**Chapter X**

**X.1 What is an HTML editor**

An **HTML editor** is a program for editing HTML, the markup of a webpage. HTML can be written with any text editor but specialized HTML editors can offer convenience and added functionality. For example, many HTML editors handle not only HTML, but also related technologies such as CSS , XML and JavaScript. In some cases they also manage communication with remote web servers via FTP and WebDAV, and version control system such as Subversion or Git

**X.2 HTML Components In OpenedX**

* HTML components are the basic building blocks of the course content.
* These are used for adding and formatting text, links, images and much more.
* One can work with the HTML components in a “visual ” or WYSIWYG editor that hides the HTML code details, or in a “raw” editor that is required to mark up the content.

The openedx platform uses the following 3 JavaScript editors presently :-

1. **TinyMCE**
2. **CodeMirror**
3. **WMD**

**X.3 Options for Editing HTML Components**

To work with an HTML component “two” different editing interfaces can be used.

* **The Visual Editor (TinyMCE) :-**
* This interface is almost similar to the interface of “MS Word”.
* Using the visual editor one can create, edit, add links & images and format content without using HTML markup directly.
* The visual editor includes an HTML option for reviewing the HTML markup and can make any changes to the content if we want
* **The Raw HTML Editor (CodeMirror) :-**
* It is a text editor and it does not offer atoolbar with formatting options.
* This is used to markup content directly with HTML markup.
* To include custom formatting or scripts in the course content, a raw HTML editor is needed.

**X.4 Current Scenario Of OPENEDX HTML Editors**

**X.4.1 TinyMCE**

Version 4.0.20 (from March 2013)

4.7.13 is available as of May 2018

Why is it used

WYSIWYG editing of HTML in Studio

Bulk Email in the instructor dashboard

Plugins used

* + - The CodeMirror plugin which allows TinyMCE to interoperate with CodeMirror .
    - A spell checker.
    - A Studio skin for TinyMCE has been written

**What are the challenges?**

* The installed version of TinyMCE is very old.
* It is not accessible.
* There are a large number of edX-specific modifications that will be hard to migrate

**X.4.2 CodeMirror**

* Version 3.15 (from February 2014).
* Version 5.38.0 is available as of May 2018.

*Why is it used?*

* + - CodeMirror is used for code editing
    - HTML code in the Advanced HTML editor in Studio
    - XML code for authoring in Studio's Advanced editor for problems
    - JSON in Studio's Advanced Settings
    - Python code (and other languages) for externally graded assesments in the LMS

**What are the challenges?**

* + - The installed version of CodeMirror is very old
    - The editor may not be accessible
    - CodeMirror has issues with right-to-left, and even the most recent version doesn't seem to address it

**X.4.3 WMD**

* Version unknown (edx forked the code in 2012).

*Why is it used?*

* + used as the markdown editor for discussion posts

**What are the challenges?**

* + - WMD/PageDown is a dead project
    - WMD is not fully accessible and so some a11y changes have been applied to the edX fork
    - There are a lot of custom edX modifications that will be hard to support going forward