

# Evaluation of WYSIWYG Extensions for Mediawiki

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**Projektpraktikum aus Projekt- und Qualitätsmanagement**

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# 1. Wikis and Mediawiki

Basically a Wiki is a kind of Content Management System with the focus on user collaboration. Although there exist also CMS who allow users to participate (for example with comments and posts in forums) Traditional Content Management Systems are normally used to provide some kind of information to a target audience for reading only. From this it follows that in those CMS there are normally 2 kinds of users: the users who provide the content and those who read it.

Unlike traditional CMS Wikis are especially designed to allow all users to contribute to the wiki by editing articles and creating new ones. Hence Wikis are often used for Group Collaboration and Knowledge Management tasks. Because of this the amount and the quality of information contributed by users/visitors are the crucial factors for a wiki to be successful.

Most likely because of the huge success of the Wikipedia, which is based on Mediawiki, Wikis have become very popular in the recent years.

## 2. Motivation

### 2.1. MediaWiki Markup

The Mediawiki markup is a syntax system for formatting articles and embedding objects (for example images) other than plain text. For example if you want to create a link to another article in (the same) wiki with Mediawiki markup just write the article name in double squared brackets: `[[article name]]`.

Although the Mediawiki markup is far less extensive than HTML some inexperienced users may have problems with the syntax. Furthermore even experienced users who are familiar with the syntax may sometimes wish more user-friendly ways for editing an article.

### 2.2. More Userfriendly Approaches

Because of these issues Mediawiki comes already with an edit bar which covers some basic formatting options like bold, italic, links and so on. The popular Wikipedia which is based on Mediawiki uses extra edit buttons which offer additional features.

But there are still lots of important formatting options that are not supported by this makeshifts. Therefore many people have created varying extensions of to compensate some of these functions. The most advanced extensions are WYSIWYG editors. These extensions are not just simple buttons which create markup; they completely replace it and offer totally new possibilities. The user can edit a wiki article with the browser like a text in a text editor. In this case the markup is completely hidden from the user.

### **3. Objectives and Structure**

The first objective of this paper is to research current available WYSIWYG solutions for Mediawiki. The result of this research can be found in the following chapter.

Afterwards evaluation criteria are defined (chapter 5) and in afterwards the individual extensions are examined by means of these evaluation criteria (chapter 6).

Chapter 7 gives a short summary for each extension.

### **4. WYSIWYG Editors**

#### **4.1. FCKeditor**

FCKeditor is a WYSIWYG HTML Editor that can be integrated in any Web Page. FCKeditor was originally created by Frederico Caldeira Knabben and is often integrated in CMS for easy generation of html code.

There are different ways to integrate FCKeditor into Mediawiki. The solution used for this evaluation is an own project called MediaWiki+FCKeditor. The most recent version at the time being is 2.5.

#### **4.2. Wikiwyg**

Wikiwyg is a WYSIWYG browser editor framework for wikis. Apart from Mediawiki Wikiwyg supports Socialtext, Kwiki, Trac and TWiki and others. Wikiwyg is a Javascript library which

Wikiwyg offers four different ways to edit/view a piece of content:

- Wysiwig mode: HTML based design editing
- Wikitext mode: standard text area editing
- HTML mode: view/edit raw HTML
- Preview mode: display without prior saving

The most recent version for the time being is 0.20.

### 4.3. TinyMCE

“TinyMCE is a platform independent web based Javascript HTML WYSIWYG editor control released as Open Source under LGPL by Moxiecode Systems AB.”<sup>1</sup> Because TinyMCE is 100% Javascript it can be easily integrated into any Website.

Unlike FCKEditor (for Mediawiki) TinyMCE has not been specially designed for Wikis. TinyMCE doesn't translate the WYSIWYG actions into wiki markup. Instead it creates HTML code. This means that from the point of the integration into the wiki all articles are saved as HTML.

Joseph P. Socoloski III wrote an extension which integrates TinyMCE into Mediawiki<sup>2</sup>. TinyMCE combined with this extension allows WYSIWYG editing of wiki articles without any modifications to mediawiki source files.

At this time the latest versions are 2.1.3 of TinyMCE and 0.5.4 of the extension.

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<sup>1</sup> <http://tinymce.moxiecode.com>

<sup>2</sup> [http://www.mediawiki.org/wiki/Extension:TinyMCE\\_MW](http://www.mediawiki.org/wiki/Extension:TinyMCE_MW)

## 5. Evaluation Criteria

### 5.1. Installation and Distribution

This criterion offers a description of the steps necessary to integrate the extension into an existing Mediawiki installation.

Is the solution a “pure” extension or are there modifications to Mediawiki source files necessary? If it is not a pure extension are there client side installation steps necessary?

### 5.2. MediaWiki Compatibility

Designate if there are specific requirements concerning the version of the Mediawiki. If there are no specific restrictions the plugin is tested with 1.10.1 and the latest version 1.11.

### 5.3. Usability

The Usability criterion gives a short description of the look and feel of the extension and the ui components.

Additionally the creation of tables and the insertion of images are being reviewed in detail. They have been chosen because they are used frequently and are relatively inconveniently handled with the traditional markup.

### 5.4. Support

Determine if the extension is still under development how often it is updated. This is especially necessary as new features may carry new bugs and security holes. For a web application as wiki it is crucial that such vulnerability are patched as fast as possible.

This aspect also includes some notes about the community around the extensions and how active the community is.

### 5.5. Key Feature Comparison

At the end of the evaluation chapter a table compares the key features of the three extensions.

- Browser Compatibility
- Support for Bold/Italic/Underline
- Assessment of Table Creation
- Assessment of Image Insertion
- Assessment of the Possibility to edit existing Tables and Images
- Support for Anchors/Links/References
- Support for Bulleted Lists/Numbered Lists
- Possibility to Undo/Redo Actions

## 6. Installation and Evaluation

### 6.1. FCKeditor

#### 6.1.1. Installation

The FCKeditor extensions can be downloaded as an archive which has to be unpacked into the extensions directory of the Mediawiki installation.

Additionally there are some modifications of Mediawiki source files (besides of LocalSettings.php) necessary for the extension to work properly:

- includes/EditPage.php
- includes/Parser.php
- includes/SpecialPreferences.php (optional).

The changes are described on the project site in detail.<sup>3</sup> After these steps the extension is fully working.

#### 6.1.2. MediaWiki Compatibility

FCKEditor extension worked fine with mediawiki 1.10.1 and the latest version 1.11.

#### 6.1.3. Usability

After the installation steps the wiki toolbar is completely replaced by the FCKEditor Toolbar.



Image 1: FCKEditor Toolbar

The button to the left changes the view from WYSIWG mode to wikitext mode which shows the wiki markup. The other buttons allow to insert and/or edit wiki objects. Because FCKEditor uses common Icons used in most text editors or word processing programs it is relatively easy to figure out what they do.

The buttons {T} and {R} allow to insert/add Templates and References. FCKEditor only allows pasting of plain text any text formations from Microsoft Word are lost.

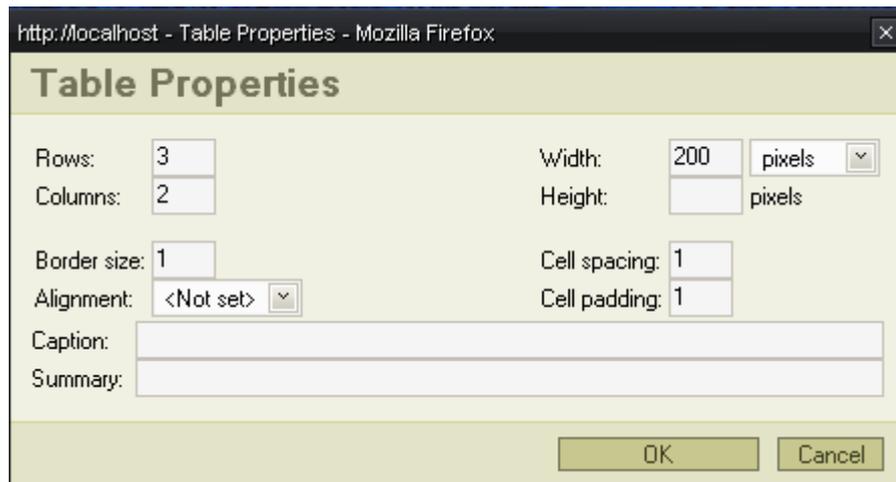
#### Tables

Image 2 shows the dialog box for inserting tables. After entering the values and confirming the options the empty table is inserted.

This window can be shown again by right clicking the table and choosing "Table Properties", all values can be changed afterwards except the structure of the table (cells/rows) itself.

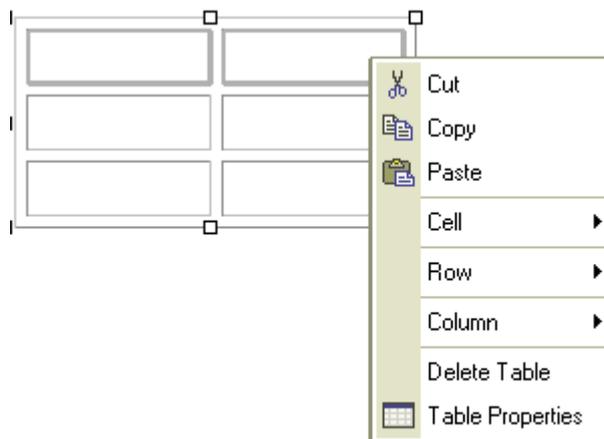
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<sup>3</sup> [http://mediawiki.fckeditor.net/index.php/FCKeditor\\_integration\\_guide](http://mediawiki.fckeditor.net/index.php/FCKeditor_integration_guide)



**Image 2: FCKEditor Table Properties**

Editing tables with FCKEditor is very easy. Everyone who ever has used a word processor like Microsoft Word will figure out what you can do and how it works.



**Image 3: Editing Tables with FCKEditor**

FCKEditor supports:

- cutting/copying/pasting of text
- selecting individual cells/rows/columns
- inserting/deleting/merging cells
- inserting/deleting rows

Tables can be resized by using drag and drop. This works only for the whole table, not for individual cells or rows. While using this feature and holding down the mouse button FCKEditor shows the actual size and change from the original size.

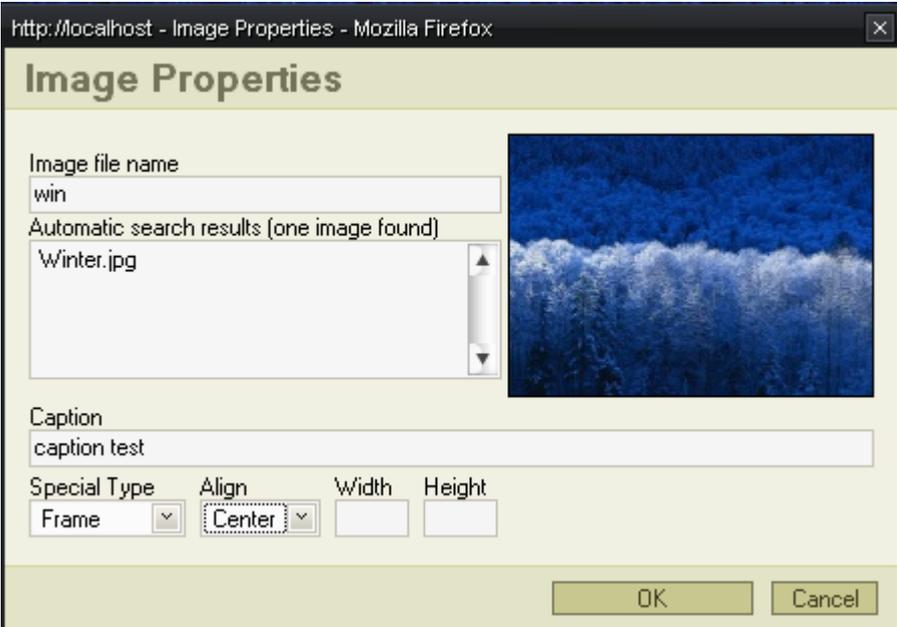
Copy & Paste is only possible for each individual cell which means transferring text from multiple cells from a table out of another program to multiple cells in the wiki article table is not possible (in one step).

**Images**

Inserting Images with FCKEditor can be done very conveniently. After pressing the image icon a window pops up (only works with deactivated pop up blocker). In this window you can search the database of the wiki for images by entering a part of the image name in the uppermost text field. If any filenames match the pattern they are shown in the select box below. This function comes in very handy because you do not need to know the full name of the image file and you do not have to go to the special page and look it up. FCKEditor even shows a preview of the selected image which is very useful too.

Directly uploading a file is not supported by the FCKEditor and inserting an image from the clipboard is obviously not possible as well.

The other objects allow to choose between the image type (frame/bordered/thumb/none) the alignment (left/right/center) and to define height and width restrictions. Frame and Center are preselected which is a bit odd because they do not represent the wiki “standard options”. By pressing OK the image is inserted into the article.



**Image 4: Editing/Inserting Images with FCKEditor**

Editing an image works exactly in the way as one would expect. You just click on the image and press the icon button again. Even more convenient is to right click it and choose “Image Properties” from the context menu.

Images can be moved easily by drag and drop within the wiki article.

### **Support**

The project site <sup>4</sup>is a wiki installation which gives the visitor a good overview about the project and what can be done with FCKEditor. The developers mainly focus on the development of the editor itself and not on the wiki extension. Nevertheless the official site <sup>5</sup>for the FCKEditor offers lots of information and has a well-frequented forum where one can get help.

The FCKEditor can be updated separately from the extension if a new version is published.

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<sup>4</sup> <http://mediawiki.fckeditor.net>

<sup>5</sup> [www.fckeditor.net/](http://www.fckeditor.net/)

## 6.2. Wikiwyg

### 6.2.1. Installation

The files can be downloaded from the svn directory or as archive. <sup>6</sup>

After unpacking all files have to be copied to the extensions subdirectory of the wiki installation.

There are some changes to mediawiki files necessary for Wikiwyg to work properly. The Project provides a patch file for this. The patch files modifies skins/common/wikibits.js, includes/Parser.php and languages/Language.php.

Furthermore the provided patch file only works for a specific version of MediaWiki (1.7 alpha).

An additional patch file is needed to fix syntax errors. Unfortunately the mediawiki extension article is not up to date so the installation instructions do not work (anymore). "The instructions here are incomplete and do not work."<sup>7</sup>

Because of these issues I was not able to make a selfinstall of wikiwyg. All the tests had to be done with the demo.<sup>8</sup>

### 6.2.2. MediaWiki Compatibility

Because I was not able to do a self installation I cannot verify any compatibility information. As mentioned in 5.2.1 Wikiwyg currently offers only a patch file for MediaWiki 1.7 alpha.

### 6.2.3. Usability

The Wikiwyg toolbar can be seen in Image 5.



Image 5: Wikiwyg Toolbar

The toolbar is smaller and less fancy than the others. It also has less icons and obviously less features than the other extensions.

### Tables

Tables are created by pressing the corresponding icon in the toolbar. Wikiwyg doesn't allow specifying any details (for example the amount of columns and rows). By pressing the icon Wikiwyg automatically inserts a 3x3 Table with 'A' 'B' 'C' in the first row.

<sup>6</sup> <http://www.mediawiki.org/wiki/Extension:Wikiwyg>

<sup>7</sup> [http://www.mediawiki.org/wiki/Extension:Wikiwyg#Wikiwyg\\_on\\_MediaWiki](http://www.mediawiki.org/wiki/Extension:Wikiwyg#Wikiwyg_on_MediaWiki)

<sup>8</sup> <http://demo.wikiwyg.net/wikiwyg/demo/clientserver/>

The inserted table has now visible borders which is not very user friendly because new users may not even recognize that it is a table. The borders are only visible when the table has been left clicked (see Image 6).



**Image 6: Wikiwyg Tables**

The table can be resized and a info box shows the actual size and the delta to original values. Cells can be deleted or created by using the mini buttons. This solution is much less convenient compared to the other extensions. Cells cannot be merged. Additionally a table cannot be moved by drag and drop and even graver I was not able to delete the whole table at all except by deleting each single cell.

**Images**

Wikiwyg does not support Images at all.

**Support**

The project site is not in a good shape. It seems that there is no real support and that there is not much development going on there (at least for mediawiki integration).

## 6.3. TinyMCE

### 6.3.1. Installation

Integration of TinyMCE is very easy. Just download the latest version of TinyMCE of the developers' website <sup>9</sup> and unpack it into the extensions folder of the mediawiki installation. Then create a TinyMCE\_MW.php in the extensions folder. The content for this file can be found on the mediawiki extensions site. <sup>10</sup>

Finally the following text has to be copied to the LocalSettings.php:

```
##### TinyMCE_MW.php: Easily implement Moxiecode's TinyMCE into MediaWiki
$wgUseTinyMCE = true; #Init needed for clicking on a new article link
$wgDefaultUserOptions ['showtoolbar'] = 0; #new users get this default or
modify DefaultSetting.php
$wgTinyMCETheme = "msword"; # "simple", "advanced", "msword", else none
$wgMyWikiURL = "http://$wgDBserver/$wgScriptPath/index.php/";
$wgExt_valid_elements =
"data[table|template],repeat[table|sort],categorytree[mode|depth],inputbox[
type|bgcolor|width|default|preload|editintro|buttonlabel|searchbuttonlabel|
break], big";
require_once("$IP/extensions/TinyMCE_MW.php");
```

The explanation of the parameters can be found at the project site too. TinyMCE requires no changes to mediawiki files.

### 6.3.2. MediaWiki Compatibility

TinyMCE extension works fine with mediawiki 1.10.1 and the latest version 1.11.

### 6.3.3. Usability

After the successful installation the TinyMCE toolbar is shown when editing an article.



Image 7: TinyMCE Toolbar

The Icons and what they do should be relatively familiar for anyone who already has used a word processing tool before. The TinyMCE toolbar reminds even more to MS Office toolbars than the one from FCKEditor. It even has buttons for “New Document” “Print” and “Save”.

TinyMCE allows to copy&paste formatted text from Word. This works for bold, italic, underline, strike, colors and alignment but not for lists.

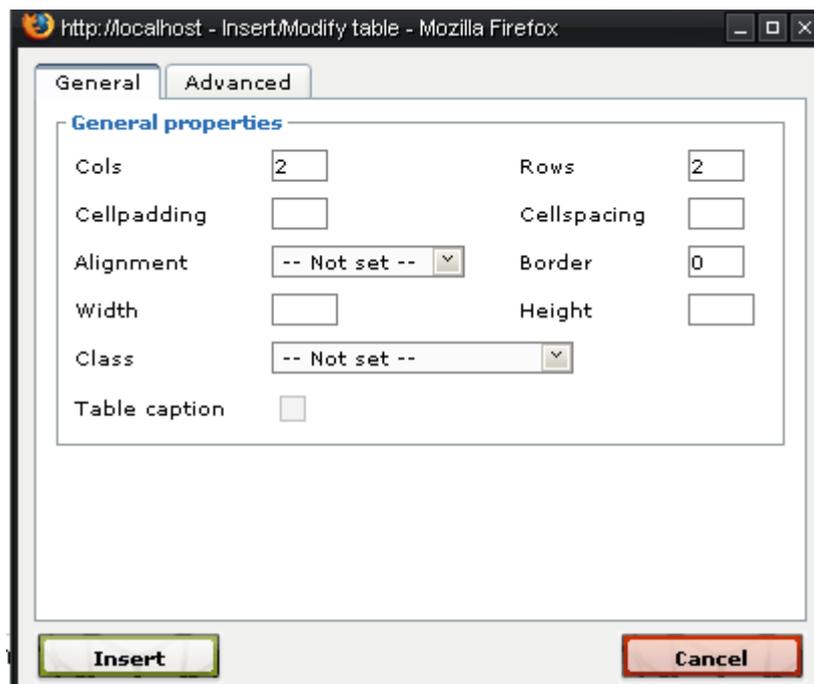
<sup>9</sup> <http://tinymce.moxiecode.com/download.php>

<sup>10</sup> [http://www.mediawiki.org/wiki/Extension\\_talk:TinyMCE\\_MW](http://www.mediawiki.org/wiki/Extension_talk:TinyMCE_MW)

Because TinyMCE creates HTML code it has more options than the other WYSIWYG editors. It is possible to use different fonts and the font size can be specified exactly. Text and Backgrounds can be coloured and it is even possible to embed objects like flash.

## Tables

TinyMCE provides support for inserting tables. The corresponding window is shown in Image 6. The dialogue offers all necessary options. The advanced tab allows further options like background color, border color and much more. There is even a color picker integrated.



**Image 8: FCKEditor Table Properties**

Newly created tables have very small cells which is very inconvenient.

Editing Tables with TinyMCE works nearly exactly as with FCKEditor. Cells, Rows and Columns can be selected individually and inserted, deleted or merged by right clicking via the context menu or with the buttons in the main toolbar.

The table can be resized and a info box shows the actual size and the delta to original values. The only difference to the FCKEditor is that tables cannot be moved by drag and drop or cut and paste.

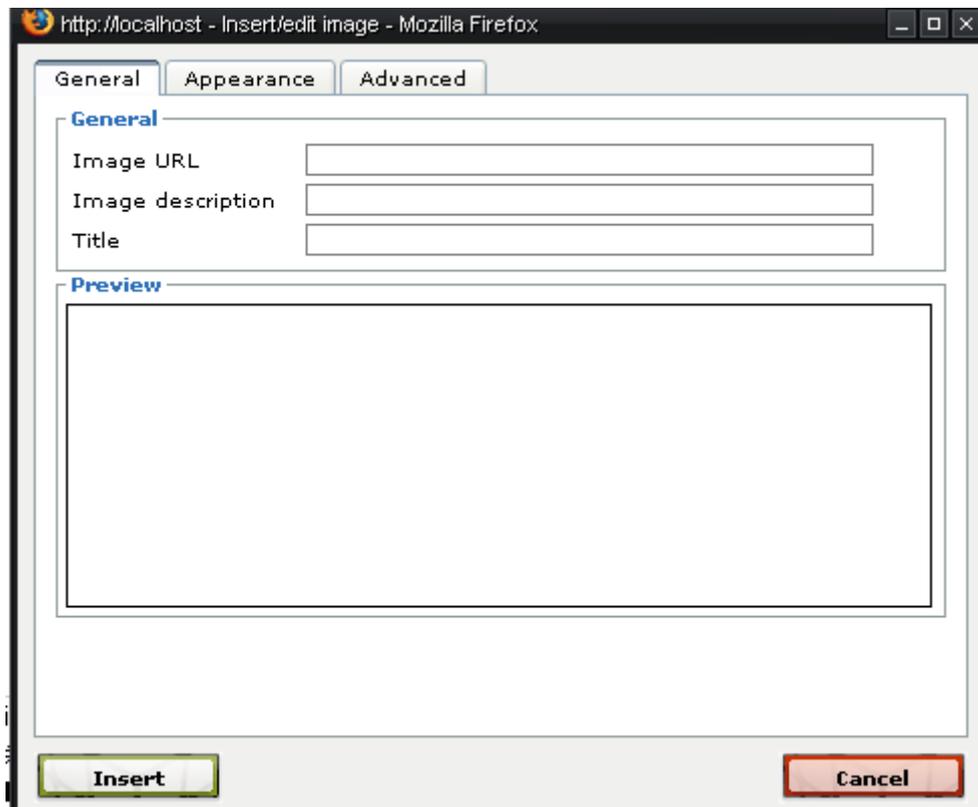
Inserting tables with copy & paste from other programs is possible.

## Images

Inserting images with TinyMCE works different than with the other editors. Because it is a HTML editor it only accepts urls for images. This means (if the image is not located on another web server) you first have to get url from the Special Page Filelist which is not very user-friendly.

Apart from that you have much more options than in normal wikis. Images can be resized as desired even mouse over actions are possible. TinyMCE lacks support for wiki image options thumbnail, bordered and framed.

Image options can be altered later via context menu or the button in the toolbar. Unlike tables images can be moved via drag and drop.



**Image 9: Editing/Inserting Images with FCKEditor**

## Support

The extension website<sup>11</sup> gives a good impression about what the TinyMCE does and who the extension can be integrated into mediawiki. It also seems to be relatively up to date.

The extension is updated regularly and the changes are documented in detail.

The TinyMCE editor can be updated separately from the extension if a new version is published.

The TinyMCE website<sup>12</sup> offers a lot of support. The manual can be found as a wiki and there is also a FAQ section and a crowded forum where one can find support from other users.

TinyMCE supports skins, themes and plugins to extend its functionality.

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<sup>11</sup> [http://www.mediawiki.org/wiki/Extension:TinyMCE\\_MW](http://www.mediawiki.org/wiki/Extension:TinyMCE_MW)

<sup>12</sup> <http://tinymce.moxiecode.com>

## 6.4. Key Feature Comparison

	FCKEditor	TinyMCE	Wikiwyg
<b>Editor Type</b>	Wikitext	HTML	Wikitext
<b>Changes to Mediawiki source files?</b>	yes	no	yes
<b>Browser Compatibility</b>	IE 5.5+, Firefox 1.5x+, Opera 9.5+, Safari 3.0+ <sup>13</sup>	IE 5.5+, Firefox 1.5x+, Opera 9+, Safari 3.x+ <sup>14</sup>	Firefox only
<b>Bold/Italic/Underline</b>	yes/yes/yes	yes/yes/yes	yes/yes/yes
<b>Table Support</b>	++	++	-
<b>Image Support</b>	++	+	no
<b>Edit Option (Tables / Images)</b>	++	++	-
<b>anchors/Links/References</b>	yes/yes/yes	yes/yes/no	no/yes/no
<b>Bulleted Lists / Numbered Lists</b>	yes/yes	yes/yes	yes/yes
<b>Undo/Redo Buttons</b>	yes	yes	no

<sup>13</sup> <http://www.fckeditor.net/>

<sup>14</sup> <http://wiki.moxiecode.com/index.php/TinyMCE:Compatibility>

## 7. Summary

Wikiwyg cannot be recommended for mediawiki integration at all. It hardly is an WYSIWYG extension at all. It has a lot of issues beginning from the installation. It has no image support whatsoever and handling tables is very inconvenient.

TinyMCE is a very sophisticated HTML Editor. Integration into mediawiki works fine and there is a lot of support and future updates are very likely. Creating and Formatting Articles is very easy and it provides the most features of all 3 extensions.

The problem with TinyMCE is that it creates HTML markup and saves it with the article. This means once integrated into a wiki all articles consist of HTML markup which makes it nearly impossible to go back to normal wiki markup.

FCKEditor is clearly the best choice for most wikis. It offers a self-explanatory toolbar in office style and has very decent drag and drop support. The big advantage is that the FCKEditor creates Wiki Markup and hence can be removed at any time without any consequences.