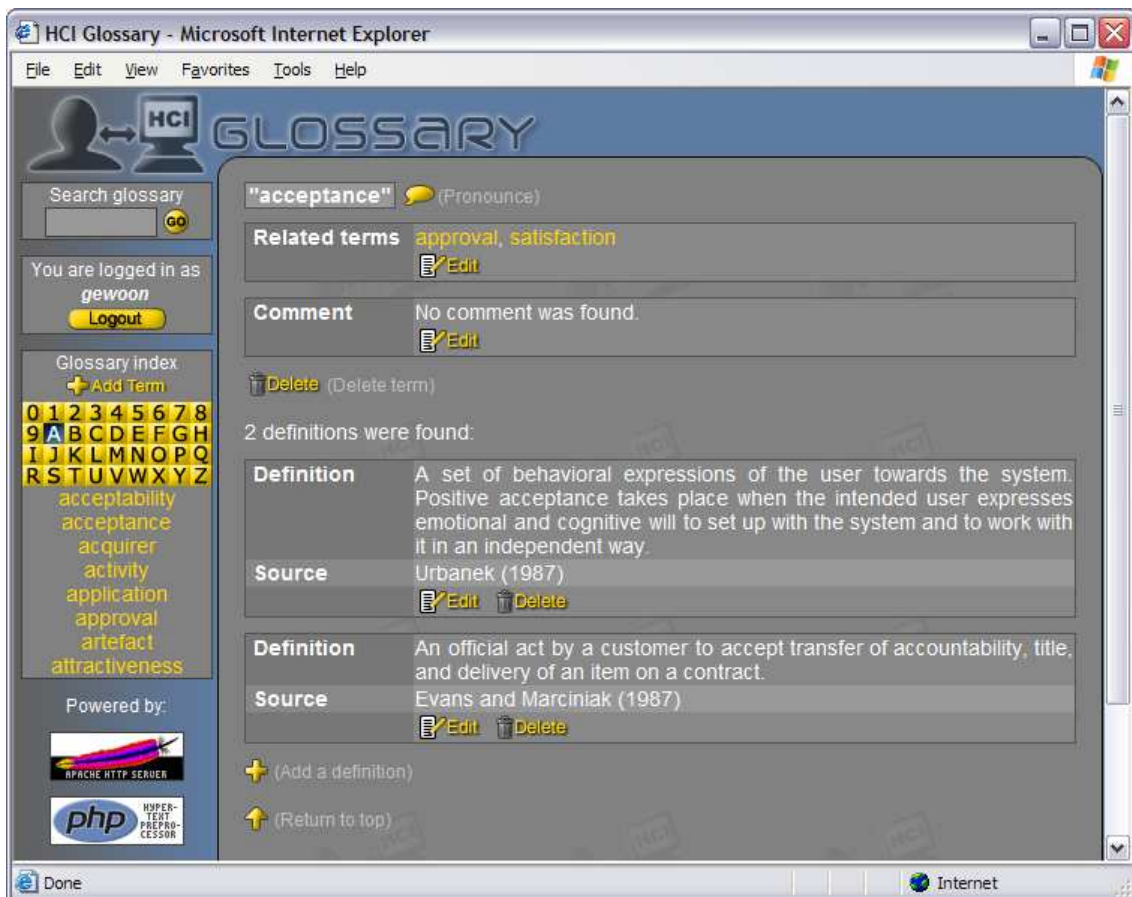


Figure 3.2: Viewing the information about the term “acceptance” as a registered user.

We can now see a couple of new image links in comparison to figure 2.2. The “Related terms” box, the “Comment” box and each of the “Definition” boxes have got an “**Edit**” image link now which can be used to edit the information inside the box to which the “Edit” image link belongs. Apart from that, we can also see the addition of a “**Delete**” image link just below the “Comment” box and inside each of the “Definition” boxes. Finally, an “**Add a definition**” image link (plus sign) is added just below the last “Definition” box. Another change can be observed inside the navigation panel (directly above the button panel): an image link called “**Add Term**” has become available.

3.1 Modifying Terms

3.1.1 Adding a Term

If a user wants to **add a new term** to the *HCI Glossary* database, he should click the “**Add Term**” image link inside the navigation panel; he does not have to select the correct category from which the new term can be retrieved later on prior to clicking on the “Add Term” image link: putting terms inside categories is done automatically by the system (for instance, if one wants to add the term “computer” to the glossary and he is currently browsing the “A”-category as show in figure 3.2, he can nevertheless click directly on the “Add Term” image link without having to switch to the “C”-category before clicking on the “Add Term” image link). The following screen is presented to the user after clicking on the “Add Term” image link:

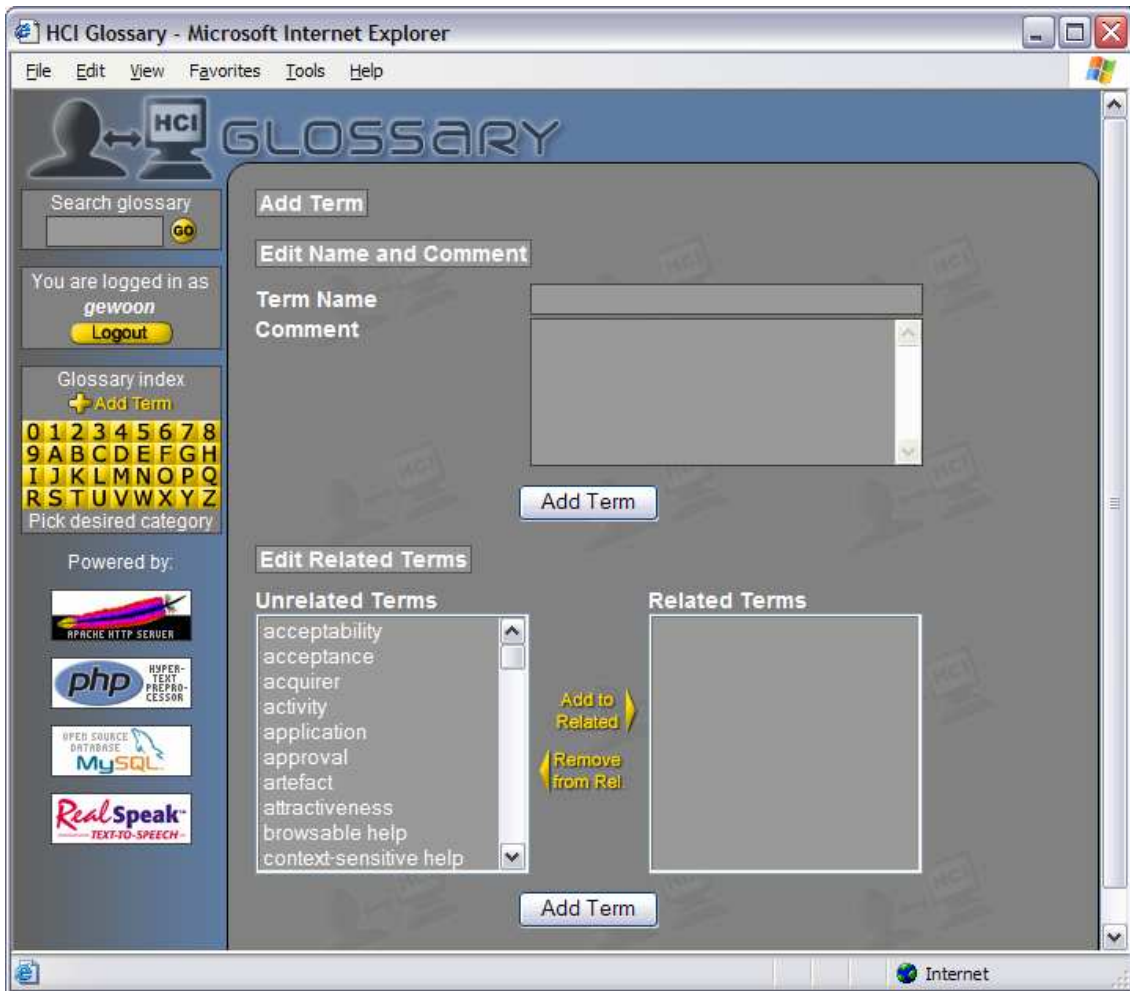


Figure 3.3: Graphical user interface after clicking on the “Add Term” image link.

The process is fairly straightforward: the user enters the desired **term name** inside the “Term Name” box, an **optional comment** inside the “Comment” box and he can select **0 or more related terms** by using the region below the “Edit Related Terms” box (this will be clarified in the following subparagraph). If the user is satisfied with the entered information, he can press the “**Add Term**” button at the bottom of the page to add the term to the *HCI Glossary* database. After pressing the “Add Term” button, the browser will give feedback to the user about the fact that a new term has been added and the user will automatically be forwarded to the page containing the newly added term within a couple of seconds.

3.1.2 Using the “Edit Related Terms” region

A user can add related terms by clicking on them in the “**Unrelated Terms**” window (the left window) and subsequently pressing the “**Add to related**” image link to add the selected term to the “**Related Terms**” window (the right window). Upon doing this, the term will automatically be deleted from the “Unrelated Terms” window in order to prevent the user from adding the same term to the “Related Terms” window more than once. Removing a term from the “Related Terms” window is done in an analogue fashion (with the exception that the “**Remove from Rel.**” image link should now be used). In order to

facilitate selection, the standard selection conventions hold: a user can use the **“Shift” key** while selecting to range select a continuous range of terms inside one of the windows and he can use the **“Control” key** to add individual terms to the selection. Please note that adding and deleting terms to and from the windows is done in a **non-sorted way**. If, for instance, the term “acceptance” was added to the “Related Terms” list but shortly thereafter the user decided that this term shouldn’t be part of the related terms, he can select it, click on the “Remove from Rel.” image link and “acceptance” will then reappear at the **bottom** of the “Unrelated Terms” window.

3.1.3 Deleting a Term

Deleting a term is also fairly straightforward: select the appropriate category from the navigation panel, subsequently select the term from the shown term list and press the **“Delete term” image link** directly below the “Comment” box (figure 3.2). The system will present the user with a **confirmation prompt** (“Are you sure you want to delete the term ‘xxx’?”). In case the answer is “No”, the user will automatically be returned to the page containing the information about the current term. If the user confirms the deletion by answering “Yes”, he will receive feedback concerning the deletion and he will automatically be redirected to the main page within a couple of seconds.

A thing to note is the fact that if “Term A” has “Term B” in its list of **related terms** and if “Term B” is deleted from the glossary, “Term B” will also **automatically be deleted** from the related terms list of “Term A” (and any other term that has “Term B” as a related term). To prevent the related terms list of “Term A” (and any other term that has “Term B” as a related term) from linking to a non-existent term.

3.2 Modifying Related Terms

Modification of related terms is done by using the **same page as adding a new term** (figure 3.3), with the exceptions that the **information** contained in the “Term Name” box, the “Comment” box, the “Related Terms” window and the “Unrelated Terms” window are automatically **preconfigured** to reflect the stored settings regarding the term of which the related terms are currently being modified and that the “Add Term” button now reads “Submit Changes”.

3.3 Modifying Comment

Modification of a comment is done by using the **same page as adding a new term** (figure 3.3), with the exceptions that the **information** contained in the “Term Name” box, the “Comment” box, the “Related Terms” window and the “Unrelated Terms” window are automatically **preconfigured** to reflect the stored settings regarding the term of which the comment is currently being modified and that the “Add Term” button now reads “Submit Changes”.

3.4 Modifying Definitions

3.4.1 Adding a Definition

If a term is newly added, it does not contain any definitions yet. In order to **add a definition** to a newly added term, a previously added term that has not got any definitions yet or a previously added term that already has one or more definitions but that needs an additional definition, the user can use the **“Add a definition” image link** (figure 3.2) to add a definition to the current term. If the “Add a definition” image link is clicked, the user is shown the following screen:

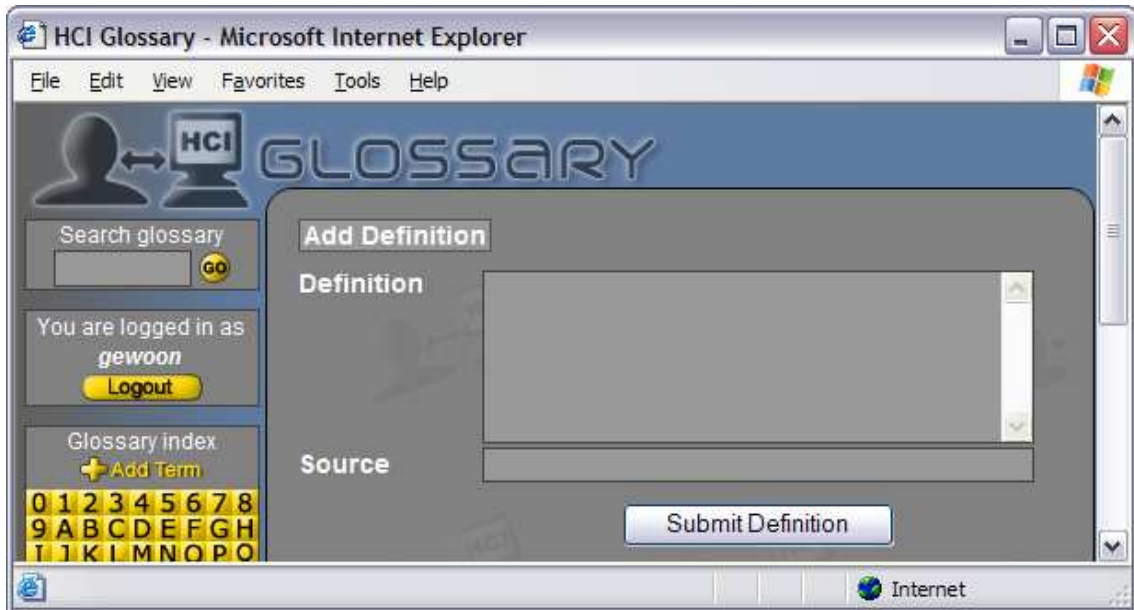


Figure 3.4: Adding a definition to a term.

The definition and its optional source can now be added to the term by entering them in the “Definition” box and the “Source” box, respectively, after which the user may click on the “Submit Definition” button. The user will automatically be redirected to the page containing the information about the current term where the newly added definition should now be visible (figure 3.5).

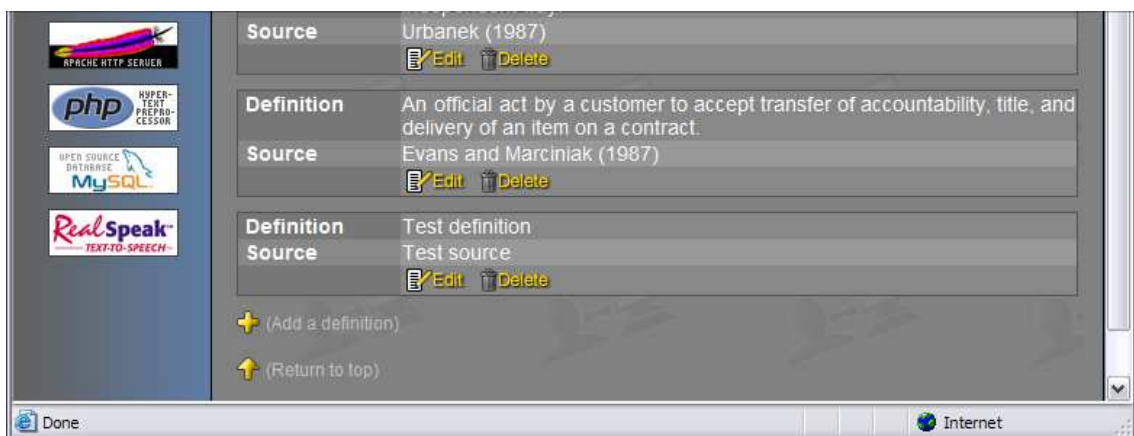


Figure 3.5: New definition (“Test definition”) added to term “acceptance”; compare to figure 3.2.

3.4.2 Editing a Definition

Modification of definitions is done by using the **same page as adding a new definition** (figure 3.4), with the exceptions that the **information** contained in the “Definition” box and the “Source” box are automatically **preconfigured** to reflect the stored settings regarding the definition that is currently being modified and that the “Submit Definition” button now reads “Submit Changes”.

3.4.3 Deleting a Definition

Deleting a definition is done as follows: press the “**Delete definition**” **image link** inside the relevant “Definition” box (figure 3.5). The system will present the user with a **confirmation prompt** (“Are you sure you want to delete this definition?”). In case the answer is “No”, the user will automatically be returned to the page containing the information about the current term without the relevant definition being deleted. If the user confirms the deletion by answering “Yes”, he will receive feedback concerning the deletion and he will automatically be redirected to the page containing the information about the current term with the relevant definition deleted within a couple of seconds.

4. User Administration

User administration functionality is only available to administrators. We will therefore use an administrator as example user.

After logging in as an administrator, the main *HCI Glossary* page will look like this:

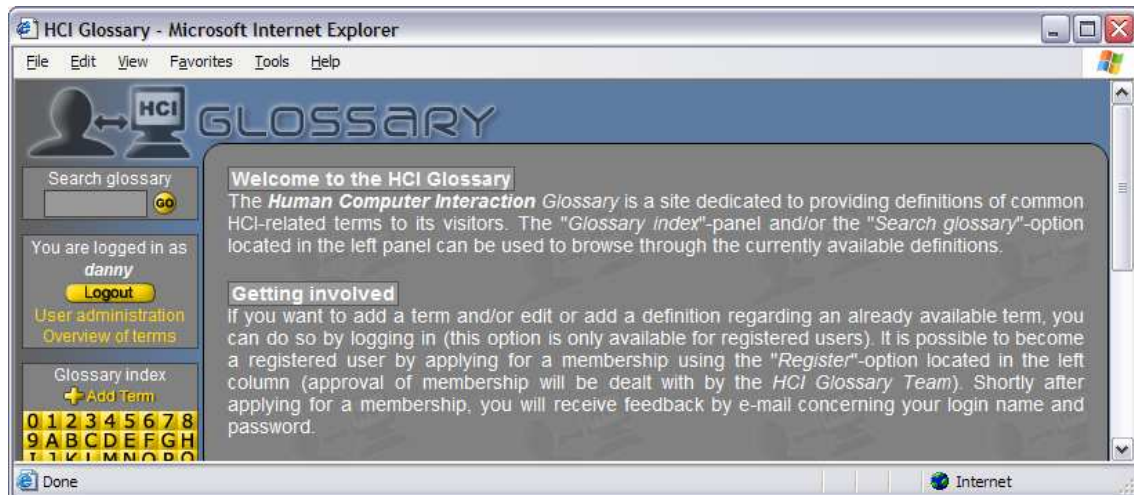


Figure 4.1: Main HCI Glossary page after logging in as an administrator.

Two new options are available from within the login / logout box: **“User administration”** and **“Overview of terms”**. The first option enables the administrator to **approve or disapprove pending user registration applications** (guest users who have applied for a membership will be given the status “Disapproved” until they are approved (in case a membership application is going to be granted) or removed from the list of (potential) users (in case a membership application is not going to be granted)). The “User administration” option can also be used to **remove existing users** from the system, **modify their information** or **change their user type** (either “user” (registered user) or “administrator”).

The second option, “Overview of terms”, give an administrator the possibility of **listing all of the terms** (including their definitions) within the *HCI Glossary* database **on a single, large page** in order to get a quick (“flat”) overview of the contents of the database.

4.1 User Administration

After clicking on the **“User administration”** link in the login / logout box, the administrator is presented with an overview as depicted in the following figure:

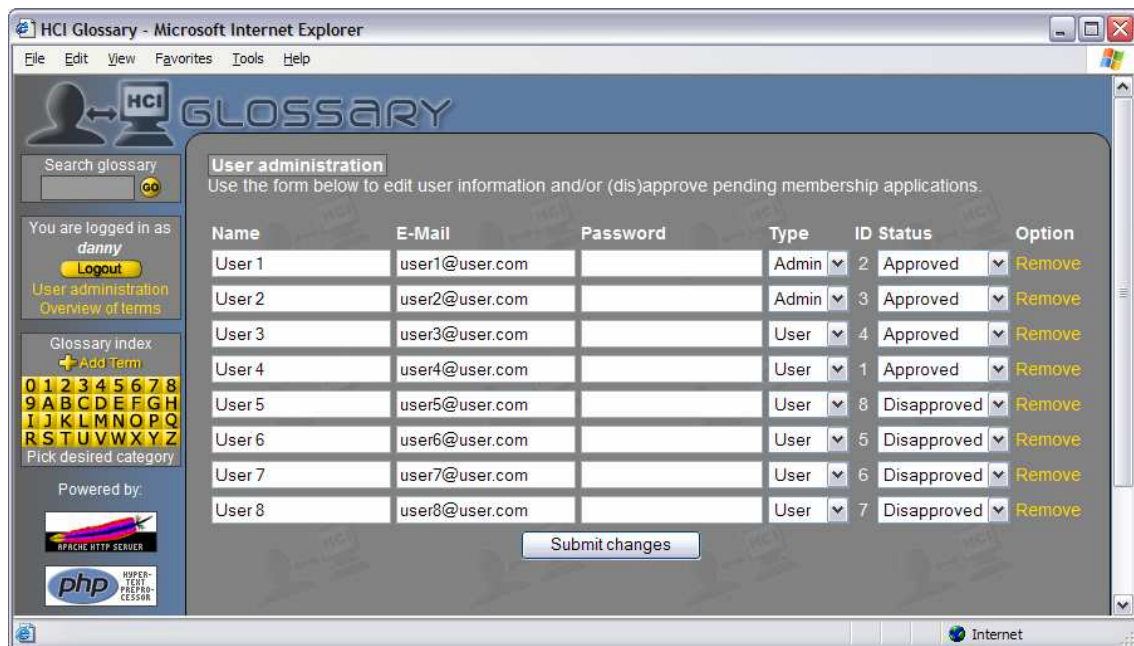


Figure 4.2: HCI Glossary's user administration screen.

In the above figure we can see four actual users and four pending users / users whose account has been discontinued. We can also see that two of the four actual users are administrators while the other two are normal (registered) users.

Information can be changed by simply entering it into the corresponding box and clicking the “**Submit Changes**” button. Please note that **each administrator has the same rights**, meaning that if one administrator sets a user's pending application to “Approved”, another administrator (assuming there is more than one administrator) might disagree and reset the pending user's status to “Disapproved”; it is up to the administrators to reach consensus about these issues.

Registered users do not have the option of **changing** their **password**; if they want their password to be changed, they must contact one of the administrators by e-mail and one of them will then change the user's password using the user administration screen. Passwords can be changed by an administrator but not looked up using the user administration (for security reasons); if a user loses his passwords, he will have to notify an administrator who will then give the user a new (user-chosen) password.

However, if a user enters an **incorrect password** when trying to log on, he will be prompted by the system whether or not he **forgot his password**. If this is the case, he can opt for the automatic generation of a **random password** which will automatically be sent to the e-mail address corresponding to his login name (if there is a registered user or administrator record available for that login name).

If a guest user applies for a membership, an **e-mail** will be sent to each of the administrators notifying them of a new membership application. One of them can then check the user administration in order to grant / deny membership. The user will **be notified by e-mail by one of the administrators** about changes concerning his membership application.

4.2 Overview of Terms

As stated before, the “**Overview of terms**” option simply lists all of the available terms and their definitions on one long (“flat”) page, as can be seen in the following figure:



Figure 4.3: Overview of all of the terms and their definitions currently in the database.