

Alexandria Authoring Reference Guide

Formerly known as Composing for Alexandria

Alexandria Staff

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1 Introduction

Learn about Alexandria, how to use it, and how to organize contents and projects.

[1.1 An Introduction to Alexandria's Structure](#)

[1.2 Ways to Compose for Alexandria](#)

[1.3 Planning and Organising Your Project](#)

[1.4 Size and Scope of Syllabi](#)

1.1

An Introduction to Alexandria's Structure

Introduction

The Alexandria Repository is a repository of educational content that can be shared and re-used. It is also a flexible, modular platform to develop interactive, open-source curricula to be viewed on the web or as an eBook. Alexandria can provide a liberating experience for educators accustomed to older authoring tools.

Learning Modules

The fundamental unit of content in Alexandria is called a *Learning Module*. Each learning module represents a related body of material involving a particular, somewhat narrow topic. While a learning module could technically contain an entire treatise, it is intended to enable learning by illuminating a particular concept or related group of concepts. Learning Modules are self-contained lessons that can then be organised with other modules to form a more comprehensive educational work.

Media, Documents and Interactives

Learning modules can contain text, media and documents. *Media* items include pictures, images, sounds, and movies. *Documents* are an additional form of media and include MS Word files and PDFs. *Interactives* are another form of media, including simulations and controllable animations, with which students can take a hands-on approach to become a more involved part of the learning experience. Learning modules can also include quizzes, help students gauge and reinforce what they have learnt.

Syllabi

A *syllabus* (<https://www.alexandriarepository.org/alexandria-glossary/#syllabi>) organises learning modules into semantically larger groups, such as for an entire unit, textbook, or other groupings of knowledge. Use Syllabi to collect and order learning modules by others and yourself into sections and subsections, much like chapters and sections in a book. Syllabi can link to Learning Modules individually or into group them together into sections.

An example of a syllabus structure is below. It comprises attached learning modules which in turn contain text, media and other learning objects.

Learning to Program the Ruby Language (syllabus)

- Setting Up Your Environment (*learning module*)
 - Text describing command line
 - Image of terminal window with command line (*media*)
 - Example of Unix commands (*code block*)
 - Downloading and installing Ruby (*text, links*)
- Your First Program (*learning module*)

- Introduction (*text*)
- Sample code (*code block*)
- Sample output (*preformatted text*)

Metadata

Learning Modules and Syllabi both contain several important types of metadata, including *categories* and *tags*. Categories are high- and mid-level divisions of topics, and are hierarchical in nature. In contrast, tags are important terms that describe or include the content of a learning module. (Syllabi can also be tagged with more specific topic labels and unit numbers).

1.2

Ways to Compose for Alexandria

Developing Curriculum on Alexandria

There are several ways to develop curricula on Alexandria:

- Write your own *learning modules*.
- Organise new or existing learning modules into your own *syllabus*.
- Fork existing learning modules or syllabi and customize the derivative version as desired.

An objective of Alexandria is to enhance learning by transcending the traditional lecture and textbook experience. Authors are encouraged to mix various media in their content and include interactive activities. For example, a single learning module can include an introductory paragraph, launch into a video tutorial, then provide an interactive simulation.

Developing Rich Learning Content

You can incorporate a variety of media into learning modules, including:

- Graphics (GIF, JPEG, PNG formats)
- Movies (MP4, M4V, WebM, MOV, MP4, Youtube)
- Simulations (Javascript, Insightmaker, more coming!)
- Code (Python, Java, Ruby, Pseudocode, other)
- Documents (PDF, MS Word)
- LaTeX Math
- Quizzes

1.3

Planning and Organising Your Project

Getting Organized

Alexandria provides a flexible framework for organising content. In fact, a great way to start planning and organising your project is to create a new syllabus, and attach empty learning modules to represent the highest level of the outline for your content. You can then create nested empty learning modules to represent lower levels. (Make sure to save your work, including at the syllabus level.) You can fill those modules with actual content later.

An advantage of Alexandria is that you can easily re-arrange your outline (using the Module tab in the syllabus). No cutting or pasting is required. Simply drag the bar representing the learning module (or groups of learning modules) in whatever order you desire. Life rarely gets easier than this!

The empty learning modules are real learning modules to which you can later add your content. Yet the point is that you can create empty learning modules, and first organise and arrange them as you wish, allowing for the rapid prototyping of educational materials. This allows you to better order the content and determine the best way to break it down and make it flow well. Remember to delete, then detach any empty learning modules that you will not use in the future.

You should include references within each learning module, rather than group them together elsewhere. If you break a subject out of that learning module, such as into a nested learning module, then you should move the references to the nested learning module. Otherwise the references may get separated from the work that which they refer.

Early in you project, it may be advantageous to identify the items of external media that will be required and to start requesting permission, or *licences*, to use that media.

Alexandria Content in Moodle

It is now possible to embed Alexandria content into Moodle sites. If you wish to do so, you ask yourself how you will incorporate Alexandria content into Moodle, and how you desire the progression through content to occur for students and other users.

1.4

Size and Scope of Syllabi

Introduction

We recommend creating a single comprehensive syllabus for a unit, rather than many smaller ones for each week or lecture.

Reasons

Below are several few reasons for creating unit-level syllabi:

1. Authors only need to put one link up on Moodle, linking students to the reader view on Alexandria, for which students can then choose to read online or download as ePub or PDF. Note that you can still add links from each week if you like, linking into the specific part of the reader view on Alexandria. Students will then still have the choice to read online or download the latest version of the book, in the format of their choosing. Alexandria now provides an option to embed Alexandria within Moodle to provide an even more streamlined experience. It will also pave the way for storing results into the Moodle grade book.
2. Managing permissions is easier, as you possibly only need to manage them in one place (one syllabi) for the entire unit.
3. It's easier to archive an entire unit, where by you create a new derivative for the new semester. This of course also makes it easier to look back and see what was taught in earlier semesters.
4. It's easier to manage and navigate between units if they map directly to syllabi, for both authors and students alike (e.g. think of how many ebooks a student would have on their ePub reader if every unit was made up of many ePubs).
5. Students are accustomed to working with a single textbook. We don't chop up textbooks and hand them out. We instead tell students to read or work through "Chapter 3: Polymorphism" (which in this case could of course be a link).
6. Modules pick up metadata (Categories, Licenses) from syllabi, which will save you much time in entering such.

Other Considerations

There may be valid reasons for splitting up a unit into multiple syllabi. For example, for content-heavy units, the resultant eBook may be too lengthy to conveniently print or read. Internet band width may be more of an issue for some units.

2 Syllabi

[2.1 Finding Syllabi](#)

[2.2 Creating A New Syllabus](#)

[2.3 Editing Syllabus Sections](#)

[2.4 Adding Content to Syllabi](#)

[2.5 Generating eBooks](#)

[2.6 Publishing your Syllabus](#)

[2.7 Derivative Syllabi \(Forking an Existing Syllabus\)](#)

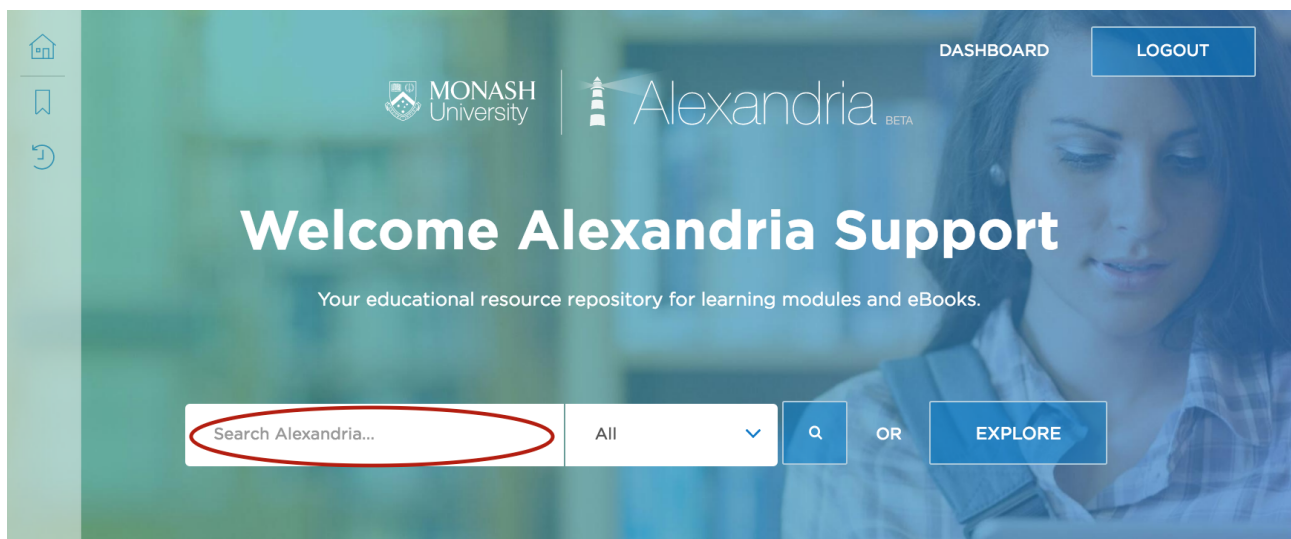
2.1 Finding Syllabi

Introduction

You can find syllabi, either through the home page search panel or the dashboard. Home page search results are targeted more towards user needs. Dashboard results are targeted more towards author needs.

Home page search box

To find a syllabus using the home page search panel, go to the Alexandria home page, choose the Syllabi item in the Search panel pulldown menu, and enter your search terms (see red circle image below).

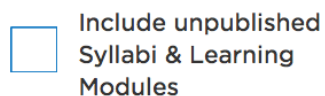


Alexandria Home Page search term entry box



Or you can also use the *EXPLORE* button to find results by *Category* and then narrow the search with a Subcategory.

Click on the Syllabi or Modules button (see left image) to unselect that content type to remove items of that type from the found results. If you are just seeking syllabi, this can greatly narrow your found set.

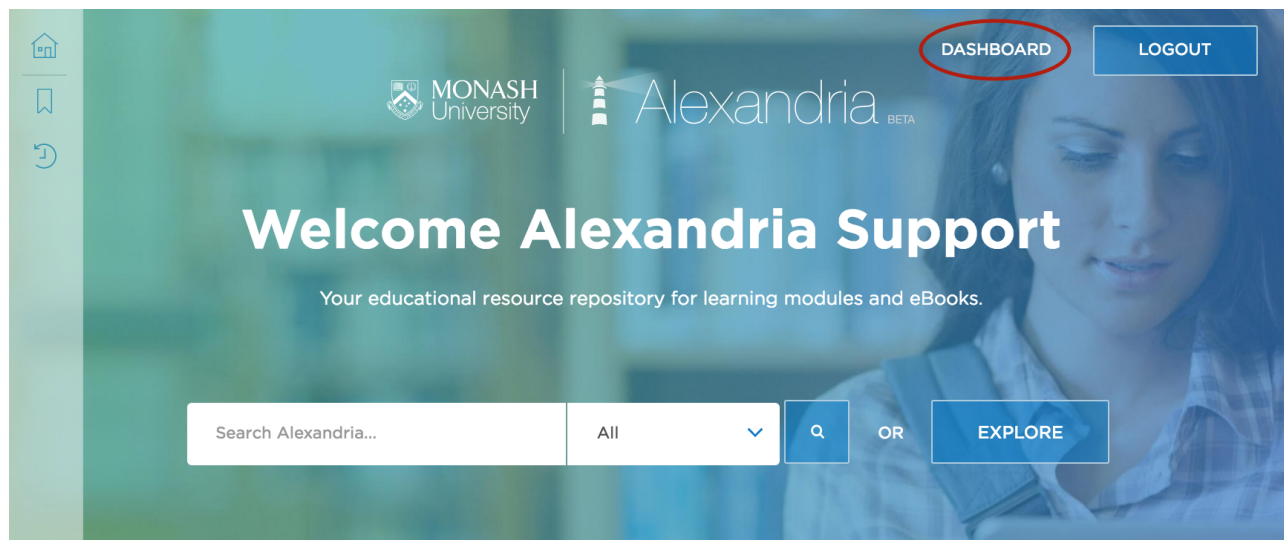


Home page find options

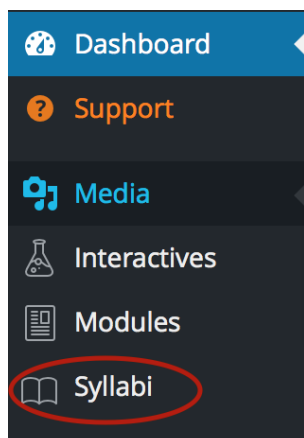
You can check a box on this panel to see unpublished syllabi to which you have access. (You will only be able to see unpublished syllabi for which owners have granted yourself or all authors permission to view).

Dashboard

To find syllabi that only you yourself have permission to edit, go to the Alexandria dashboard by clicking in the dashboard link on the home page (see red circle on image below).



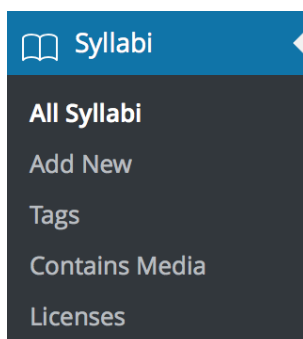
Link to dashboard



Dashboard syllabi choice

Then click on the *Syllabi* menu item (on the left-hand side of the screen). You will see a list of your syllabi, as well as possibly others for which you have some level of access.

If you need to further refine your found set, select a category and/or search terms to filter your results. Alexandria searches are inclusive. More terms (words) will sometimes produce more results. In contrast, sometimes fewer words will produce a narrower set of search results.



Dashboard syllabi menu

To see only syllabi that include yourself on their bylines, click on your name on any syllabus for which you are listed as the author. A list of the syllabi with your name in the byline will be listed. You can once again narrow the found set by choosing a category filter or using the search box.

To see an individual syllabus just click on the syllabus name.

| | | | | | | |
|--------------------------|---|---|---|---|--|-------------------------|
| <input type="checkbox"/> | FIT3139 – Computational Science | FIT3139 | – | Arun Konagurthu | | 2013/06/22 Published |
| <input type="checkbox"/> | FIT1029 – Algorithmic problem solving – 2013 Semester 1 | Algorithms, FIT1029 | – | David Albrecht | | 2013/06/22 Published |
| <input type="checkbox"/> | MON1002 The changing face of science: how computational science helps us make sense of the world | Methods, Models, MON1002, Scientific Computing, Tools | – | Bernd Meyer | | 2013/06/18 Published |
| <input type="checkbox"/> | Simulation with Cellular | Modelling, Simulations Cellular | | Aidan Lane, Bernd Meyer, Jonathan Mullins | | 2013/06/13 Published |

List of syllabi

Editing a syllabus



While viewing a syllabus you have already found in view mode, you can use the toolbar (shown below) to edit the Syllabus. Click on the icon of the square with a pencil in it.



If you want to edit a copy of the syllabus, click on the derivative icon immediately below the checkbox. Only the syllabus itself will be a copy. The attached learning modules will still be the original modules.

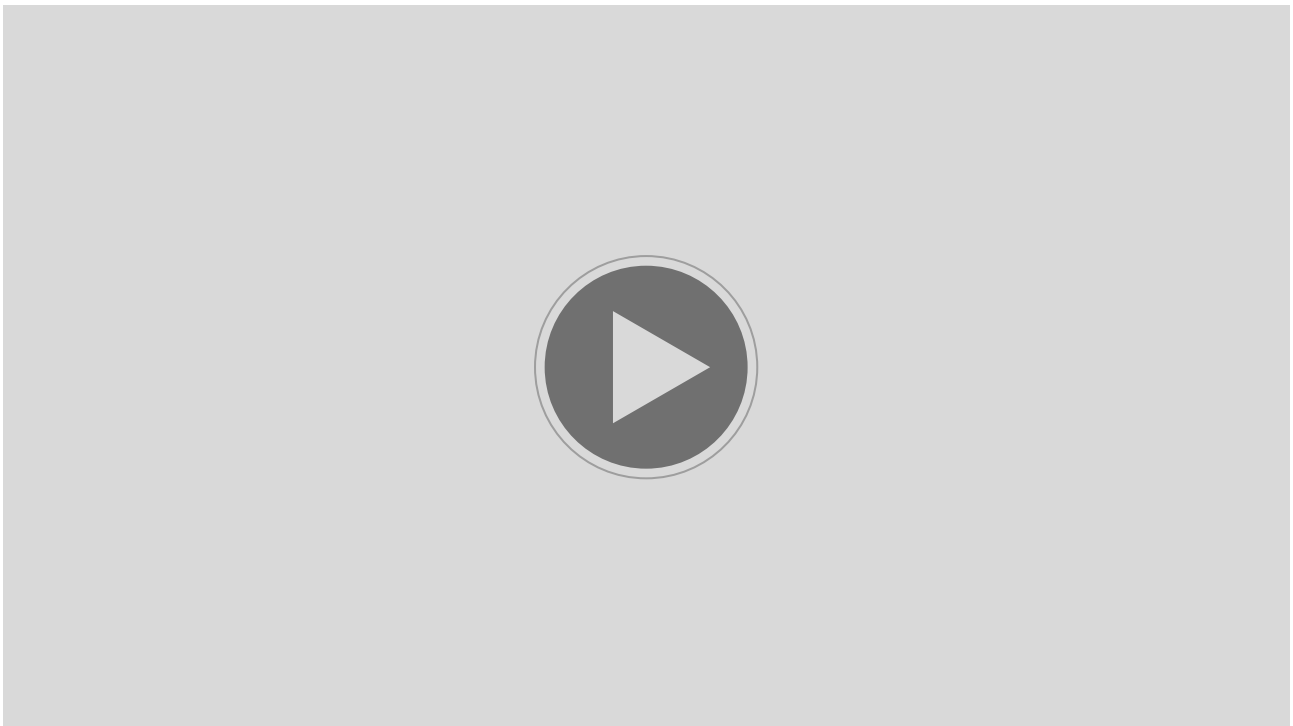


Syllabus
actions:
edit

2.2 Creating A New Syllabus

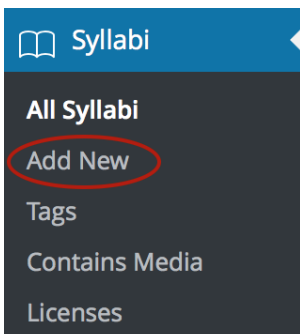
Introduction

An easy way to start developing is to create your own *syllabus*, and attach pre-existing *learning modules* to it. You can then rearrange the modules in whatever order you desire and group them together with headings and subheadings. The below video will demonstrate how to create a syllabus.



(https://www.alexandriarepository.org/wp-content/uploads/20140113055231/create_a_syllabi_01_16MB.mp4)

How to Create A Syllabus



Syllabi menu with Add New choice selected

To create a syllabus, click [here](#)

(https://www.alexandriarepository.org/wp-admin/post-new.php?post_type=module), or on the "Add New" item under Syllabi in the Dashboard's left sidebar (these items require Publisher access to open and use).

A new syllabus will be created. You should see several tabs under the title area (see below). Click on the "Syllabus" tab, if it is not already opened.

You should first enter a title for the syllabus in the field above Subtitle. The title should be short, but descriptive. It should not contain a unit number, in order to enhance re-use. Likewise, avoid using all caps for the title, because it is distracting and may be read as shouting by some (and may affect accessibility by being interpreted as acronyms). Likewise, it is best (but not absolutely required) not to include special characters beyond those on a standard keyboard.

Save Early and Often!

To save the syllabus and any changes, click on the "Save Draft" button. You can edit any of these fields later, but it is best to save early and often.

Authorship and Metadata

The byline is auto-populated based upon the owners, but it can be edited to more accurately reflect authorship. You can enter a Subtitle, but this is optional. Enter the metadata fields such as Categories and Licenses (if nothing else, at least enter the licence information).

The screenshot shows a form for creating a syllabus. The title is "Composing for Alexandria". Below the title is a "Subtitle:" field. The "Byline:" is set to "Alexandria Staff". The "Permalink:" is "https://www.alexandriarepository.org/syllabus/composing-for-alexandria/" with "Edit" and "View Syllabus" buttons. There is a "Get Shortlink" button. At the bottom, there are four buttons: "Syllabus" (circled in red), "Attached Modules", "EPUB", and "Analytics (beta)".

Contents

Then enter the synopsis (optional) for the syllabus. Note that this section not appear in eBooks. It is tempting to repeat the title in the body of the syllabus. However, this is redundant and should be avoided. It is unsightly and can confuse accessibility readers.

Then click the "Save Draft" button. You can edit any part of the syllabus later. Note that the syllabus is not yet published nor available to Alexandria users. You can keep the syllabus in draft mode until you have finished it to your satisfaction.

2.3 Editing Syllabus Sections

Introduction

A syllabus has several sections you can edit to annotate and customise your content.

When you are in *edit* mode, at the top of the window, you will see a general information area with title, subtitle and byline fields. It is *extremely* important that the title is filled out before the syllabus is saved. In fact, entering the title is the very first thing you should do when creating a new syllabus (you can change it later).

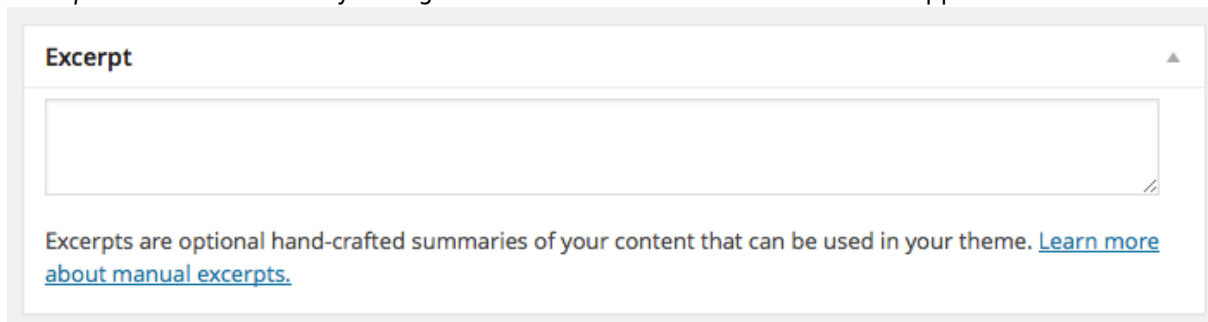
In the right sidebar is a *Publish* panel that controls the status of a post and allows it to be saved, published and updated. (On a mobile device, the Publish panel may appear below some other sections). You should go ahead and click "Save Draft" in this panel right now.

In edit mode, syllabi have the several tabs representing particular panels, as shown below.

Syllabus tab

This tab contains a synopsis field, and metadata panels (Categories, Tags, Contains Media, Licenses and Featured Image), and a Derivative Works panel.

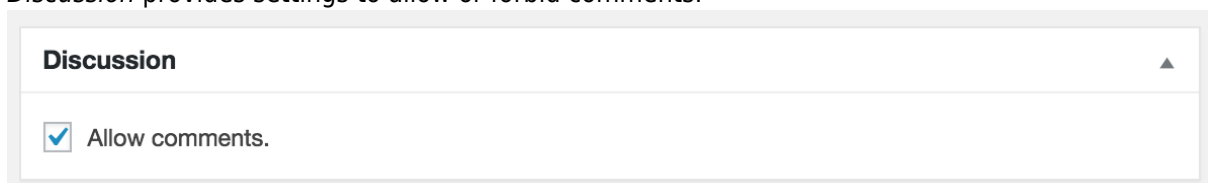
- Synopsis (introductory content that will not appear in an EPUB)
- *Derivative Works* contains information regarding derivative (or forked) syllabi versions as well as the ability to create new derivatives.
- Revisions (edit history)
- *Excerpt* is where a summary or segment of the content can be included to appear in search results.



Excerpt

Excerpts are optional hand-crafted summaries of your content that can be used in your theme. [Learn more about manual excerpts.](#)

- *Discussion* provides settings to allow or forbid comments.



Discussion

Allow comments.

Syllabus comments checkbox

- Comments

Attached Modules tab

This tab contains bars representing learning modules and module-less headings, arranged in the order they should appear for viewers.

- Central column
 - *Learning Modules Items* is where sections and learning modules are attached to a syllabus and ordered.

eBook tab

The tab includes buttons to generate EPUB format eBooks, and download that ePub. There are also fields for metadata for the eBook.

Analytics tab

This tab contains page views for this syllabus as well as for attached learning modules.

- Analytics ([detailed information](https://www.alexandriarepository.org/reader/composing-for-alexandria/32158) (https://www.alexandriarepository.org/reader/composing-for-alexandria/32158))

Right Sidebar

(May appear below tabs on mobile devices).

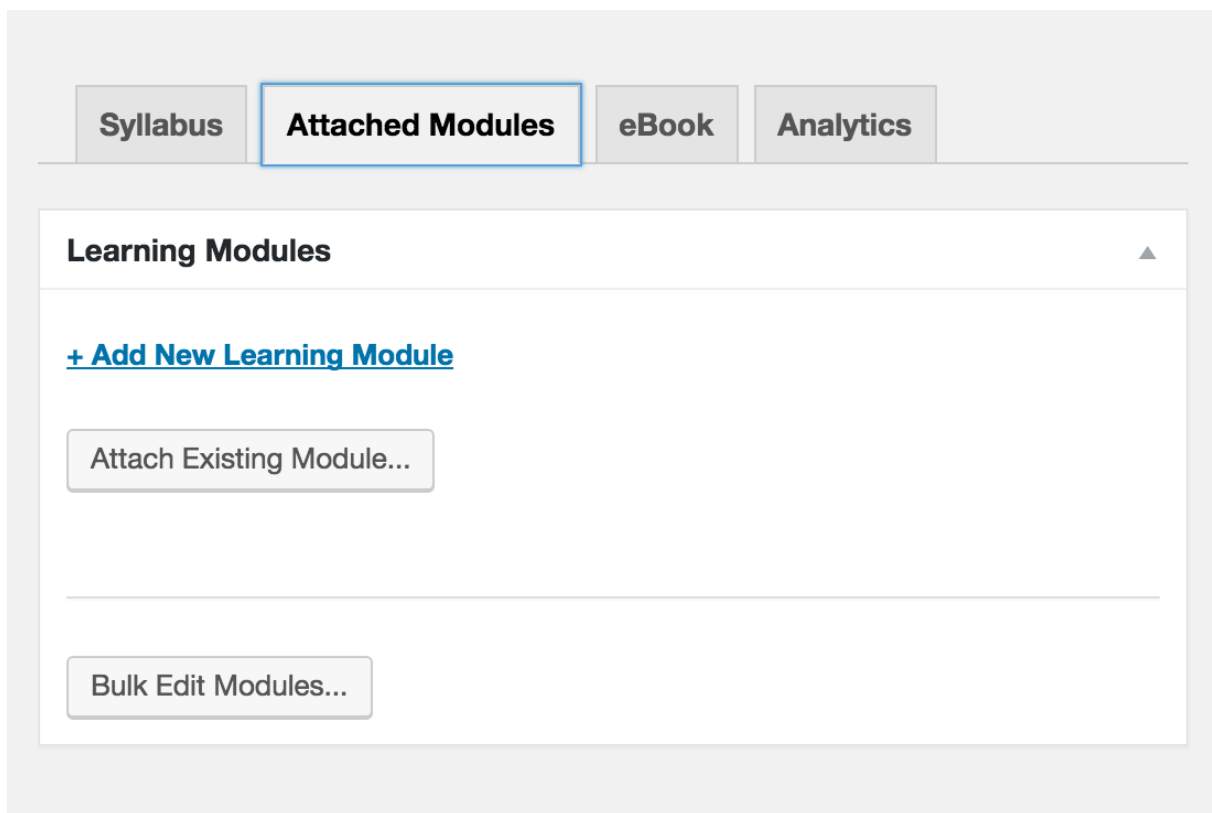
- *Categories* allows the post to be categorised and new categories to be created. In some cases, categories may include nested subcategories. Only check the box for the lowest level subcategory used; do not click boxes higher up in the hierarchy (which will be included inclusively).
 - *Tags* help users to find posts by topics that are not included under categories.
 - *Contains Media* indicates the type of media included in the syllabi
 - *Licenses* indicate licenses to which the syllabi are subject.
 - *Featured Image* is an image that will may show up at the top of the module and in some search results.
-

2.4 Adding Content to Syllabi

Introduction

You can add content to a syllabus by creating learning modules. The you add text, media and other learning objects to each learning module. If you desire, you can then group together modules into sections and subsections, to have the equivalent of chapters and sub-chapters.

To start, click on the Modules tab (see below).



Empty syllabus tab

Adding A New Learning Module

To add a new learning module, click on the "+ Add a New Learning Module" link (see above graphic). This will provide a box into which you should type the title of the new module. Learning modules thus created will inherit Permissions, Byline, Categories and Tags from the syllabus. You can uncheck relevant boxes to NOT inherit particular items of metadata (see image below). Then click on the "Create & Attach" button.

Learning Modules

[+ Add New Learning Module](#)

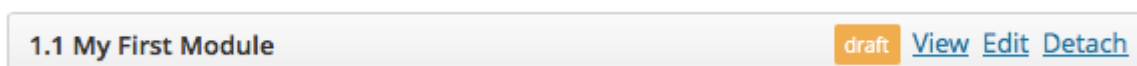
Title:

Inherit: Permissions Byline Categories Tags Licenses

New learning module title box.

The new learning module now exists, and a bar representing it should show up at the end of the modules list, but it is empty except for its title. **Remember to click "Update" or "Save Draft" button on the syllabus**, so that the attachment of the module to the syllabus is saved.

The learning module bar contains several items. "draft" simply means that the module has not yet been published. There may be icons that indicate the type of media contained in the module. "View" allows you to see the module in preview mode. "Detach" removes the module from the syllabus, but it does **not** delete the module itself. To populate the module, click on the "Edit" link in the module bar.

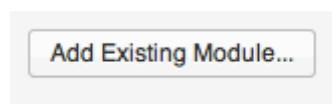


Learning module bar

You can move the learning module bar to wherever you wish in your syllabus. You can nest learning modules under a section or even another learning module. Just click on the background of module's bar, and drag it a few centimeters to the right. It should snap into place. Although it is possible to have multiple levels of nesting, this should be used sparingly to avoid confusion. In fact, you are limited to five levels of nesting.

Adding an Existing Learning Module

You can also include an existing learning module in your syllabus by clicking the "Add Existing Module..." link. This will take you to a dialog box that will allow you to search for the desired learning module.



Button to add existing learning module

Unless you are the creator of that module, you might not be able to edit it. However, you may be able to edit a derivative (forked) version of that module.

Eventually, your table will be populated with learning modules (see below). Remember to update your syllabus before closing it to save the addition of the new module.

Edit Syllabus [Add New](#)

Synopsis & Metadata **Modules** EPUB Analytics (beta) Other

Composing for Alexandria Pub

Permalink: <https://www.alexandriarepository.org/syllabus/composing-for-alexandria/>

[Edit](#) [View Syllabus](#) [Get Shortlink](#)

Learning Modules

| | |
|---|--|
| 1 An Introduction to Alexandria's Structure | View Edit Detach |
| 2 Ways to Compose for Alexandria | View Edit Detach |

[Edit](#)

Adding Headings

You can group together modules into sections and subsections. Add a new section heading to your syllabus by creating new learning module (whose title is the section name). Then nest related modules underneath it.

[+ Add New Learning Module](#)

[Attach Existing Module...](#)

Add modules

Section Table of Contents

By the way, you can go to the *Insert Element* menu and choose *Sub-Table of Contents* to create a table of contents just for that section. It will include links to any modules nested under that section. It does this by inserting the following shortcode: [sub-toc].

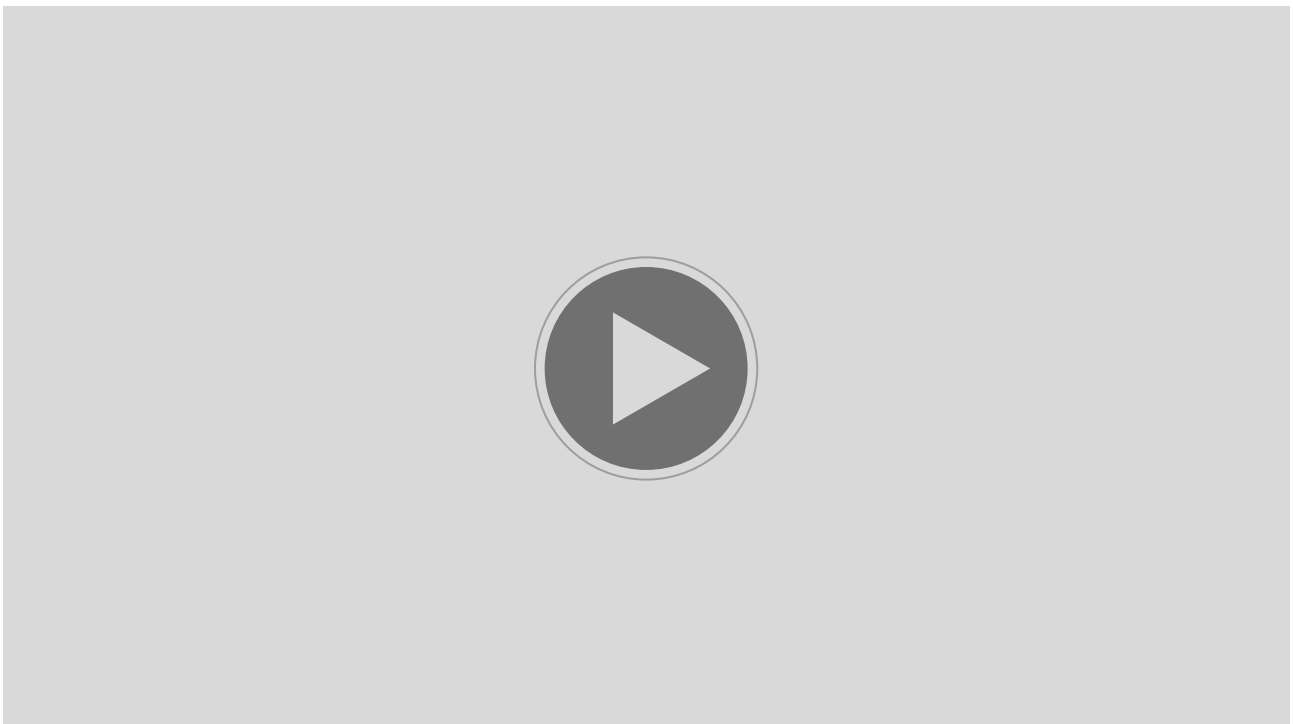
2.5 Generating eBooks

Introduction

The ability to convert your syllabi and associated content into eBooks is a key capability of the Alexandria Repository. This capability can be extremely useful for students, especially those with limited bandwidth at home. An *eBook* is a general term for an electronic publication. An *ePub* is the particular format outputted by Alexandria.

How to Generate an eBook

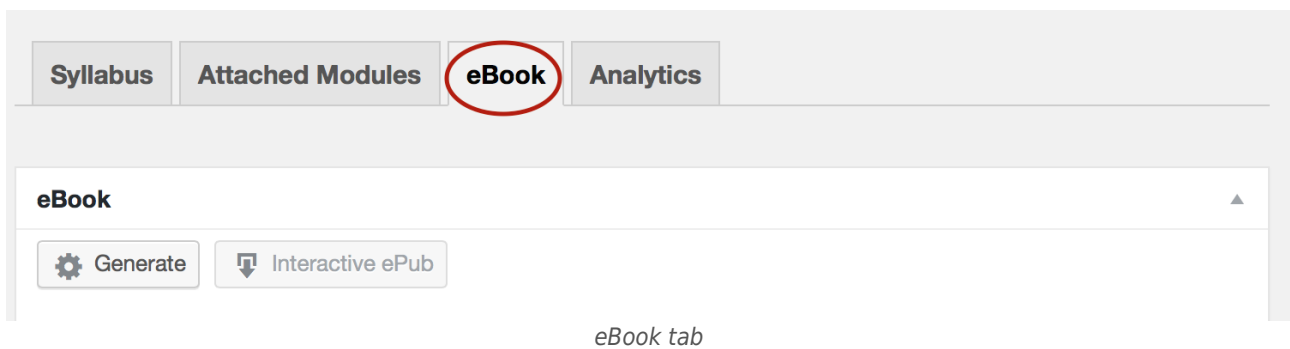
Watch the following video to view the steps required to generate an eBook. Conversely, you can read the instructions below the video.



(https://www.alexandriarepository.org/wp-content/uploads/20150918045302/Alex_tut_generate_eBook.mp4)

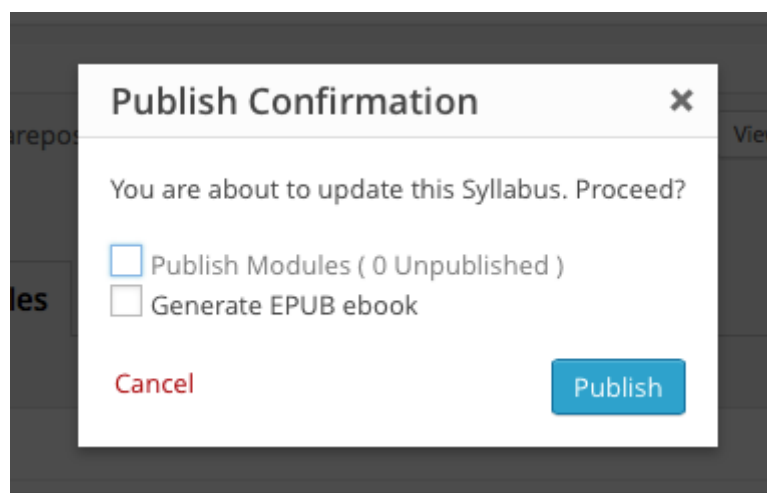
Unlike Alexandria, which typically requires a Monash Authcate account, your eBook can be copied and circulated to anyone. So when making eBooks available, it is especially important that you have copyright and other necessary permissions and licenses to distribute the content in your syllabus outside of Monash University.

Next, open a new window by clicking [here](https://www.alexandriarepository.org/) (this link requires Publisher access to open and use). Find your syllabus and view it in edit mode. Click on the eBook tab.



Fill in any information such as "Publisher" then click on the Generate button. You will be taken through a series of questions about copyrights and other matters. Once you are done, an eBook will be generated. You can click on the Interactive ePub button to download it after it is generated.

Whenever you publish or republish your syllabus, you have the option to generate an updated eBook (see below).



Syllabus publishing dialog box

Alert! When you change modules attached to a syllabus, those changes will only be reflected in the eBook and PDF after you have regenerated the eBook and PDF at the syllabus level. Neither changes to modules nor syllabi automatically update the eBook or PDF.

Tips

To set the cover image for an eBook, simply use the Featured Image selector (lower righthand side of window in edit mode) for the syllabus. Whatever image you chose will be the exact image that will appear as the cover.

- Use a sufficiently high-resolution, or appropriately-sized, image. Avoid using thumbnail-sized images, because they may look pixelated when used for the cover. For printing, 300 DPI (dots per inch) or higher is best.
- Use an appropriate shape. Square is OK, but an image with a slightly larger vertical dimension may look better. Avoid very wide, or very thin and tall images.
- If you want text to appear on the cover, you should add it to the image itself.

- You should test the cover image on an actual eBook before distributing it. The cover image is more sensitive to problems than images within the learning modules (which can be previewed more easily).

Caveat

- Generating eBooks containing a lot of LaTeX can take a really long time. Yet if you are the type of person to have the intelligence, wisdom and fortitude to use LaTeX, then we expect that you also know the old adage "good things come to those who wait."
-

2.6 Publishing your Syllabus

Getting Ready to Publish

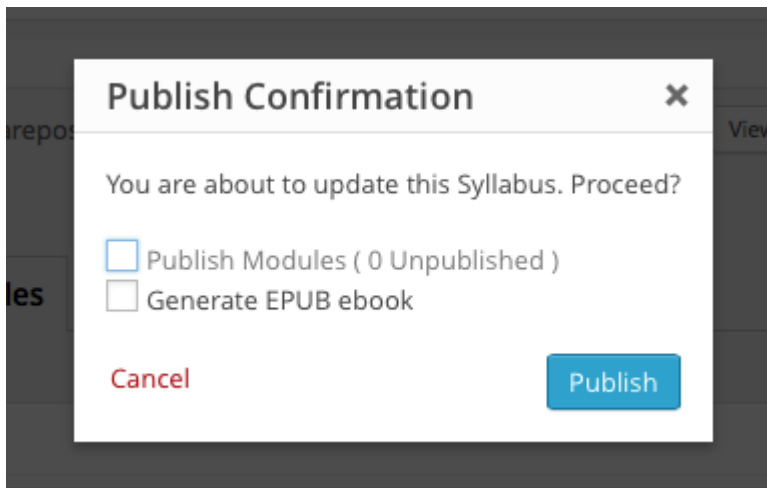
Before publishing a syllabus, you should ensure the title, byline and metadata fields are completed. (The *Licenses* metadata field should *not* be left blank in under any circumstances.)

Be careful! Be certain that the attached learning modules are ready to publish before checking this box. On the other hand, if you have draft version learning modules associated with your syllabus (and leave them as drafts), viewers will be able to see that such modules exist, but not their content, which may result in a frustrating user experience.

Publishing

When ready, click the Publish button.

A dialog box (below) will pop up and ask if you really wish to publish the syllabus. Check the desired options. If you have *already* generated an eBook *after* making any changes since the previous generation, then you can leave that box unchecked to save time. Then click on the Publish button. Viewers will now be able to see your syllabus.



2.7 Derivative Syllabi (Forking an Existing Syllabus)

Introduction

It is possible to create a [derivative](https://www.alexandriarepository.org/alexandria-glossary/#derivative) (also called a fork) of an *existing* syllabus. There are several reasons to do so. First, you might wish to make significant revisions upon a syllabus while keeping the original copy intact for people to use or for your reference. Second, you might wish to adopt someone else's syllabus with your own changes.

Creating a derivative syllabus

The preferred way of forming a syllabus is by using the Derivative button when viewing the syllabus! (See below). If that button does not appear, that means permission has not been granted to make a derivative of it.



Alternatively, while in edit view for a Syllabus, go to the Derivative Works section and click on the "Create Derivative Learning Syllabus" button.

Create Derivative Syllabus

Create derivative syllabus button

You will be taken out of the existing Syllabus into a duplicate derivative one. After doing so, please take care that you are editing the correct version (if you have editing privileges for both).

Note: the license for some modules and syllabi do not allow forking, and these are typically denoted by the term "No Derivs" in the license name.

Create
derivativ
es
button

Derivative syllabi vis-a-vis learning modules

Creating a derivative syllabus does *not* create derivative learning modules. So if you edit a learning module attached to a derivative syllabus, you are editing the *original* learning module.

If you wish to create derivative learning modules, you should create a derivative of each learning module separately, then attach it to the syllabus.

Deleting syllabi

Let's say you have owner rights over both the original syllabus and its derivative. You want to delete the derivative. Be *very careful* that you are deleting the derivative syllabus and not the original.

When you delete a derivative syllabus, the attached learning modules will *not* be deleted. So to make life easier for you, from within the syllabus, locate any learning modules you wish to delete and open them up in edit mode in a new window. Then delete those learning modules from within their own windows. Also be *very careful* not to delete any learning modules that your or others may require for other syllabi.

3

Learning Modules

Find out more about creating and using *modules* (formerly known as *learning modules*).

- [3.1 Introduction to Learning Modules](#)
 - [3.2 Creating Modules](#)
 - [3.3 Editing Tools](#)
 - [3.4 Guidelines for Developing Modules](#)
 - [3.5 Style and Format Examples](#)
 - [3.6 Copying and Pasting Caveats](#)
 - [3.7 Cleaning up bad formatting](#)
-

3.1

Introduction to Learning Modules

[Learning Modules](https://www.alexandriarepository.org/alexandria-glossary/#learningmodule) (<https://www.alexandriarepository.org/alexandria-glossary/#learningmodule>) are at the heart of the Alexandria Repository. Learning modules are the fundamental unit of content. They have their own author(s) and metadata. In fact, you are viewing a learning a learning modules right now as you read this! Learning modules in Alexandria do not have to be the same in scope as an academic unit module.

Learning modules should be capable of both standing on their own as well as being combined with other learning modules into *syllabi*. Therefore, a learning module should cover enough material and be sufficiently complete to be educational in and of themselves. Yet learning modules should also be written in a manner that makes them compatible with other learning modules.

Learning modules can contain text, images, videos, interactive simulations and documents. If an owner of a learning module permits, derivatives can be made of it.

3.1

ROBOTICS WITH ENCHANTING AND LEGO® NXT

Getting to Know Your NXT Robot

By Aidan Lane, Bernd Meyer, Jonathan Mullins

In this first tutorial, we'll look at the very basics of using Enchanting to program your LEGO® NXT robot. This includes how to connect to your robot and how to ensure that you have the correct firmware loaded onto it. You'll also learn how to run a basic program that plays some tones and prints some text to its screen.

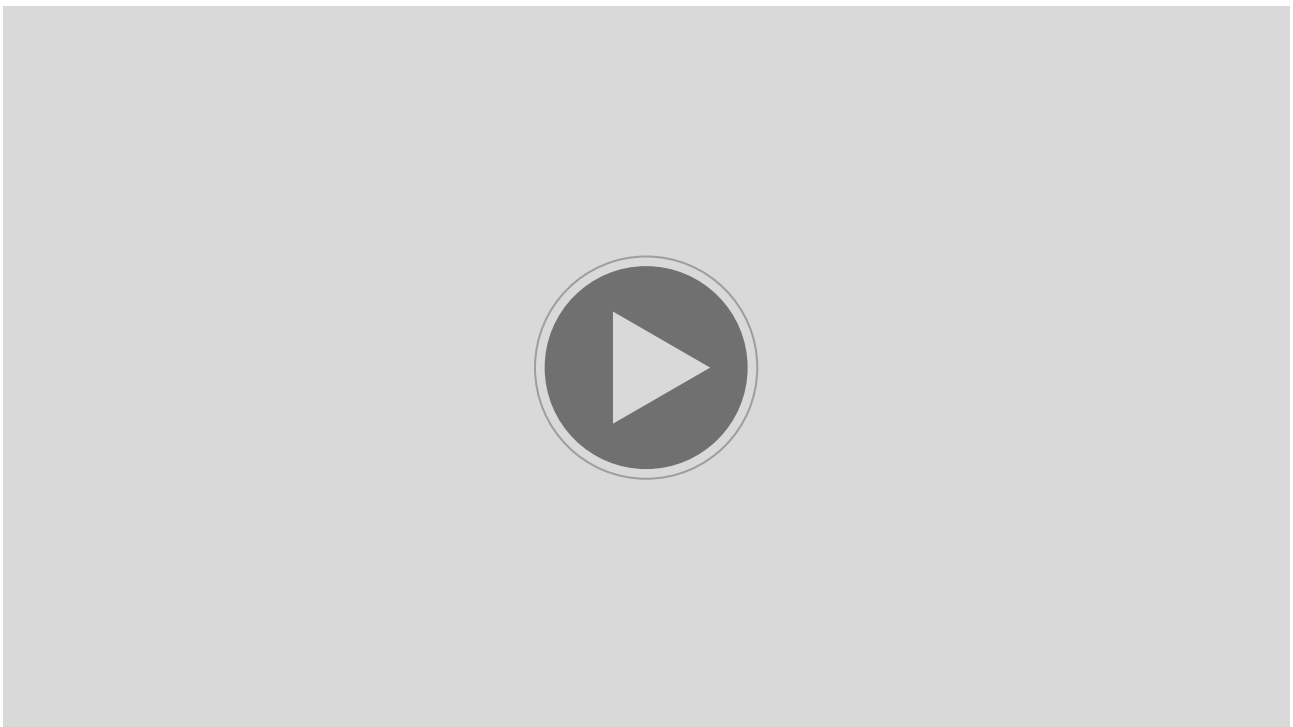


Top of learning module

3.2 Creating Modules

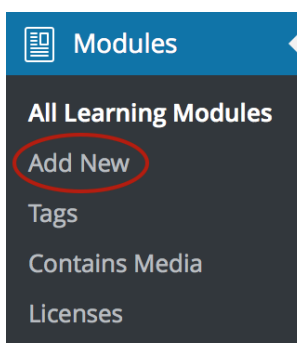
Introduction

Creating a [learning module](https://www.alexandriarepository.org/alexandria-glossary/#learningmodule) involves planning, style and a few technical details, some of which we will cover in the following video and text. The following video demonstrates creating a learning module.



(https://www.alexandriarepository.org/wp-content/uploads/20140113054743/create_learning_module-20MB.mp4)

How to Create A Module



Add New choice on dashboard module menu

If you plan to use a module for a particular syllabus, it is easiest to create the module directly from within the syllabus. (See [Adding Content to Syllabi](#)). However, if you intend to create a stand-alone module, go to the Modules menu and click on the *Add New* choice.

You should immediately provide the module with a title (which you can edit later) in the field immediately below "Add New Learning Module". It is best not to include unit numbers in Module names, but rather to include unit numbers in the *Tags* metadata field. Further, titles with all uppercase letters should be avoided because this can interfere with accessibility and distract readers.

Add New Learning Module

Subtitle:

Byline: Alexandria Support

Module Analytics

Add Media + Insert Element

Visual Text

Paragraph

Formats

Publish

Save Draft Preview

Status: **Draft** [Edit](#)

Publish **immediately** [Edit](#)

Permissions: [Edit](#)

Permission edits restricted to owners.

Owner: support@alexandriarepository.org

Open Access: No Access

Monash Students: Can Read Published

Monash Staff: Can Read, Reuse, Derive Published

Move to Trash **Publish**

Categories

All Categories **Most Used**

Alexandria

Learning module

Authorship, Metadata and Content

It is tempting to repeat the title in the body of the module. However, this is redundant and should be avoided. It is unsightly and can be confuse accessibility readers.

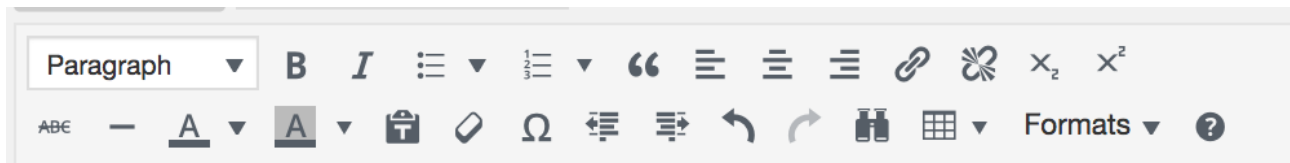
Don't forget to enter the metadata, such as category, tags and license information! If you do not see a suitable category, you can request one.

You can enter content immediately or in the future. You can save your drafts now and publish the module later, or publish immediately.

Finally, click "Save Draft" to save the module and any changes.

3.3 Editing Tools

Alexandria provides a feature-rich tool bar with which to edit the contents of learning modules (see below).



Editing toolbar

In order, from left to right for first row, then left to right for the second row, here are the tool categories:

- Content type selector
- Bold and Italic formats
- Unordered list format, with pulldown menu to select bullet styles
- Ordered list format, with pulldown menu to select number/letter styles
- Quote format
- Alignments
- Create link and remove link
- Subscript and Superscript
- Strikeout
- Horizontal line
- Shade type and shade type background
- Paste as Text
- Clear formatting
- Insert special symbol
- Indent and un-indent
- Undo and redo
- Find and replace
- Insert or format table
- Format pulldown menu
- Keyboard shortcuts (some additional format and navigation tools; see [here](https://codex.wordpress.org/Keyboard_Shortcuts) (https://codex.wordpress.org/Keyboard_Shortcuts) for more information)

3.4 Guidelines for Developing Modules

Introduction

The Alexandria Repository's consistent look and feel distinguishes it from many other open source educational repositories. Modules should be capable of seamless integration with each other. The following guidelines improve consistency and ability to integrate modules together into syllabi:

- Provide an introductory paragraph in each module. However, avoid language such as "in the previous section, we learned ..." A concluding paragraph may be appropriate as well, but avoid language such as "next, we will cover ..."
- Do not include unit numbers in the titles of learning modules, as this discourages re-use. It is better to include the unit number as a tag.
- Do not include section numbers or other ordering information into the titles of learning modules. Alexandria will automatically number any sections, subsections and modules in syllabi.
- Do not include external ordering references in learning modules, such as subsection numbering or higher level numbering of graphics. It is best not to number subsections within a module; A,B,C is less undesirable, but avoid forms such as 1.A, 1.B, 1.C that reflect the order of the module in a syllabus. It is best to denote sections and subsections through hierarchical use of heading formats such as "Heading 2" and "Heading 3" the provide semantic meaning to accessibility devices.
- Listing prerequisite skills and concepts can be helpful, but do not refer to specific other learning modules.
- Define any vital terms that would not have been covered by prerequisite knowledge.

Don't Forget to Add Metadata

A good practice is to add *metadata* to the right sidebar sections, including Categories, Tags, Authors, Contains Media and Licenses, immediately upon creating a learning module. This data is essential to the modular nature of Alexandria. It also allows users to be better able to find your content. By policy, license metadata is required, due to potential copyright issues.

Other style guidelines

The following is a suggested style guide for Alexandria. Many style elements, such as fonts and margins are automatically set by Alexandria. Others (such as heading levels) you will set manually, but it is nevertheless best to follow these guidelines unless there is an exceptional reason to do otherwise.

- Headings
 - Primary headings within a learning module should be in "Heading 2" format, secondary headings as "Heading 3", and so forth. Do not skip levels, as this may confuse accessibility devices.
- Graphics
 - Graphic should be captioned as follows: Author, Title (hotlinked where appropriate). Note file type and copyright information in caption, if needed, otherwise in metadata.
 - Graphics citations should be right-justified, unless the citation immediately follows a title or description of the graphic, in which case the caption with citation should be left-justified at the left margin of the graphic.

- To improve accessibility, alternate text should be entered for all graphics, even if a caption is used. The alternative text should describe visual aspects of the graphic rather than merely repeating its title or caption.
 - Body Text
 - First level bullets should be the Alexandria default, except in special cases. Second level bullets should be open circles, unless another symbol (or none) is deemed better. Third level bullets should be disks. If you use the unordered list formatting tool along with indenting, these symbols should appear automatically.
 - Quotes that are more than two lines should be placed in blocks. (Shorter quotes can be placed in blocks if desired.) Quote credit should be placed below the block and right-justified, and placed in a smaller font, such as by using superscript.
 - Block quotes should be shaded with the quote tool. The actual quoted text should be in quote marks. The author and citation should be right-justified.
 - Code displayed on pages should use the html *code* tag.
 - Equations should be centred or at least indented. Equations can be entered using the Latex short code pair.
 - If you need formatting beyond the menu choices (e.g. your own html code or CSS settings), see the Advanced Composers learning module.
-

3.5 Style and Format Examples

Introduction

Below are some style and format examples to show you how they will appear in your content. Content may be displayed differently in *edit* versus *preview* mode. Your readers will see the content in preview mode.

Heading Examples

H1 Heading

H2 Heading

H3 Heading

H4 Heading

H5 Heading

H6 Heading

Paragraph Example

This is a short paragraph. Notice how there is a small amount of spacing after each paragraph. However, there is less spacing between individual lines in a paragraph. This spacing improves readability.

Text Format Examples

You can display pre-formatted text using the "pre" style. This style is useful for displaying indented text.

```
1 indent space
2 indent spaces
3 indent spaces
```

It uses a monospaced-font by default, so that an "i" is the same width as an "m".

```
iiiiiiiiiii (ten "i"s)
mmmmmmmmm (ten "m"s)
```

This text is bold.

This text is italicized.

List Examples

The following is an unordered list (3 levels):

- Fruits
 - Apples
 - Macintosh
 - Fuji
 - Oranges
 - Bananas
- Vegetables
 - Peas
 - Carrots
 - Beans

The following is an ordered list:

1. Kilo
2. Mega
3. Giga
4. Tera

3.6 Copying and Pasting Caveats

A quick way to create content in the Alexandria Repository is to copy content from another source, such as a MS Word document or other web page, and then to paste it into an Alexandria Learning Module. This works a lot better if you keep some potential issues in mind. Prevention can reduce about 2/3s of the issues, and a few techniques can remedy the other third.

Formatting Problems

The biggest problem is that simple copying and pasting retains much of the original formatting. While that may sound fantastic, it can create many problems. One issue is that the fonts of pasted content may be different than natively-typed content, resulting in an inconsistent look. Another problem is that this formatting will override the default formatting used in generating ePubs and PDFs, sometimes resulting in some really horrible, awful-looking results. Undesired formatting can be cleaned up in Text mode, but this is quite tedious and time-consuming for large amounts of content.

The solution is to use the "T" clipboard tool to paste the content without formatting, e.g. as plain text. Adding some formatting afterwards is typically much less work than removing formatting.

Example of result of pasting raw text upon ePub heading formatting: headings are absurdly large for page size (see below image):

quantum approach to express chemical reactions. Max Planck then utilized a quantum approach to express energy levels in photons being edited from a hot object.

Motivation and Applications

An important motivation for thermodynamics was to understand how to make engines more efficient, and what the maximum efficiency for engines could be. Another application is to express the energy involved in chemical reactions.

Popular Definition of Energy

When most people refer to energy, they mean the amount of energy in a substance such as coal or petroleum that can be transformed into useful work. Or for example, they are referring to electric energy such as kiloWatt hours. For example, a liter of gasoline can be combusted to power an automobile to drive uphill for several kilometers.

Physics Definition of Energy

Below is an example of the effect raw content pasting has upon the generated PDF: subsection headlines

are sometimes larger than section headlines.

4.4 Energy Balance of the Earth

4.4 Energy Balance of the Earth Sources of Energy

Another result of raw content pasting upon PDF: subheadings are larger than headings

Below is an example of the pasted raw content as seen in Text mode. There is clearly lots of style formatting. This formatting code must *all* be removed for the content to display properly.

```

<h2>Characteristics of the Earth's Atmosphere</h2>
<p style="border: 0px; margin-bottom: 1.714285714rem; outline: 0px; padding: 0px; vertical-align: baseline; line-height: 1.714285714; color: #4b4b4b;">The Earth's atmosphere, at its surface, is chiefly composed of 78% Nitrogen, 21% Oxygen (19), 1% Argon and trace amounts of other gasses such as water vapor, carbon dioxide and methane. (Source: <a style="border: 0px; font-family: inherit; font-style: inherit; margin: 0px; padding: 0px; vertical-align: baseline; color: #21759b;" href="http://www.srh.noaa.gov/jetstream/atmos/atmos_intro.html">NOAA</a>).'</p>

```

Undesired formatting as seen in text mode requiring clean-up

Image Problems

When you copy and paste images, it may seem that those images are being copied into the Alexandria Media Library. The images show up fine in the Learning Module, and clicking on the image edit button shows nothing astray. However, those images might actually still reside on an external server. So of there is ever a problem with that server, or if the images are moved or removed, your images will no longer display in your Alexandria content. How can you check? In view move, right-click (or control-click) on the image and view its URL. If the URL is for an external domain, then you need to get a license-appropriate copy of that image to upload to Alexandria.

If the URL is for the Alexandria Repository domain, then you will usually be OK, but sometimes this is still just a pointer to an external source even if the image seems to appear in the Media Library. It is always best to review your content before you need it, such as in a few weeks before it is assigned to students.

3.7 Cleaning up bad formatting

Introduction

You copy-and-paste some content into Alexandria. Perhaps a plentiful amount lot of content. Now it just doesn't look right. In fact, it may be look downright horrible, especially in an eBook. You have looked at the content in mode Text mode, and all of the code looks bewildering. Don't panic! The good news is that this can all be fixed.

Clean-Up Strategies and Tips

A few clever strategies and techniques often can take much of the pain out of fixing pasted content formatting. (By this point, we assume the content has already been pasted and saved.) You might get lucky, and in some cases it is quite easy to fix. In other cases, you may have to go line-by-line through text mode to clean it up. Even in the worst case scenarios, you will usually see a pattern that will make clean-up a lot easier-still tedious, yes, but much more manageable and less cryptic.

Chances are that the content contains some undesired hidden formatting codes. Here is what you can do about it.

1. The best approach is if you can clear out the originally-pasted content and re-paste it, but this time using the *paste-as-text* tool (T clipboard). However, *you will have to re-do any changes* to the pasted content after using this method. So you might wish to consider the next method if you need to preserve those changes.
2. View the content in text mode. Find your text to fix. Look for undesired formatting html codes such as DIVs. Carefully remove that code while leaving the content and desired formatting code. Generally acceptable formatting code includes UL, OL, links, images and short codes. Problematic codes include DIV, SPAN, STYLE= (and anything following STYLE= in quotes).
3. If the same block of problematic formatting code is frequently repeated, conducting a find on that block can make elimination and replacement go much faster.

Example 1-div

Div codes usually engulf larger blocks of text, such as one or more paragraphs.

```
<div style = "...">My text I want to keep.</div>
```

So you want to cut out the

```
<div style = "..."> and </div>
```

and keep the

My text I want to keep.

Example 2-span

Span codes are often used to style small blocks of content, such as words or phrases.

My text Iwant to keep.

So you want to keep the:

My text I

cut out the

``

keep the

want

cut out the

``

and keep the

to keep.

Troublesome style codes

Here are the demonic style types that are likely culprits to your formatting problems:

- font
- font-family
- font-style
- font-size.

Caveat

You may wish to keep or add some style elements that will not harm anything. Examples include:

- align
- text-align
- tables
- some custom coloration
- images, img class
- and caption id.

Short Codes

Generally anything in short codes, e.g. [latex], should be kept.

4

Embedding Media and Special Contents

- [4.1 Introduction to Embedding](#)
 - [4.2 Embedding Images](#)
 - [4.2.1 Creating Galleries](#)
 - [4.3 Uploading and Embedding Videos](#)
 - [4.3.1 Uploading Videos to the Alexandria Media Library](#)
 - [4.3.2 YouTube and Other External Video Locations](#)
 - [4.4 Embedding PDFs and Other Documents](#)
 - [4.5 Embedding and Formatting Mathematics](#)
 - [4.6 An Embedding Alternative \(iframes shortcode\)](#)
 - [4.7 Formatting and Embedding Source Code](#)
 - [4.8 Finding Creative Commons Graphics](#)
 - [4.9 Creating Simple Tables](#)
 - [4.10 Inserting Links to Alexandria Content](#)
 - [4.11 Integrating Alexandria into Moodle \(LTI\)](#)
-

4.1 Introduction to Embedding

Many different types of media can be embedded into Alexandria Learning Modules. Make sure only to use media for which you have a suitable license, such as Creative Commons licensed works, preferably media that can be re-used by others.

There are several approaches to embedding special contents. Which is best depends on the type of contents. The following is a summary.

1. **Images, PDFs and other documents:** click on the "Add Media" button to add media from the Alexandria Media Library, or upload new images to the Library and add them from there.
2. **Videos** (*preferred* approach): store media into the Alexandria Media Library, and then embed that media into the Learning Module using the Add Media Video button. This ensures that the video is always available, regardless of the status of the original video source.
3. **Interactives** (*preferred* approach): This type includes simulations and other interactive media. Upload a zipped file of the interactive to the Alexandria Media Library. Then go to the Interactives menu and choose the Add New item. Select the zipped file you just uploaded. So even if the original source is no longer available, the interactive still runs.
4. **Videos and Interactives** (*alternative* approach): embed the source URL of a video or interactive. This approach is discouraged due to its dependency upon external media availability, but may have to be used if a vital video cannot be downloaded for inclusion in the Alexandria Media Library.
5. **Math:** Alexandria formatting allows for subscripts, superscripts and some special symbols. However, for complex equations, you can use LaTeX.

Style reminders:

- Graphic caption: Author, Title (hotlinked). Note file type and copyright information in caption, if needed, otherwise in metadata.
- Graphics citations should be right-justified, unless the citation immediately follows a title or description of the graphic, in which case it should be left-justified at the left margin of the graphic.
- To improve accessibility, include alternative text.

Note: do NOT remove an image from the Media Library unless you also wish to remove it from modules and syllabi where the image has been inserted. Removing the image from the media library will also remove it from all inserted instances!

File names should avoid spaces, colons and slashes in all cases. File names should also avoid periods except for one before the file type extension. E.g. "my great\wonderful image.file.jpg" should be renamed as: "my_great_wonderful-image_file.jpg" or something along those lines.

4.2 Embedding Images

Image Types

Alexandria can handle PNGs, JPEGs, GIFs and some other image formats. The *PNG* format is well suited for many types of graphics and is the default when creating certain graphics on OSX such as screenshots. Most newer versions of MS Windows can view PNGs, although some older versions cannot.

JPEGs (or *JPGs*) are well-suited for photographs and offer the benefit of compression. This allows for reduced file size and faster loading. They also offer a wide range of colours.

GIFs are well-suited for line drawings with basic colours, as well as simple animations (known as animated GIFs), although the PNG format handles these sufficiently. GIFs are not well-suited to display a rich range of colors.

Notes: In order to preserve animation, please use the "Full Size" image setting for animated GIFs (see below). For medium and other sizes, animated GIFs might only show a static image. Also, if looping is desired, animated GIFs should be generated to include automatic looping. If user control over looping is desired, an interactive should be created.

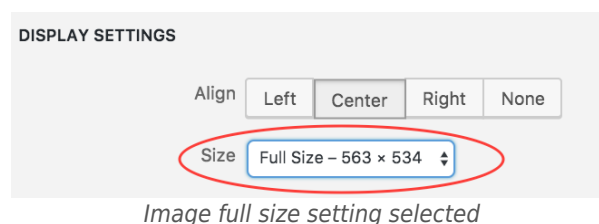


Image full size setting selected

Image Sources

Images can be embedded from several sources:

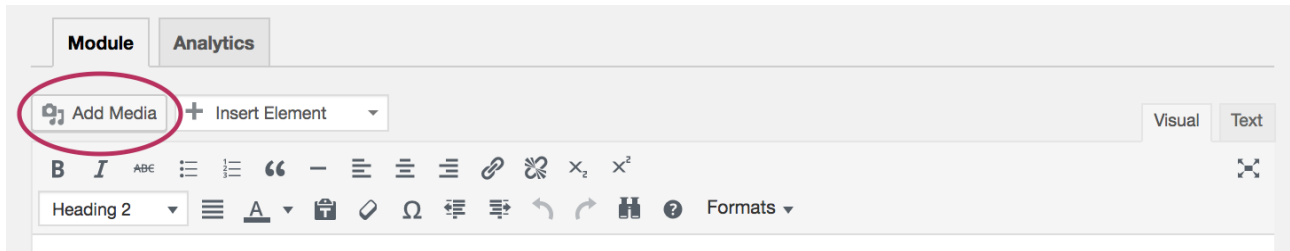
- Existing images from the Alexandria Media Library (a preferred approach)
- Images you upload to the Alexandria Media Library (also a preferred approach)
- Using a URL from an external source (problematic if the source goes offline or the URL gets changed); also be warned that doing so might violate the source site's terms of service.

Embedding an Image

To begin the process of adding an image, first upload the image to the Alexandria library by choosing the "Add new" choice in the Media menu (left sidebar while in edit mode). There will be a brief "crunching" message, and then you will see a link to edit the graphic. (Conversely, find the image record in the Media Library).

Add alternative text, license information and other metadata, and update the record. When ready to embed the image, click on the "Add Media" button above the editing toolbar (see below) and select your

image.



Add Media button

Alternatively, you can just click on the Add Media button to both upload and embed an image, but take extra care to remember to add the metadata.

Improving Performance

For large photographic images, PNG files are often much larger than compressed JPEGs and take longer for users to load, especially on low bandwidth connections. To improve Alexandria performance, use JPEGs instead of PNGs for large photograph files.

Also, you may wish to reduce the size or resolution of very large photographic files, prior to uploading, to reduce load time. Print quality resolution is not required for viewing on computer screens.

Other considerations

- Reminder: after uploading an image, please record the source and license in the metadata.
- Avoid merely linking to external URLs, since those images can disappear or their URLs can change.

Resizing Photos & Custom Sizing

Alexandria provides several preset image sizes: full size, large, medium and thumbnail. Note that thumbnail is not merely smaller, but also cropped into a square shape, regardless of the original proportionality of dimensions.

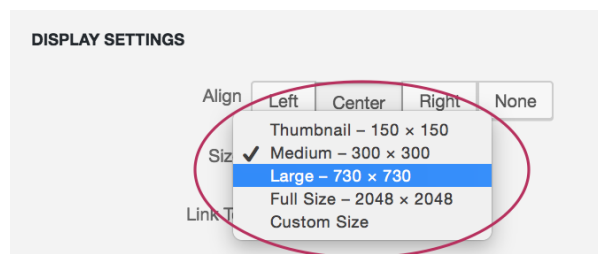


Image display size choices

Alexandria allows to you set a custom size in two ways. First you can do it in the image editing box (click pencil icon shown in red circle, below, to access image editing). You can also simply drag a corner of the image to resize it, such as the lower right corner shown in the red rectangle (below). Note that the

resolution sometimes becomes degraded when resizing an image. If that is the case, then it is best to use the standard *large* size.



Image editing button (red circle); image resizing point (red rectangle)

4.2.1 Creating Galleries

What Are Galleries?

Galleries group together related graphics. Alexandria provides the option to create and embed a gallery when using the "Add Media" feature. Although, any items in the media library can be included in a gallery, media other than images and animated gifs may not display well.

Creating a Gallery

To create a gallery, click the Add Media button as usual. Then in the resulting dialog box, click on the "Create Gallery" link. Include at least one graphic (you can add additional graphics later).

You can specify the number of columns in the gallery. This can help target the visual appearance of a gallery towards its purpose. For example, if you have four graphics, you can arrange them all in a single row to emphasize a series or progression, or in a 2 by 2 arrangement to encourage exploration. (You can change this setting later).

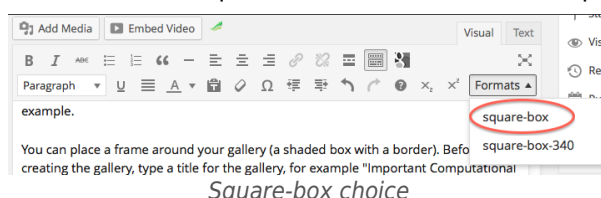
When you view the gallery in *edit* mode, it is not in its final form. You should preview the gallery to see how it is displayed for the viewer. Then, when you move the mouse over each graphic, its caption will appear. Click on the graphic to see the full-sized image and long captions.

The gallery feature can be used "as is", or you can add some additional formatting to label or make the gallery more distinctive. The following instructions provide an example.

"Framing" Your Gallery

You can place a frame around your gallery (a shaded box with a border) by using the following procedure:

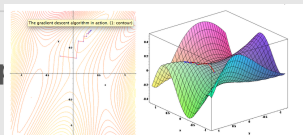
1. Before creating the gallery, type a title for the gallery, such as "Fascinating Computational Science Graphics" (see below).
2. Then hit the Return key several times.
3. Then highlight just the text and choose "square-box" under the Formats pulldown menu.



Square-box choice

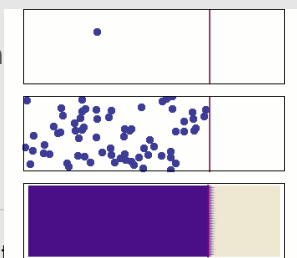
4. Hit the return key a few times, then highlight the text again, and click the bold button. The result will be a shaded box with your title (see below).

Imj

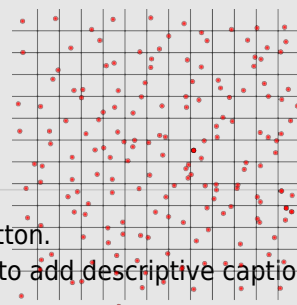


(https://www.alexandriarepository.org/media/gradient_descent_contour_image0)
Gradient descent contour image

Scien



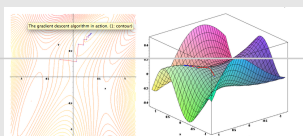
(<https://www.alexandriarepository.org/media/diffusionmicromacro-2>)
Diffusion



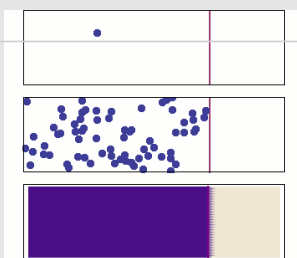
(<https://www.alexandriarepository.org/media/hierarchy>)
Hierarchy of diffusion models

5. Now place the cursor below the title and click the Add Media button.

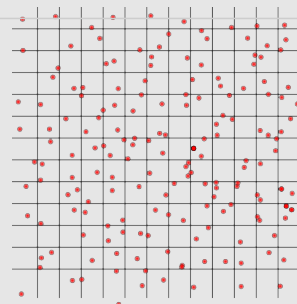
6. Chose create New Gallery, and add desired graphics. Make sure to add descriptive captions (you can edit them later).



(https://www.alexandriarepository.org/media/gradient_descent_contour_image0)
Gradient descent contour image



(<https://www.alexandriarepository.org/media/diffusionmicromacro-2>)
Diffusion



(<https://www.alexandriarepository.org/media/hierarchy>)
Hierarchy of diffusion models

You should see arranged graphics in the shaded box. Make sure to preview your module to see how the gallery will appear to users. To see your captions in preview mode, move the mouse over a particular image. If the caption is

long or the graphic rectangular, clicking on the image will allow the audience to see the entire image and full caption.

Gallery can only contain items uploaded to the Media Library. Displaying video in the Gallery format may be difficult. However, animated GIFs (such as in the Diffusion graphic above) can provide video-like effects.

4.3

Uploading and Embedding Videos

Introduction

There are two steps to embedding videos.

1. A source must be obtained.
2. A reference to that media must be placed into your Learning Module so that users can interact with it as intended.

Sources and Uploading

You are strongly encouraged to obtain a copy of the video file and [upload it to the Alexandria Media Library](#), instead of merely linking to an external site such as Youtube. It is much better to upload video than merely using a link, in case the linked video gets moved or is deleted. Ensure that you have permission to use the video, or you may be engaging in a copyright violation.

Alternatively, you can use a URL link or embedding code. Ensure that viewers have sufficient access to view your video from Alexandria. This should be tested by a different user than yourself. Also, make sure that Alexandria viewers will have internet access to that video. Sources that sometimes go offline are unsuitable.

Embedding

There are several methods of embedding. The preferred method is to store videos in the Alexandria Media Library and then insert media from there into content. A less desirable approach is embed Youtube and other externally-hosted media by placing their URLs into Alexandria content. A final method for sources not otherwise supported is to use iframes short codes.

Preferred Video Types

It is preferred to upload an MP4 file, then also a WEbM file, so that most browsers are covered.

4.3.1 Uploading Videos to the Alexandria Media Library

(recommended)

The following procedure should be followed for uploading videos to Alexandria.

Required Video Processing Software

The following procedure requires "Miro Video Converter", which you can download from: [CNET Miro download](http://download.cnet.com/Miro-Video-Converter/3000-2194_4-75179194.html) (http://download.cnet.com/Miro-Video-Converter/3000-2194_4-75179194.html).

Encode The Videos

You will first need to encode your videos into appropriate formats. This will also process the videos to improve their streaming.

1. Launch "Miro Video Converter"
2. Drag and drop your videos (or click "Choose Files")
3. Click "Format" → "Video" → "WebM HD" (aka. VHS)
4. Click "Convert to WebM HD" and wait for the files to be converted
5. Click "Format" → "Video" → "MP4" (aka. Betamax)
6. Click "Convert to MP4" and wait for the files to be converted

Upload The Videos

7. Choose "Add New Media" under the Media Library menu. Chose "Add New Media" under the Media Library menu. Upload the WebM and MP4 pair for each video: <https://www-alexandriarepository.org/wp-admin/media-new.php>
(<https://www.alexandriarepository.org/app/wp-admin/media-new.php>)
8. Make sure to then edit the image record and add metadata.

Use The Videos

9. Go to your desired Learning Module
10. Click "Add Media" and change "All media items" to "Video"
11. Select the video that ends with "webm" and click "Insert into post"
12. Click the 'pencil' icon on the video
13. Click the "mp4" button below "Add alternate sources for maximum HTML5 playback:"
14. Select the "mp4" pair for that video and click "Add Video Source" and then "Update"
15. You are done!

Result

This video should now stream to any browser and even play in the eBooks.

In the future, you will be able to include them in theeBooks and also use analytics on them.

4.3.2 YouTube and Other External Video Locations

YouTube and Other External Video Locations

It is preferred that you contact the author of videos at other locations, such as Youtube, to get a source copy of the video and permission to upload it to Alexandria. However, if this is not possible, and you still wish to use the video, use of the following procedures.

Find your desired video and copy its review URL to your clipboard. You can simply paste the video URL from some sources such as Youtube right into your content. Alexandria will automatically recognize and process the link, and you can see the video in preview mode. Make sure the url contains https instead of http. For this approach, the URL needs to be on a line by itself.

If this does not work, use the frames short codes.

4.4 Embedding PDFs and Other Documents

Introduction

Several types of documents can be embedded into Alexandria syllabi and learning modules, including PDF, DOCX and XLSX formats.

There are two steps to embedding documents. First, upload the document into an appropriate and accessible location on the internet (preferably the Alexandria Media library). Second, place a reference to that media into your Learning Module so that users can interact with it as intended.

Uploading

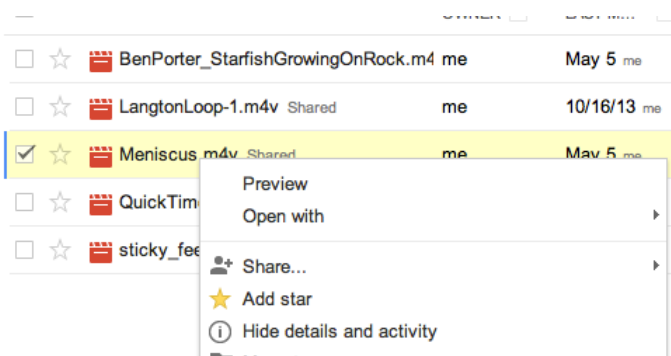
It is better to upload a document to the Alexandria Media library, rather than merely using a link, in case the source document gets moved or is deleted. It is essential that the location of the upload be always available on the internet and have sufficient permissions for Alexandria users to view. Make sure to only upload documents for which you have permission to do so (in terms of copyrights and non-confidentiality).

Alexandria Media Library

Using the Alexandria Media Library is the preferred location for uploading documents, unless you have been instructed otherwise. You can either drag upload the document to the Media library than insert it, or upload via insertion.

Google Drive

You can also upload media to a Google Drive. After uploading the media there, make sure that you have the URL to your Google Drive media. Sign in and open your file directory in Drive. Then control click (or right click) on the desired file name and choose "Sharing..." then "Share".



Copy the link in the "Link to Share" field and keep it ready to paste. You will use this link to embed the document.

Sharing settings

Link to share

```
https://drive.google.com/file/d/0Bz0_PKKD2CDJZUN4bUZkclROcUU/edit?usp=shari
```

Embedding

Several methods of embedding are discussed below.

Add Media button (Alexandria Media Library)

Simply click on the Add Media button to embed most documents from the Alexandria Media Library.

Or you can use the following code:

```
[gview
file="https://www.alexandriarepository.org/wp-content/uploads/2013/06/Wk-7-React
ion-Diffusion.pdf" save="0"]
```

Make sure to replace the URL with your document's URL.

Other Types of Media (iframes short code)

If your document is not in the Alexander Media Library, or the above approaches do not work, try enclosing your URL within iframes short codes. For example:

```
[iframe width="640" height="360"
src="//www.youtube.com/embed/W9o4cQvbShU?feature=player_detailpage"
frameborder="0" allowfullscreen]
```

There are several helpful parameters that can be added to iframe to improve viewing.

- *width* sets the width of the frame containing the embedded media. It can be set to a particular amount of pixels or a percentage.
- *height* sets the height of the frame containing the embedded media.
- *overflow* allows scrolling if it is set to "hidden".

Use the parameters by typing the name of the parameter then the equals sign, then the parameter in quotes, all within the frame short code, e.g.

```
overflow="hidden"
```

Google Documents

Use frames short codes. Paste your media link into the "URL or Field Name" field. It will be something similar to:

```
https://drive.google.com/file/d/0Bz0_PKKD2CDJZUN4bUZkclROcUU/edit?usp=sharing
```


If there are problems with the display format, and if the end of the url contains "edit?usp=sharing", replace that text with "preview".

Make sure to test Google Drive media with a user password to ensure that all users can see that media.

When Nothing Else Works

Even frames will not work for some types of documents. For these documents, try to embed them by clicking the Add Media button. Although the document itself will not appear, sometimes there will be a link to the document, and it can be read in its own browser window.

If that still does not work, a link to a readable source may be the only remaining option. Make sure to open up external links in their own window.

Downloadable Documents

Documents uploaded to Alexandria and then inserted into Alexandria learning modules are downloadable. Alexandria now includes a download link below such documents. (See below for example.)

This is a document download test.

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Research Article

A New Empirical Constraint on the Prevalence of Technological Species in the Universe

A. Frank¹ and W.T. Sullivan III²

Abstract

In this article, we address the cosmic frequency of technological species. Recent advances in exoplanet studies provide strong constraints on all astrophysical terms in the Drake equation. Using these and modifying the form and intent of the Drake equation, we set a firm lower bound on the probability that one or more technological species have evolved anywhere and at any time in the history of the observable Universe. We find that as long as the probability that a habitable zone planet develops a technological species is larger than $\sim 10^{-24}$, humanity is not the only time technological intelligence has evolved. This constraint has important scientific and philosophical consequences. Key Words: Life—Intelligence—Extraterrestrial life. Astrobiology 2016, xxx–xxx.

1. Introduction

THE HISTORY of physics has shown that fundamental insights into a problem can sometimes be acquired by setting order-of-magnitude estimates of scales, limits, and boundaries via combinations of constants or parameters. This approach can be particularly effective for problems in which few empirically derived constraints are available, such as the derivation of the quantum gravitational Planck length, that is, $l_p = (\hbar G/c^3)^{1/2}$, or early studies using the cosmic density parameter ($\Omega = \rho/\rho_c$). Here we adopt such an approach to address an overarching goal of astrobiology: understanding if humanity is “alone” (Sullivan and Baross, 2007; Impey *et al.*, 2012). One way of framing this question is to ask if other technology-building species exist now, or have ever existed at any time in the Universe. Given that we have only

2. Method

Our approach asks a very different question from the usual treatment of the subject. Standard astrobiological discussions of intelligent life focus on how many technological species *currently* exist with which we might communicate (Vakoch and Dowd, 2015). But rather than asking whether we are *now* alone, we ask whether we are the only technological species that has *ever* arisen. Such an approach allows us to set limits on what might be called the “cosmic archaeological question”: How often in the history of the Universe has evolution ever led to a technological species, whether short- or long-lived? As we shall show, providing constraints on an answer to this question has profound philosophical and practical implications. We first modify the Drake equation in order to address

[Download \(PDF, 156KB\)](#)

Image of embedded PDF with download link

4.5 Embedding and Formatting Mathematics

There are two ways to enter mathematics, such as Greek letters and equations.

Standard formatting

The first approach is to use standard formatting. The text formatting toolbar has tools for superscripts and subscripts. The Ω tool allows you to enter a wide range of special symbols (see below).

Special character

| | | | | | | | | | | | | | | | | | | | | | | | | |
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| Ê | Ë | Ì | Í | Î | Ï | Ð | Ñ | Ò | Ó | Ô | Õ | Ö | Ø | Œ | Š | Ù | Ú | Û | Ü | Ý | ÿ | Þ | à | á |
| â | ã | ä | å | æ | ç | è | é | ê | ë | ì | í | î | ï | ð | ñ | ò | ó | ô | õ | ö | ø | œ | š | ù |
| ú | û | ü | ý | þ | ÿ | A | B | Γ | Δ | E | Z | H | Θ | I | K | Λ | M | N | Ξ | O | Π | P | Σ | T |
| Υ | Φ | X | Ψ | Ω | α | β | γ | δ | ε | ζ | η | θ | ι | κ | λ | μ | ν | ξ | ο | π | ρ | ς | σ | τ |
| υ | φ | χ | ψ | ω | κ | ω | ϖ | Υ | ϕ | ς | ← | ↑ | → | ↓ | ↔ | ↵ | ⇐ | ⇑ | ⇒ | ⇓ | ↔ | ∴ | ∵ | ∶ |
| ϵ | ς | ∶ | ⊕ | ⊗ | ⊥ | · | Γ | γ | L | J | < | > | ◇ | ♣ | ♠ | ♥ | ♦ | | | | | | | |

L^AT_EX

If standard formatting is too limited for your needs, the second approach is to use LaTeX.

LaTeX is a mark-up language especially designed to express mathematics. One can write formulas, papers, chapters and even whole books in LaTeX. Unfortunately, LaTeX does not provide the interactivity that you have grown accustomed to on Alexandria. Fortunately, it is possible to have the best of both worlds!

You can embed LaTeX into Alexandria by using the following pair of short codes:

[latex]...[/latex].

For example:

[latex]\frac{n_1}{n_2} = \frac{\theta_s}{\theta_1}[/latex]

would produce:

$$\frac{n_1}{n_2} = \frac{\theta_1}{\theta_2} .$$

There may be issues with some embedded LaTeX, so it is advisable to test the output (in Preview mode) before publishing it.

You can hand-code LaTeX. Note that you sometimes cannot simply copy and past from any LaTeX editor. You should enter the short codes line by line, for example, but you may find it faster to use an editor. There are several editors to choose from. Examples include:

LaTeX editors:

- Daum Equation Editor (Mac App store version or [Chrome version](https://chrome.google.com/webstore/detail/daum-equation-editor/dinfmicelliomokeofbocegmacmagjhe?hl=en) (<https://chrome.google.com/webstore/detail/daum-equation-editor/dinfmicelliomokeofbocegmacmagjhe?hl=en>)). Provides tabs full of expressions you can literally click and insert. Then you can copy and past your LaTeX into your WordPress content.
- TeX equation editor ([Chrome version](https://chrome.google.com/webstore/detail/tex-equation-editor/eggdddnmjoomglnkjhpcnjbieiojini?hl=en) (<https://chrome.google.com/webstore/detail/tex-equation-editor/eggdddnmjoomglnkjhpcnjbieiojini?hl=en>))
- [LaTeX2WP](https://lucatrevisan.wordpress.com/latex-to-wordpress/download/) (<https://lucatrevisan.wordpress.com/latex-to-wordpress/download/>) converts a LaTeX file into something that is ready to be cut and pasted into WordPress. (Last update: 2009).

Caveats

- Sometimes, if you copy LaTeX from another source and paste it into Alexandria, the backslashes will be removed, in which case you will need to put them back to make LaTeX display properly. Sometimes the backslashes *are* preserved, so just be aware of this possibility when proofing.
- Generating eBooks containing a lot of LaTeX can take a really long time. Yet if you are the type of person to have the intelligence, wisdom and fortitude to use LaTeX, then we expect that you also know the old adage "good things come to those who wait."

Resource

Alexandria uses MathJax to interpret and display LaTeX. The following resource contains a list of the many available commands: [TeX Commands Available in MathJax](http://www.onemathematicalcat.org/MathJaxDocumentation/TeXSyntax.htm)

(<http://www.onemathematicalcat.org/MathJaxDocumentation/TeXSyntax.htm>).

Images

A third, albeit less graceful, way is to upload images of equations to the Media Library and insert those images into your content.

4.6 An Embedding Alternative (iframes shortcode)

An Embedding Alternative (iframes shortcode)

If your type of media is not mentioned above, try enclosing your URL within frames short codes. For example, this short code block with parameters:

```
[iframe width="640" height="360"
src="//www.youtube.com/embed/W9o4cQvbShU?feature=player_detailpage" frameborder="0"
allowfullscreen]Your browser does not support iframes.[/iframe]
```

will display:

[Show "Michaelis Menten Explained and Derived - YouTube"](https://www.youtube.com/embed/W9o4cQvbShU?feature=player_detailpage)

([//www.youtube.com/embed/W9o4cQvbShU?feature=player_detailpage](https://www.youtube.com/embed/W9o4cQvbShU?feature=player_detailpage))

The enclosing `/iframe` short code is not required, but can be preceded with explanatory text that may show up in case of a browser error.

There are several helpful parameters that can be added to `iframe` to improve viewing. Use the parameters by typing the name of the parameter, then the equal sign, then the parameter in double quote marks, all within the frame short code.

- *src* specifies the address of the document to embed in the `<iframe>`.
- *height* sets the height of the frame containing the embedded media. Default is "480" (pixels).
- *width* sets the width of the frame containing the embedded media. It can be set to a particular amount of pixels or a percentage. Default is "100%".
- *style* allows to use css to modify the style in the frame (but not necessarily the content itself).
- *overflow* allows scrolling if it is set to "hidden".
- *scrolling* is no longer supported in newer browsers.
- *Sandbox* enables extra restrictions for the content in an `iframe`. *This feature is experimental, so test if it works for you before deploying!* The value of the `sandbox` attribute can either be just `sandbox` (then all restrictions are applied), or a space-separated list of pre-defined values that will REMOVE the particular restrictions. Removable restrictions include:
 - `allow-forms`
 - `allow-pointer-lock`
 - `allow-popups`
 - `allow-same-origin`
 - `allow-scripts`
 - `allow-top-navigation`

Notes:

- Do not insert the source URL as a clickable link. If you copy and paste from the browser bar, either use the T (text) clipboard tool or remove the clickable aspect after inserting.

- Reminder: px means pixels.
 - **Update:** due to a security upgrade, iframe might not work anymore with previously fine sites. You will need to check those on a case-by-case basis. Sites that do not use https will generally no longer work.
 - E.g. this format "//www.youtube.com" used to work, but adding "https:" at the beginning sometimes works better.
-

4.7 Formatting and Embedding Source Code

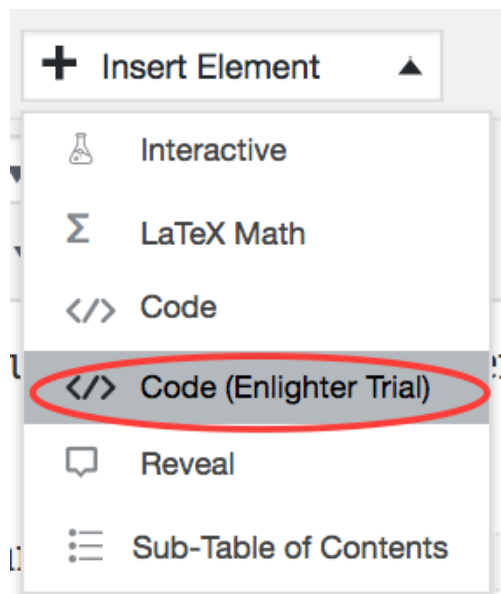
Introduction

Displaying source code often involves special requirements. Source code often needs to appear in a monospaced font to preserve proper spacing and indenting. Language appropriate text colouring improves readability. To format code manually is especially labour-intensive. Fortunately, there exist tools to automate aspects of source code display.

Note: We do not support the use of LaTeX in within source code displays using *any* of these tools. (We have exhaustively tested them all.)

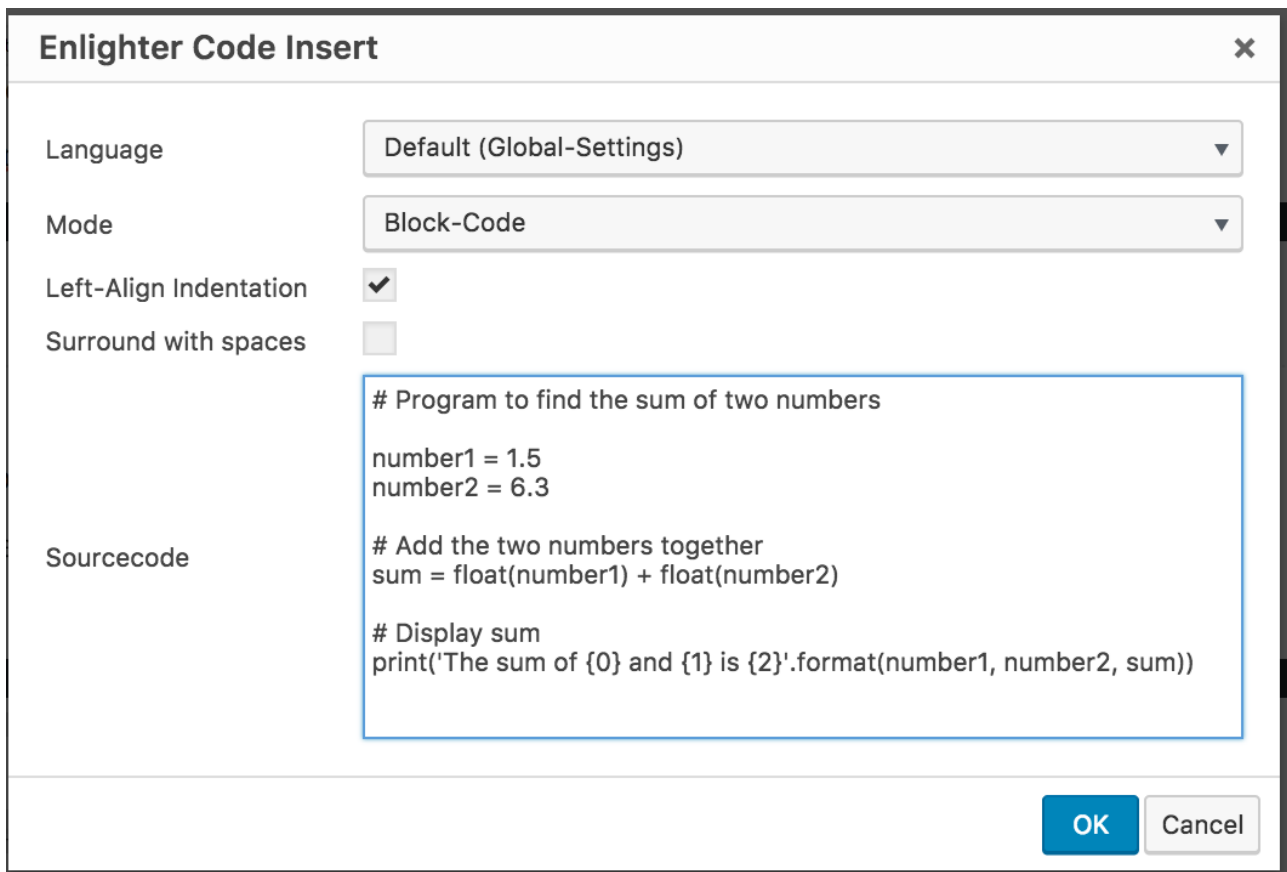
Enlighter (Preferred Tool)

You should use the *Code (Enlighter Trial)* element for displaying code. (Note: the *Code* element has been deprecated.) Enlighter is easy to use, but some of its most useful features require digging slightly deeper to set up. Start by choosing *Code (Enlighter Trial)* in the *Insert Element* menu (see below). Despite its menu label, Enlighter has moved out of the trial phase.



Enlighter Trial item in Insert menu

Once you select the Enlighter element to insert, you will see the *Enlighter Code Insert* dialog box (below). The *Language* menu lets you select from several code languages for enhanced formatting. The *Mode* menu lets you choose Block-Code or Inline-Code mode. Block mode will place the code in its own section, whereas Inline will insert it in ordinary text such as in a paragraph. Choose the mode carefully, because you cannot change it later (although you could simply copy and paste your code into a new Enlighter element (more on this later). Enter your code in the Sourcecode field. You can edit the code later. You will have the option to highlight specific lines of code later.



Enlighter dialog box showing options and code entry.

In block example `print("Hello, World!")` is contained in this sentence. You can edit the text in an inline block but not the language type.

Below is an Enlighter code block. You change change the language and edit the code later if you wish.

Enlighter: Python

```
# Program to find the sum of two numbers
number1 = 1.5
number2 = 6.3

# Add the two numbers together
sum = float(number1) + float(number2)

# Display sum
print('The sum of {0} and {1} is {2}'.format(number1, number2, sum))
```

The Code block will display as shown below.

```
# Program to find the sum of two numbers
```

```
number1 = 1.5
number2 = 6.3
```

```
# Add the two numbers together
sum = float(number1) + float(number2)
```



```
# Display sum
print('The sum of {0} and {1} is {2}'.format(number1, number2, sum))
```


What if you wish to highlight one or more lines? First, click on a blank area of the Enlighter code block. Then click on the pencil "edit" icon of the code block.

Enlighter: Python

```
# Program to find the sum of two numbers
number1 = 1.5
number2 = 6.3

# Add the two numbers together
sum = float(number1) + float(number2)

# Display sum
print('The sum of {0} and {1} is {2}'.format(number1, number2, sum))
```



You will see additional options. For example, you can use different themes. You can also highlight specific lines of code with the *Point out Lines* entry box.

Enlighter Code Settings

✕

| | |
|--------------------------------|--|
| Language | <input type="text" value="Ruby"/> |
| Theme | <input type="text" value="Default (Global-Settings)"/> |
| Show Linenumbers | <input checked="" type="checkbox"/> |
| Point out Lines (e.g. 1,2-6,9) | <input type="text" value="3"/> |
| Linenummer offset (e.g. 5) | <input type="text"/> |
| Codegroup Identifier | <input type="text"/> |
| Codegroup Title | <input type="text"/> |

Enlighter Code Settings dialog box

For example, I pointed out line 3., which you can see highlighted below:

```
# Program to find the sum of two numbers

number1 = 1.5
number2 = 6.3

# Add the two numbers together
sum = float(number1) + float(number2)
```

```
# Display sum
print('The sum of {0} and {1} is {2}'.format(number1, number2, sum))
```

Alternative approach

An alternative, though less desirable approach, is to use the *pre* format. This format tells Alexandria not to reformat the encoded text. It does not save indenting nor number lines, but if the "Add Code" button method does not work, the *pre* method might still display your text. For example, the following short Ruby program can be entered as:

```
# A hello world program
```

```
puts "Hello World \n"
```

```
puts "Done!"
```

Which will display:

```
# A hello world program
```

```
puts "Hello World \n"
```

```
puts "Done!"
```

If you want *pre* code to stand out more, place it in *square-box*, which is available under the *Formats* menu. You can see how well the below example stands out.

```
# A hello world program
puts "Hello World \n"
puts "Done!"
```

Code Tool (Deprecated)

You have likely noticed the *Code* tool in the *Insert Element* menu. It supports more languages than Enlighter, but several users have had problems with the Code tool changing symbols into html or eliminating symbol characters and tags. The Code tool will still be available for use, but we cannot guarantee that it will work as desired, and we are not in a position to fix its problems. If you copy code from another source and paste it into a Code block, you might be able to manually fix some of the special symbols, at least temporarily.

Warning: even if you have fixed the code as desired, things can go awry with it afterwards. Please consider this option as a last resort. I have fixed the below examples several times. *Every* < or > became messed up!

Here is a Ruby Example:

```
# A hello world program
puts "Hello World \n"
puts "Done!"
```

Here is an HTML example:

```
<html>
  <head>
    <title>Welcome to my Page</title>
  </head>
  <body>
    <h1>Welcome!</h1>
    <hr />
    <p>My first paragraph...</p>
    <br />
    <p>My second paragraph...</p>
  </body>
</html>
```

Allowing Users to Run Code On Alexandria

How to Do It

If you wish to run code in Alexandria, you should create an "Interactive", which is essentially an app that can be viewed in a frame or window.

Alternatively, if you cannot create an interactive, you can run code in an offsite web application such as ideone.com (<http://ideone.com>). However, the user will have to enter code into the window, perhaps by using copy and paste or manually typing. You may also need to scroll around to select the language and run the program.

Another alternative is the [w3schools.com](https://www.w3schools.com) (<https://www.w3schools.com>) Try It Yourself editor for certain web-oriented languages, such as HTML, CSS, Javascript, SVG and PHP. You can save your own code and get a URL that points to it. You can use it to create specific exercises with examples that include missing code or code to change.

If you use any of these, make sure the link opens up in its own tab or window.

Warning

- None of these external editors will work when the user is offline, such as when reading an ePub offline.
- They may display advertisements, whose content we do not have control over.

4.8 Finding Creative Commons Graphics

You should ensure that you have sufficient permission to use graphics from external sources. Otherwise copyright problems may arise. Overcome this issue is by using graphics that are available under an open copyright license, such as the Creative Commons license.

How to find and download creative commons graphics

The first step is to search for relevant graphics. For a multi-system search facility for Creative Commons graphics, click [here](http://search.creativecommons.org) (<http://search.creativecommons.org>).

Example: we search for the term "ant". We find a suitable ant photograph on the Flickr site, at this [link](https://www.flickr.com/photos/47000103@N05/8372609585/in/photostream/) (<https://www.flickr.com/photos/47000103@N05/8372609585/in/photostream/>).



Beautiful Red Ant image by Sabriamin M.

There are several different Creative Commons licenses, each with their own restrictions. You should record the applicable license name and follow its restrictions. For example, the above ant graphic is subject to the following license: *Attribution 2.0 Generic (CC BY 2.0)*. When uploading the graphic in the Media Library, make sure to enter the license name in the License metadata field. If there is not a checkbox for the license type, it is best to copy and paste the license name into the field when creating a new license type to ensure the correct license is noted.

In the above example, *CC BY 2.0* license maintains several restrictions that are shown in plain English

below, but you may need to look to the detailed terms for your graphic's particular license to resolve any uncertainties.

Attribution - You must give **appropriate credit** (<https://creativecommons.org/licenses/by/2.0/#>), provide a link to the license, and **indicate if changes were made** (<https://creativecommons.org/licenses/by/2.0/#>). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

So for the *CC BY 2.0* license, we need to give appropriate credit, such as via the photograph's caption, and note any changes that were made. What constitutes a change? Resizing likely does not. Changing the coloration or cropping could constitute a change and should be noted. The license agreement itself provides a few examples. The agreement can be found on the Creative Commons license summary page, to which there is typically a link on the page hosting the original graphic.

Also check the appropriate box in the License metadata section of any Learning Modules containing the graphic.

Reminder: when using Flickr, double-check to make sure if the graphics are really under a Creative Commons license.

Let's populate the table. I start by adding headings in the top row. Then I enter data in the other rows. Note how the header type style is emphasized as compared to the other rows.

I click on the table then use Table Properties in the table tool to check the box for Caption, which creates a special title field, into which I then enter *Fruits and Their Fantastic Colours*.

4.9 Creating Simple Tables

Fruits and Their Fantastic Colours

- 1 Apple Red
- 2 Orange Orange
- 3 Banana Yellow
- 4 Pear Green

New Table Tool!

A new table tool is available to create tables. Simply click on the table tool (circled in image below) and

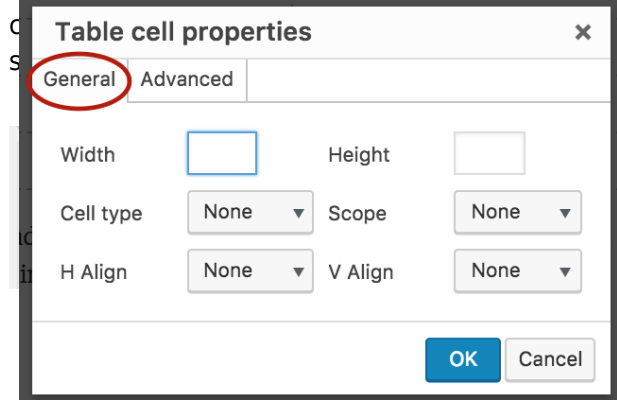
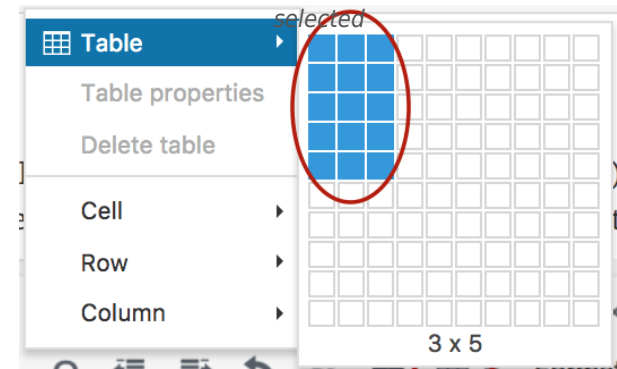


Table cell properties dialog box with General tab selected



3x5 selected to create table

Once the table is created, click on the tool again to

let's add some formatting. I can use the text shading tool and bold tool to format the color text. However, yellow text was too light for the banana colour text, so I can shade the cell of the Banana label to indicate the fruit's real colour. Let's make it even more exiting by shading the cells. We can't do that with the shading tools, but the table tools allows us to do so. First we choose Table cell properties, which will then show the default General tab.

Here we can adjust several parameters, such as *Width* and *Height*. For example, you can enter 50% in width to make the Banana cell half the width of the table. *H Align* and *V Align* are to position text within the cell. *Scope* indicates whether a group of cells should be affected.

For example, I want to create a 3 x 4 table with a header row. So I click on the table tools (circled in the image below) to insert the table.

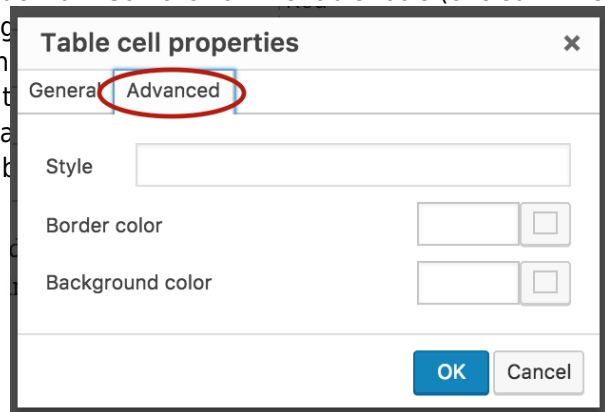
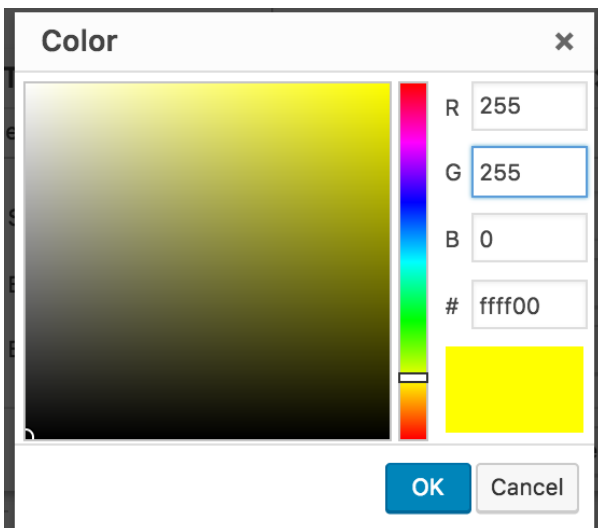


Table cell properties dialog box with Advanced tab selected

To change cell background colour, we select the *Advanced* tab. Despite its intimidating name, the *Advanced* tab really just contains color selectors. We can also manually enter in colours or style information. Since we are changing background colour, we click on the selector pop-up button to the right of the entry box. (Or I could simply type a common colour in the entry box, since most browsers recognize common colour names.)



Yellow color selected for entire cell shading.

Within Background color, we see a style selector. We can enter RGB values, from 0 to 255, where R is the red component, G is green and B is blue. (Yellow is a mixture of pure red and green, so I place the maximum 255 value in both of those boxes to get yellow). Or use the slider to view different palettes, and then click on the desired color within that palette. Or, hexadecimal codes, from 00 up to ff, can be entered in the # box, for each R, G, B component. For example, each "ff" corresponds to the 255 in the R and G boxes.

We can see the result in the table below. The cell with the Banana fruit type is shaded yellow.

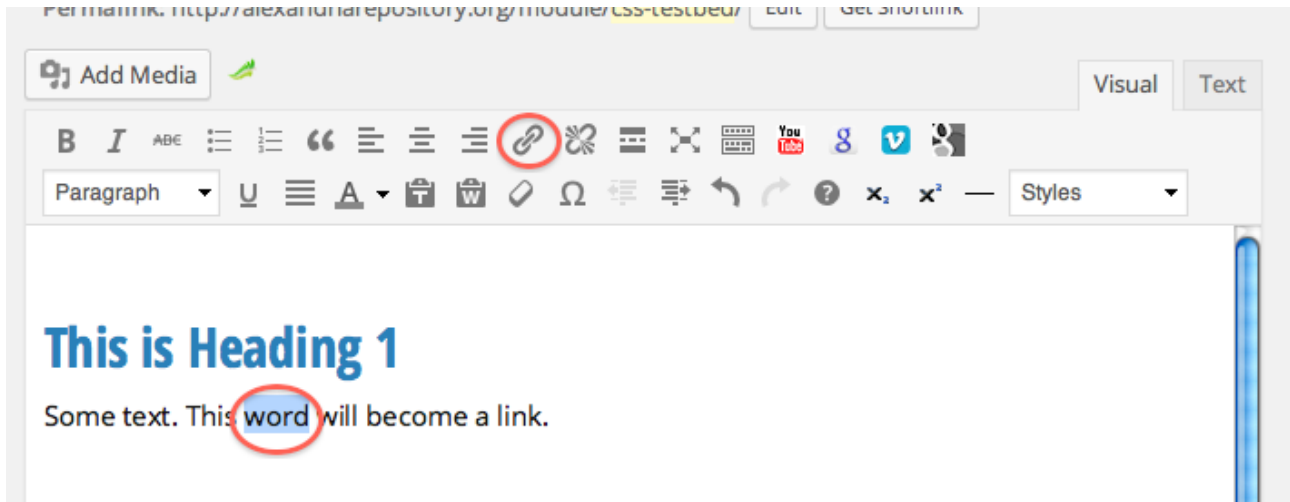
ID FRUIT COLOR

- 1 Apple **Red**
- 2 Orange **Orange**
- 3 **Banana** **Yellow**
- 4 Pear **Green**

[/hide]

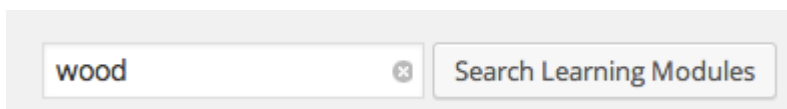
4.10 Inserting Links to Alexandria Content

Inserting Links to Alexandria Content involves several steps. First, select the text that you want for the link and then click the "insert/edit link" button.



Inserting a link in Alexandria

Then search for the existing content:



Learning module search feature

The result should be a list of found modules (see example below). Choose one, then get the permanent link for it.

Learning Modules [Add New](#) Search results for "wood"

All (1,542) | [Published \(596\)](#) | [Drafts \(945\)](#) | [Pending \(1\)](#) | [Trash \(9\)](#)

[Bulk Actions](#) [Apply](#) [Show all dates](#) [View all categories](#)

| <input type="checkbox"/> | Title | Categories | Tags |
|--------------------------|--|---------------|------|
| <input type="checkbox"/> | Copyright and Acknowledgements | Uncategorized | — |
| <input type="checkbox"/> | Factors influencing [rate of and net flux in] diffusion (derivative) - Draft | Uncategorized | — |
| <input type="checkbox"/> | Case 2: Selectively permeable membrane that is permeable only to H2O. | Uncategorized | — |
| <input type="checkbox"/> | Ion pumps 1 Edit Quick Edit Trash View Purge from cache | Uncategorized | — |

4.11 Integrating Alexandria into Moodle (LTI)

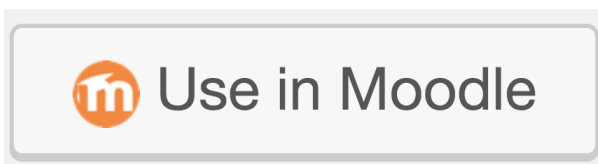
Linking to or Embedding Alexandria into Moodle

Introduction

Alexandria now provides integration with Moodle at Monash. This means that you can now embed Alexandria content straight into Moodle as an activity or resource. Therefore, you can have the best of both worlds, that is, a streamlined Moodle learning experience, while still using Alexandria for re-usable content that can be downloaded as ePub and PDF e-books.

Procedure

To use this feature, click one of the orange stylised Moodle 'm' / 'Use in Moodle' buttons, which can be found throughout Alexandria, attached to Syllabi and Learning Modules.




Use in Moodle button

This will open a dialog with step-by-step instructions as to how to use the content in Moodle. You can embed or link to a Syllabus, Learning Module or a specific section within a Syllabus (e.g. Week 3 of your unit). Make sure to click on either the "Embedded" or "As Link" button beneath "**Choose Usage:**" to get the specific instructions. Then follow the steps shown. It's that simple!


Use Syllabus in Moodle

Choose usage:


Embedded



As Link



Then follow these steps in Moodle:

1. Click **"Turn editing on"**
2. Click **"+ Add an activity or resource"** in the respective section (e.g. Week 1)
3. Select the  **External tool** option (under "Activities") and click **"Add"**
4. Enter an **"Activity name"**
5. Click **"External tool type"** and select **"Alexandria Repository"**
6. Click **"Show more..."**
7. Uncheck **"Display activity name when launched"** (optional, but recommended)
8. Copy & paste the following text into the **"Custom parameters"** field:

```
url=https://www.alexandriarepository.org/syllabus/simulation-with-cell
```
9. Click **"Save and return to unit"** or **"Save and display"**

Close

Instructions for embedding Alexandria content into Moodle

5 Adding Interactivity

[5.1 Interactives](#)

[5.1.1 Interactives Tutorial](#)

[5.2 Reveal/Pop-up feature for hints and answers](#)

5.1 Interactives

Introduction

Interactives allow authors to run some types of programs within Alexandria, so that they run even the user is offline. Such programs can allow the user to interact with them, hence their name interactives. Examples include cellular automata, generative art programs and rich quizzes, but many other types are possible.

Simulations

It is possible to embed some types of simulations. Also, Insight Maker simulations can be embedded by a number of means. Other platforms such as BookWidgets also generate files that can be used as interactives.

Preferred Method of Embedding Interactives

The preferred means to embed interactives is to compress the simulation into a zip archive and upload it to the Alexandria Media Library. (Zip files are more secure than plain files.) Then an [interactive #] short code inserted in the learning module can be used to display it.

Alternative Method of Embedding Interactives

An alternative way to embed an interactive is to use an iframes short code:

```
[iframe SRC="https://InsightMaker.com/insight/4694/embed" title="Insight!!!"]
```

Https secure socket is required for this approach. This method will only work if the user has an active connection and if the URL is working.

Insight Maker Parameters

For Insight Maker interactives, use parameters in the source URL to determine how Insight Maker will appear:

- Top Bar: the top bar contains the run button, zoom menu and scratchpad. If you hide the top bar, the user may not be able to run the simulation, but they can see its initial state.
 - Show the top bar with: "topBar=1"
 - Hide the top bar with: "topBar=0"
- Side Bar: the side bar contains user parameter choice controls, as well as a simulation description and other metadata. It appears on the righthand side of the screen.
 - Show the top bar with: sideBar=1

- Hide the top bar with:
- Zoom:
 - Fill the window with the simulation: "zoom=1" (or any other positive number.
 - Show the simulation at original size with: "zoom=0"

Below is an example of a short code using some of these parameters:

```
[iframe SRC="https://InsightMaker.com/insight/4694/embed?topBar=1&sideBar=1&zoom=1"  
TITLE="Embedded Insight" width=600 height=420]
```

Code Examples

Use the inbuilt syntax highlighter for code examples.

5.1.1 Interactives Tutorial

Introduction

Alexandria Interactives are way of inserting self-contained HTML5 web-applications ("apps") into your Alexandria Learning Module. Provided you don't rely upon any external resources, your Interactives should function as expected when exported as part of an EPUB 3 format eBook. Interactives are great for sample code demonstrations, 3D Model viewers, and many other applications that can be built using HTML5 technologies.

Advice Before Your Start

If you wish to maintain compatibility with EPUB format eBooks, you must adhere to the following restrictions:

1. **Don't make use of plugins (such as flash).** ePubs are generally viewed on many kinds of mobile devices, many of which (including all Apple devices) do not support these plugins. Even though the plugin will appear to work in a web browser, it will fail when exported as part of an ePub.
2. **Don't request external resources.** Requesting resources from another page (images from another domain, etc.) is not supported by many eBook readers. All of these requests will fail and your interactive will be broken. As such, all of your resources should be contained within the ZIP Archive you upload, and you should only use relative paths to access them.

Procedure for Uploading And Setting Up An Interactive

To create a simple, parameterless interactive:

1. **Zip up your webpage and all needed resources.** Avoid using strange filenames ('.', '..', '\$', etc.) as these may be wrongly interpreted as a security risk, and prevent your ZIP file from being accepted.
2. **Upload your ZIP file** to the *Media Library*.
3. Hover over the **Interactives menu** in the left sidebar, and click in the **Add New** choice in the sub-menu. Find and choose your Zipped file.
4. **Enter the 'Main HTML File' field.** You should enter the exact path to the file in the zip archive. For example, if you zipped up a folder called 'interactive', then you likely want 'interactive/index.html' as the value for your 'Main HTML File' field.
5. **Press the 'Update' button on the right hand side.** This will begin extraction of the ZIP archive to Alexandria's servers. A progress bar will be displayed for you to track the progress of the extraction. When it is complete, your interactive can be inserted and used in any module via the 'Add Interactive' button above the text editor.
6. In Learning Module edit view, choose Interactive from the *Insert Element* menu and choose your Interactive.

Interactive fields

ZIP Archive ✘ No file selected.
 The zip archive of your interactive. For more details on how to create a compatible ZIP archive, see the tutorial below.

Main HTML File
 HTML entry point within the zip archive, e.g. "index.html" or "myinteractive/index.html". Max 100 characters.

Width
 In-Page Width (in px or %, e.g 640px or 100%)

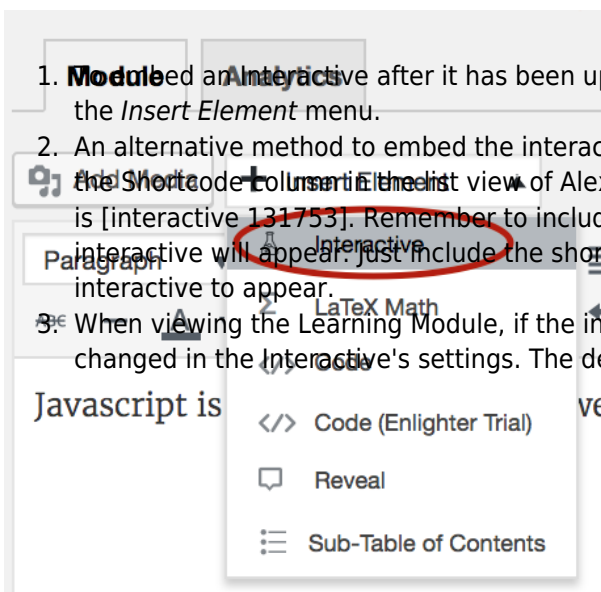
Height
 In-Page Height ("auto" or a dimension in px or %, e.g. 480px or 100%)

Poster Image ✘ No file selected.
 The poster image to use when the interactive is exported as part of an ePub format eBook

Parameters

Interactive dialog box

Embedding an Interactive



Interactives item in Insert Element menu

1. **Module** Embed an Interactive after it has been uploaded and set up, choose the *Interactive* item from the *Insert Element* menu.
2. An alternative method to embed the interactive is to enter it's short code, which can be found in the Shortcode column in the list view of Alexandria Interactives. In the image below, the shortcode is [interactive 131753]. Remember to include the correct number, or else the wrong (or no) interactive will appear. Just include the shortcode in the Learning Module where you would like the interactive to appear.
3. When viewing the Learning Module, if the interactive size is not optimal, height or width can be changed in the Interactive's settings. The default is 100% width.

| <input type="checkbox"/> Title | Byline | Date | Shortcode |
|--|--------------------|--|----------------------|
| <input type="checkbox"/> My Interactive | Alexandria Support | Published 17 mins ago | [interactive 131753] |

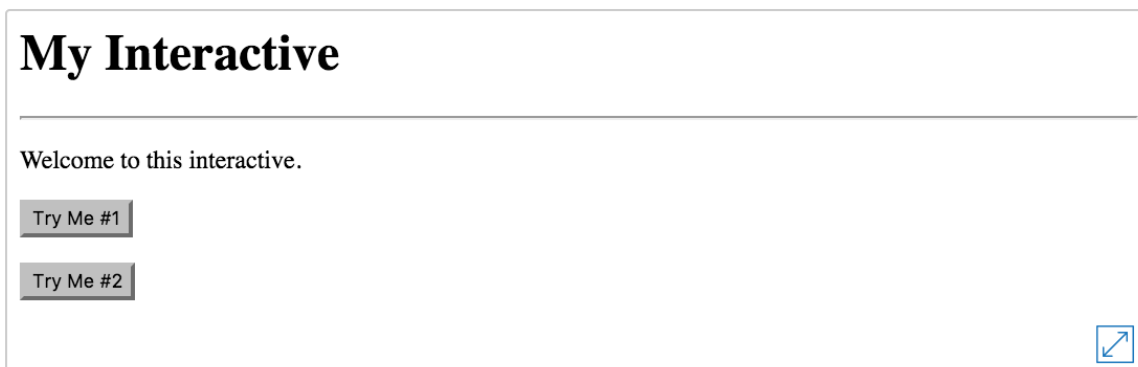
Interactives list item with Shortcode

Viewing an Existing Interactive

If in the Interactives list shown above, if you click on view under the Interactive's name (hover the cursor over that area), then you can view the interactive in its own preview page (see example below).

My Interactive

By Alexandria Support



Preview of interactive

Advanced Interactives

Experimental Feature!

Interactives are a rapidly changing. Advanced interactive capabilities are an experimental new feature for Alexandria. It is currently in *beta* stage. Unfortunately, being on the edge means that there may be occasional bugs. We will inform the Alexandria community when this feature is no longer experimental.

For more advanced interactives, you may wish to make use of the 'parameters' feature. Parameters allow every instance of an interactive to receive some extra data from the module where it resides. Parameters are well suited to interactives that can open files, for instance. If you wanted to create an interactive that displayed a 3D model, it would be both tiresome and inefficient to upload many parameterless interactives for every model you wished to display. Parameters let you upload one interactive that does everything, and then upload other files that modify its behaviour.

Using parameters within a module looks similar to the following:

5.2 Reveal/Pop-up feature for hints and answers

Pop-Up Balloons

Sometimes you might wish to provide pop-up balloons when users click on a small balloon, phrase or term. Such balloons can define a term, provide a question hint or answer, provide further explanation.

Creating Pop-Up Balloons

Create pop-up balloons by using the reveal short code `[reveal] ... [/reveal]`.

You will see a small balloon symbol that expands when clicked, such as here. What is Alexandria? ¹

What if you want the pop-up balloon to refer to a specific block of text to be clicked? Then you should use add a label to your short code. Then include that text between the short code.

For example, what is [Alexandria?](#) ²

You would use the following code snippet for the above. `[reveal label ="Alexandria?"] Alexandria is an educational resource repository. [/reveal]`

If you want to include an image, use the Media Library to insert the image between the reveal short codes. For example:

Ant! `[reveal] (ant image) [/reveal]`

Should show this:

Ant! ³

¹ Alexandria is an educational resource repository.

² Alexandria is an educational resource repository.

³



(<https://www.alexandriarepository.org/wp-content/uploads/Red-Ant.jpg>)

6

Creating Quizzes

You can create interactive quizzes for your Alexandria content. Such quizzes can help students gauge their progress and prepare them for exams.

[6.1 Planning and Developing Quizzes](#)

[6.2 Creating a WP Pro Quiz](#)

[6.3 Creating WP Pro Quiz multiple choice questions](#)

[6.4 Improving a WP Pro Quiz multiple choice question](#)

[6.5 Creating more types of WP Pro Quiz questions](#)

[6.6 Embedding Your WP Pro Quiz](#)

6.1 Planning and Developing Quizzes

Introduction

Alexandria allows you to include quizzes in your content using the WP-Pro-Quiz tool (see left side menu when in edit mode). WP-Pro-Quiz can be a bit daunting for the new user, so it is wise to first create a very simple quiz to explore the tool to gain an idea of its capabilities and limitations. This quiz can then be later modified for actual users.

Planning Your Quiz

Before developing the quiz, it is advisable to carefully plan out the quiz and its questions before entering it into Alexandria. The following elements are required for each question:

- Question
- Answer

The following elements are optional, but can be composed in advance:

- Answer feedback
- Hints
- Multiple attempts

In fact, you might even wish to type the contents of your quiz into a text document (where you can easily edit and clean up), then then copy and paste the contents into WP-Pro-Quiz.

Answer Types

It will be easier to plan your quiz if you know the available answer types. These are shown in the image below.

Answer type

Single choice
 Multiple choice
 "Free" choice
 "Sorting" choice
 "Matrix Sorting" choice
 Cloze
 Assessment

WP Quiz Pro answer types

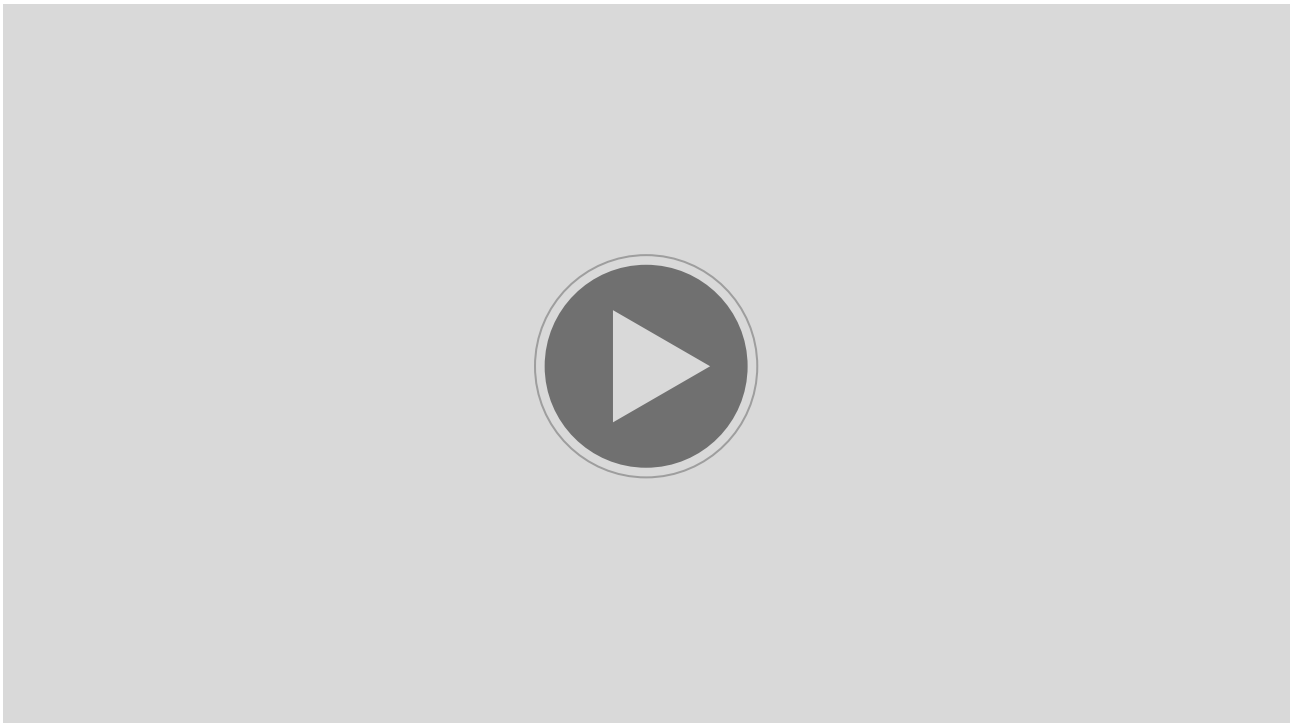
6.2 Creating a WP Pro Quiz

Introduction

Creating a WP Pro Quiz isn't difficult, but it can involve a bewildering range of options for the new user. Eventually you may need that flexibility, but you can get started with just a few steps.

Creating the Quiz

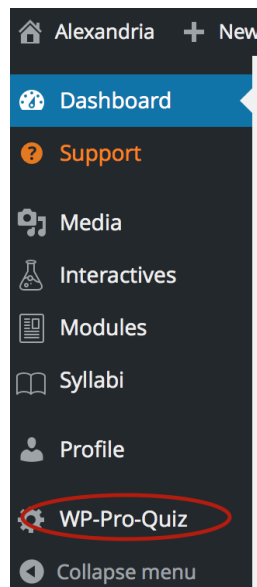
Watch this video or follow the steps below it to create your quiz.



(https://www.alexandriarepository.org/wp-content/uploads/20151021133533/Creating_A_WP_Pro_Quiz-9MB.mp4)

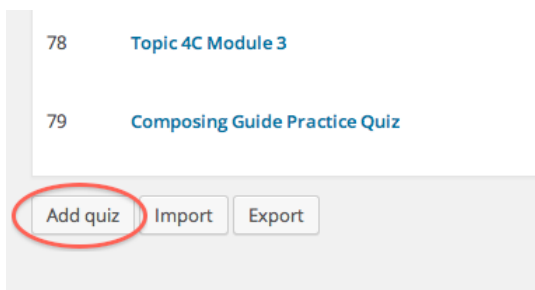
Steps

1) To start, go to the dashboard and click the WP Pro Quiz menu item (see below).



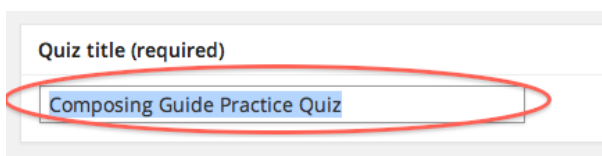
WP Pro Quiz dashboard
item

2) Then scroll all the way to the bottom of the list that appears, and click the "Add Quiz" button.



The only fields you need to initially fill out are those marked as "(required)", and you only need to place temporary text in them, because you can change those fields later.

3) I will start by giving my new quiz a title: "Composing Guide Practice Quiz". The list of quizzes is getting quite long. So make sure to give your quiz a name that you can easily find and recognise in the future.



4) Scroll all the way down to "Quiz mode". Quiz mode is required, but "Normal" is auto-selected. Let's stick with this option for now.

| Quiz-Mode (required) | | |
|--|--|--|
| <p>Normal</p> <p><input checked="" type="radio"/> Activate</p> <p>Displays all questions sequentially, "right" or "false" will be displayed at the end of the quiz.</p> <p>Demo</p> | <p>Normal + Back-Button</p> <p><input type="radio"/> Activate</p> <p>Allows to use the back button in a question.</p> <p>Demo</p> | <p>Che</p> <p><input type="radio"/> Activate</p> <p>Shows "right" question.</p> <p>Demo</p> |

5) Then scroll down to the Quiz Description. This field will introduce your quiz to users. You can enter whatever you wish, but it is useful to enter a brief introduction and perhaps instructions, such as:

This Practice Quiz will test your understanding of how to use WP Pro Quiz. The quiz will consist of several multiple choice questions. Please choose the best answer.

Below is an example of how that text would appear in the Quiz Description field.

Quiz description (required)

This text will be displayed before start of the quiz.

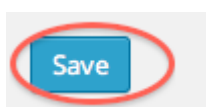
[Add Media](#)

B *I* ABC

Paragraph

This Practice Quiz will test your understanding of how to use WP Pro Quiz. The quiz will consist of several multiple choice questions. Please choose the best answer.

6) Then click the "Save Quiz" button.



Congratulations! You have created your first WP Pro Quiz. However, it won't be very useful until we add some questions. We will do that next.

6.3

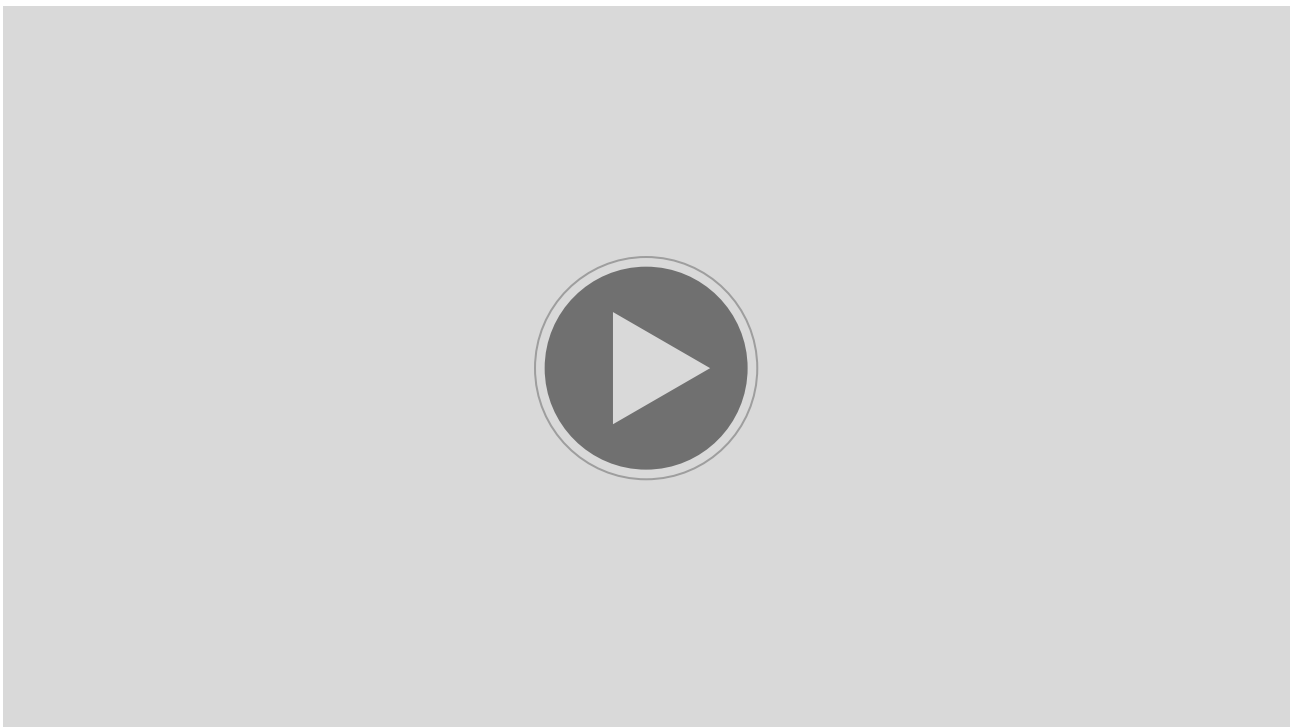
Creating WP Pro Quiz multiple choice questions

Introduction

Most quizzes will involve multiple choice questions. They tend to be the easiest questions to allow automated marking that also allow a wide flexibility of potential answers. Creating multiple choice questions and answers in WP Pro Quiz is relatively straightforward. It is a good way to start learning how to create questions in WP Pro Quiz.

Creating the Questions and Answers

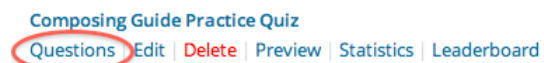
This short video will discuss how to create questions and answers with WP Pro Quiz, focusing on multiple choice questions as an example.



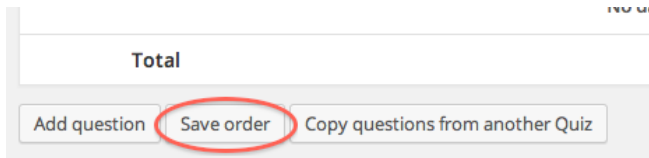
(https://www.alexandriarepository.org/wp-content/uploads/20151021133455/wp_pro_quiz_create_questions-8MB.mp4)

Steps

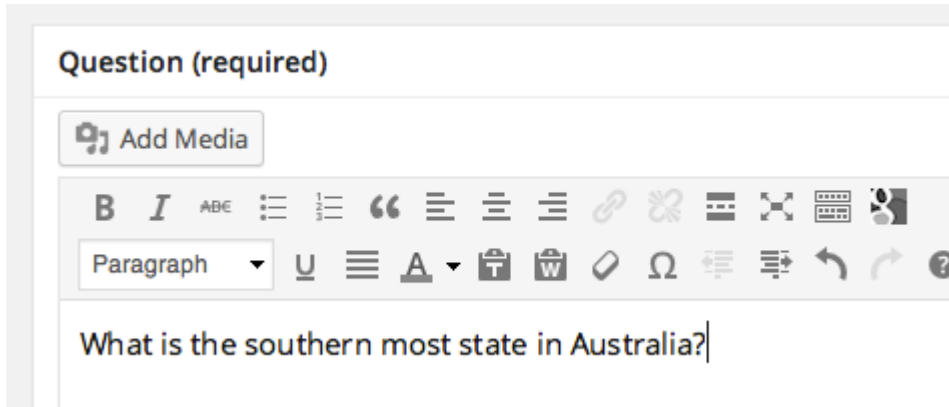
1) Go to the WP-Pro-Quiz list, then move the cursor (arrow) over your quiz. Choose "Questions".



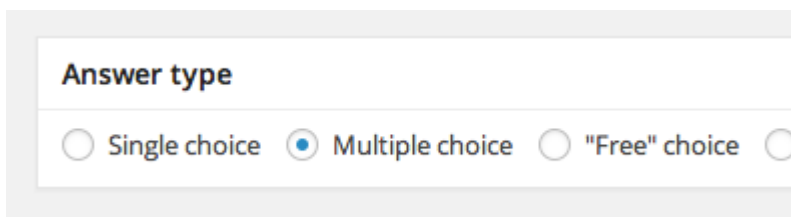
2) Click the "Add Question" button.



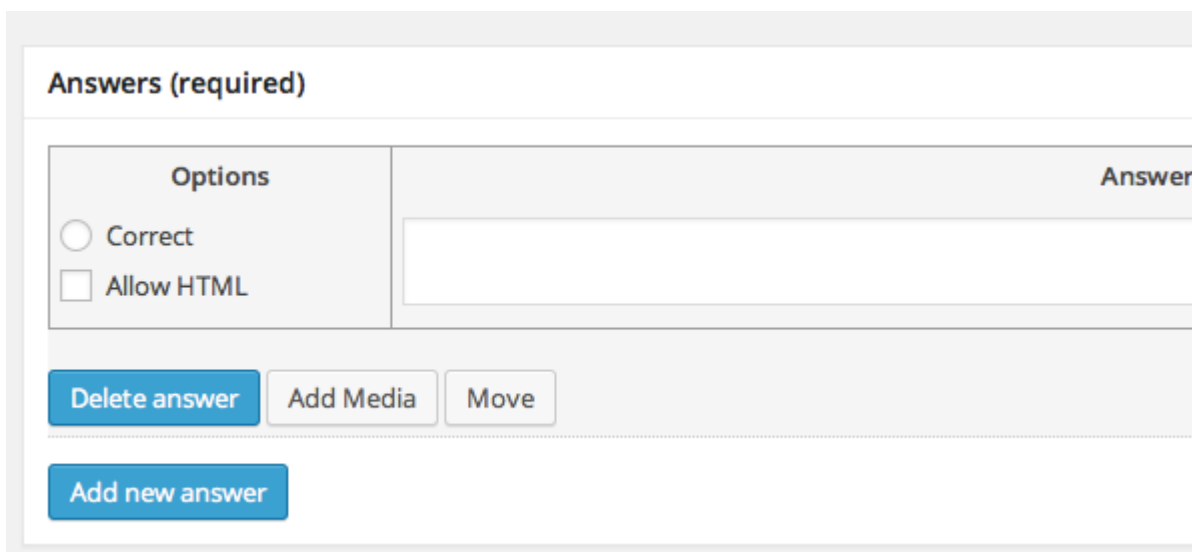
3) There are only two parts you really must worry about. First is the Question field. Simply type your question there.



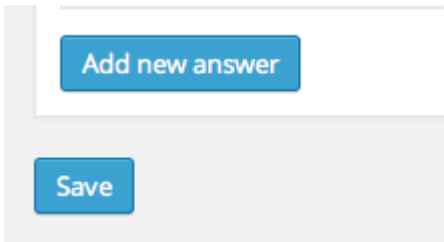
4) The other essential field is entering Answers in the part with that name. This can be a little tricky. First change Answer Type to Multiple Choice.



Then, enter your first answer under Answers (see below image). Make sure to include at least one correct answer and click the Correct box next to that answer. Click Add Question to keep adding answers.



When finished, click the Save button.



Your quiz is now ready for use. You can use it in one or more learning modules. You can also edit the quiz as desired.

6.4

Improving a WP Pro Quiz multiple choice question

Introduction

There are numerous ways to improve quizzes. Questions can be assigned different points. Feedback for particular answers can be provided. Further information can be provided for questions.

Let's improve our multiple choice question. We will click "Edit" under Question 1.

Points and Weighting

It is possible to give each question a certain amount of points, perhaps to better reflect the point system used of in-class quizzes. Some questions can be given more weight than others to emphasize their importance or difficulty.

Go to Points (required). Let us make this a 5 point question by changing the 1 to a 5.

Answer Feedback

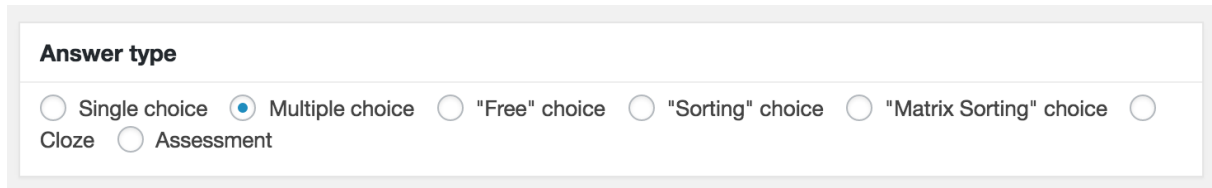
Providing feedback to answers can help improve the learning process. It is often as educationally valuable to indicate why an answer was incorrect as much as that it was incorrect.

In WP Pro Quiz, you can provide a response for the collectively for the correct answers and collectively for the incorrect answers, but can specify particular answers in the feedback.

6.5 Creating more types of WP Pro Quiz questions

Introduction

Recall that WP Pro Quiz allows for several types of questions (see image below). Let's consider those other types of questions.



The image shows a screenshot of the 'Answer type' selection interface in WP Quiz Pro. It features a title 'Answer type' and a horizontal list of radio button options: 'Single choice', 'Multiple choice' (which is selected), '"Free" choice', '"Sorting" choice', '"Matrix Sorting" choice', 'Cloze', and 'Assessment'.

WP Quiz Pro answer types

Question Types

- A single choice question is useful for when you want to impress a single correct answer to a student.
- A multiple choice question allows the choice among several set answers.
- A true false question can simply be a multiple choice question with two choices.
- A "Free" Choice question can require a very literal answer!
- What about a group of related questions that all share the same fact pattern? There are two approaches. Show the facts once for the first question, then include the facts as a hint for succeeding questions. Or, in the Quiz edit options, show ALL of the quiz questions on a single web page and just show the facts once above the first question.

6.6 Embedding Your WP Pro Quiz

Introduction

Embedding your quiz is easy. Go to the list of quizzes. Find your quiz. Copy the short code for your quiz, e.g. [WpProQuiz 79] and paste it into your learning module. You should see something similar to the following:

Start Quiz (<https://www.alexandriarepository.org/app/WpProQuiz/79>)

7 Advanced Composers

[7.1 Using HTML, Overriding CSS, Etc.](#)

[7.2 Using HTML/CSS to Create Advanced Tables](#)

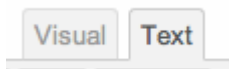
7.1

Using HTML, Overriding CSS, Etc.

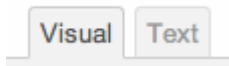
Introduction

This section is for composers *with* technical knowledge of hypertext mark-up language (HTML) and cascading style sheets (CSS).

It is possible to insert or edit html and css code in the content window by switching from the Visual tab to the Text tab (see below). One reason to do so is to create a customised table. Many html codes such as "h1" and "s" work fine. Some other html codes such as "br" and "p" will not hurt anything, but they will not function as desired. So double-test the results by switching back and forth a few times between Text and Visual tabs! (Sometimes the mere act of switching these tabs will alter the formatting).



- One caveat: it is easy to forget that you are in the Text tab, so make sure to switch back to Visual as soon as you are done with the Text tab.



HTML

- Tags that will work (not an exhaustive list):
 - h1,h2,h3,h4,h5,h6
 - hr for a horizontal line
 - q for short quotes
 - s for strikethrough
- The I formatting in the tool bar should be used instead of underline or the u tag. The u tag can confuse accessibility readers.
- Many table tags will work.
- **TIP:** The html "p" element will not work by itself. The trick is to use CSS to specify a colour or other style, then the p code will have effect: `<p style="color: black;">This text will appear black.</p>`
- If you cannot add a desired line space (feed) in Visual mode, then in Text mode you can add a line feed by typing:
 - ` `;

CSS

This section concerns using CSS and overwriting the default CSS style. Although much styling is possible,

only do so if you have an important reason. Otherwise you will be disrupting the consistent look and feel of Alexandria, valued by many users, which distinguishes it from some other shared learning content repositories. Many Alexandria style elements are controlled by CSS (Cascading Style Sheets).

- It is possible to override these styles on the page or element level, using inline CSS styling. Although this is generally discouraged, there are certainly cases where different style choices can enhance the learning experience.
- Example: in Text mode, you can set the text color to red in a paragraph element (see below) for code and result.

```
<p style="color: red;">This text will appear red.</p>
```

This text will appear red.

- Here, we set the line number to 4 by adding `firstline="4"` to the html short code.

-

This text will appear black.

- Here is a link to a list of [web-safe colors](http://www.w3schools.com/colors/colors_names.asp) (http://www.w3schools.com/colors/colors_names.asp). You can use either the *Colour Name* or the *HEX* value to specify the colour.

7.2 Using HTML/CSS to Create Advanced Tables

Introduction

This section is for composers *with* technical knowledge of hypertext mark-up language (HTML) and cascading style sheets (CSS).

The easiest way to create a table in Alexandria is to use the table tool in the editing toolbar. That tool already has many of the styling options discussed below.

Otherwise, you can use the [table] short code if you have a specific reason for doing so (such as you already created a table or template with it). However, this approach may not provide your desired styles. Fortunately, you can create tables in Alexandria by entering html code while in the *Text* tab. This will give you more control than the table short codes.

Using HTML

Below is an HTML table code template and result for adding a table in text mode. Note that "th" means table heading, "tr" means table row and "td" means table cell. Common html codes will often work in Alexandria. For example, note how the top row (above) is bolded as a column heading by using the <th></th> tag pair.

```
<table>
  <tr>
    <th> Heading A</th><th>Heading B</th><th>Heading C</th>
  </tr>
  <tr>
    <td>Data 1a</td><td>Data 1b</td><td>Data 1c</td>
  </tr>
  <tr>
    <td>Data 2a</td><td>Data 2b</td><td>Data 2c</td>
  </tr>
</table>
```

| HEADING A | HEADING B | HEADING C |
|------------------|------------------|------------------|
| Data 1A | Data 1B | Data 1C |
| Data 2A | Data 2B | Data 2C |

Other HTML elements work as well. For example, the tag pair produced the emphasis in the descriptions in the table in the section below.

CSS

To really customise your table, you will need CSS. Many CSS styles overrides work in Alexandria. CSS stands for "Cascading Style Sheets", but all you need to know is that CSS can be used to style format, including changing colors. For example, `<td>` was modified as `<td style="color: red;">` to produce the red color of the "- 12" figure.

| Region | Description | Change |
|----------------------|--|--------|
| Western Australia | Tweedle Beetles | + 10% |
| Northern Territories | Tweedle Beetle <i>Battles</i> | - 12% |
| South Australia | Tweedle Beetle <i>Battles Using Paddles</i> | + 27% |

Break cell content into two lines

Do you need to break a cell into two lines? Sometimes formatting the text as multiple paragraphs may better suit for needs. A simple return to create two lines might work. If not, use a `p` tag. Unfortunately, the html "p" tag will not work by itself in Alexandria. The trick is to use CSS to specify a colour, then the `p` code can be used to create separate lines or paragraphs:

```
<p style="color: black;">This text will appear black.</p>
```

Table Borders

Use this format to style the borders. Choices are solid, double, dotted and dashed.

```
<table style="border-style: solid;">
```

The results might not be as expected in some cases, so test before publishing.

Websafe Colours

Here is a link to a list of [web-safe colours](http://www.w3schools.com/colors/colors_names.asp) (http://www.w3schools.com/colors/colors_names.asp). You can use either the *Colour Name* or the *HEX* value to specify the colour.

8 Intellectual Property

[8.1 Intellectual Property Considerations](#)

[8.2 Copyright Resources and Downloads](#)

8.1 Intellectual Property Considerations

Alexandria strives to be an open source repository of educational resources. If you contribute content to Alexandria, it should be open source and freely available (at least within the Monash University community) unless you have made arrangements otherwise.

Nevertheless, various objects in Alexandria have somewhat different licensing terms. Most objects require a Monash University attribution (for example, if you use them outside of Alexandria for Monash University). Others do not allow altered derivatives. Other items are subject to specific standard licenses whose terms can be found online.

Several Creative Commons licenses are frequently used for materials on Alexandria. To see more about those licenses, see the [Creative Commons](http://creativecommons.org/licenses/) (<http://creativecommons.org/licenses/>) site.

To see licenses currently used on Alexandria, click [here](#)

(https://www.alexandriarepository.org/wp-admin/edit-tags.php?taxonomy=license&post_type=module) (you may need author level access to view this link).

When adding content to Alexandria, you should record the license(s) to which it is subject in the *Licenses* metadata panel.

8.2 Copyright Resources and Downloads

Alexandria copyright guidelines

The Monash copyright office has provided the following copyright [guidelines](#) (https://www.alexandriarepository.org/?attachment_id=33874) (may require a Monash University Authcate account to view).

Online image resources

Although these databases may allow some use of their work for teaching purposes or for research they have specific terms and conditions that must be followed. If you publish work you would need to seek further permission from the copyright owners.

NOTE: Some of these images may be posted online by people who are not the copyright owners i.e. they don't have the rights to permit use of these images. Use your common sense as to whether the person making the image available is likely to be the real creator.

[Monash: If you have any queries about these resources please [contact the Copyright Office:](#) University.Copyright@monash.edu]

General

- [Monash University Image library](http://www.imagelibrary.monash.edu.au/) (<http://www.imagelibrary.monash.edu.au/>) (terms of use applicable)
- [Open Clip Art Library](http://openclipart.org/) (<http://openclipart.org/>)(free content)
- [Wikimedia Commons](http://commons.wikimedia.org/wiki/Main_Page) (http://commons.wikimedia.org/wiki/Main_Page)
- [Wikiart Visual Art Encyclopedia](http://www.wikiart.org/) (<http://www.wikiart.org/>)
- [Flickr Commons](http://www.flickr.com/commons) (<http://www.flickr.com/commons>)
- [Library of Congress, American Memory](http://memory.loc.gov/) (<http://memory.loc.gov/>)
- [Smithsonian Institute](http://www.flickr.com/photos/smithsonian/) (<http://www.flickr.com/photos/smithsonian/>)
- [Imperial War Museum](http://www.flickr.com/photos/Imperialwarmuseum/) (<http://www.flickr.com/photos/Imperialwarmuseum/>)
- [Library of Congress](http://www.flickr.com/photos/library_of_congress/) (http://www.flickr.com/photos/library_of_congress/)
- [National Maritime Museum](http://www.flickr.com/photos/nationalmaritimemuseum/) (<http://www.flickr.com/photos/nationalmaritimemuseum/>)
- [George Eastman House](http://www.flickr.com/photos/george_eastman_house/) (http://www.flickr.com/photos/george_eastman_house/)
- [National Media Museum](http://www.flickr.com/photos/nationalmediamuseum/) (<http://www.flickr.com/photos/nationalmediamuseum/>)
- [New York Public Library Digital Gallery](http://digitalgallery.nypl.org/nypldigital/index.cfm) (<http://digitalgallery.nypl.org/nypldigital/index.cfm>)
- [British Library Public Domain Images](http://www.flickr.com/photos/britishlibrary) (<http://www.flickr.com/photos/britishlibrary>)
- [Stock.XCHNG](http://www.sxc.hu/) (<http://www.sxc.hu/>) (free stock photos for non-commercial use)
- [Pixabay](http://pixabay.com/) (<http://pixabay.com/>) (free photos mixed with some commercial pay per use images)
- [Publicdomainpictures.net](http://www.publicdomainpictures.net/) (<http://www.publicdomainpictures.net/>) (some images NOT free - check licence terms)
- [Publicdomainphotos.com](http://www.public-domain-photos.com/) (<http://www.public-domain-photos.com/>) (some images NOT free - check licence terms)
- [Imageafter.com](http://www.imageafter.com/) (<http://www.imageafter.com/>) (some images NOT free - check licence terms)
- [Prodraw program graphics](http://www.prodraw.net/) (<http://www.prodraw.net/>) Commercial company creating cartoons, images and GIF animations available under Creative Commons . Check licence terms for each item as some

restrictions may apply. NOTE: images in wallpaper and public gallery are **not** free for use unless otherwise stated

- ['How to attribute a Creative Commons photo'](#) (<http://librarianbyday.net/2009/09/how-to-attribute-a-creative-commons-photo-from-flickr/>), Bobbi L. Newman, librarianbyday.net - Very useful on how to correctly cite from Creative commons
- ['Finding images on Flickr'](#) (<http://www.jiscdigitalmedia.ac.uk/guide/finding-images-on-flickr/>), JISC - Useful on search strategies and use of images on flickr

Australian resources:

- [Picture Australia](http://www.pictureaustralia.org/index.html) (<http://www.pictureaustralia.org/index.html>)
- [Museum Victoria](http://museumvictoria.com.au/) (<http://museumvictoria.com.au/>)
- [CSIRO Science Image](http://scienceimage.csiro.au/) (<http://scienceimage.csiro.au/>) (all images CC-BY, Creative Commons, attribution only)
- [State Library of Victoria](http://search.slv.vic.gov.au/primo_library/libweb/action/search.do?mode=Basic&vid=MAIN&tab=pictures&) (http://search.slv.vic.gov.au/primo_library/libweb/action/search.do?mode=Basic&vid=MAIN&tab=pictures&) (different conditions apply, check under details tab for 'out of copyright')
- [State Library of NSW](http://www.flickr.com/photos/statelibraryofnsw/) (<http://www.flickr.com/photos/statelibraryofnsw/>)
- [Powerhouse Museum](http://www.flickr.com/photos/powerhouse_museum/) (http://www.flickr.com/photos/powerhouse_museum/)
- [Australian War Memorial](http://www.flickr.com/photos/australian-war-memorial/) (<http://www.flickr.com/photos/australian-war-memorial/>)
- [Design and Art Australia Online](http://www.daa0.org.au/) (<http://www.daa0.org.au/>) Note: text is creative commons but images are licensed under different conditions. Check each image for its licence terms

Africa and Asia

- [In and Out of Focus: Images from Central Africa 1885-1960](http://africa.si.edu/exhibits/focus/index.html) (<http://africa.si.edu/exhibits/focus/index.html>)
- [Asia Network](http://www.asianetwork.org/) (<http://www.asianetwork.org/>)
- [Image Database to Enhance Asian Studies \(IDEAS\)](http://ideas.nitle.org/) (<http://ideas.nitle.org/>)
- [Japanese Old Photographs of the Bakumatsu-Meiji Period](http://oldphoto.lb.nagasaki-u.ac.jp/en/) (<http://oldphoto.lb.nagasaki-u.ac.jp/en/>)
- [Kamat's Potpourri](http://www.kamat.com/) (<http://www.kamat.com/>)

Art history, architecture and photography

- [Art Images for College Teaching](http://quod.lib.umich.edu/a/aict?g=art-ic;page=index) (<http://quod.lib.umich.edu/a/aict?g=art-ic;page=index>)
- [Artstor](http://library.artstor.org/library/welcome.html#1) (<http://library.artstor.org/library/welcome.html#1>)- art images database subscribed to by Monash - for use in teaching and research but not publication.
- [Images for academic publishing](http://www.artstor.org/what-is-artstor/w-html/services-publishing.shtml) (<http://www.artstor.org/what-is-artstor/w-html/services-publishing.shtml>) is part of Artstor and includes images that have been cleared for use in scholarly publishing. To find images add IAP to artstor search criteria. Any thumbnail labelled IAP in search results can be used in a published scholarly article.
- [Artcyclopedia](http://www.artcyclopedia.com/) (<http://www.artcyclopedia.com/>)
- [Asian Historical Architecture](http://www.orientalarchitecture.com/) (<http://www.orientalarchitecture.com/>)
- [Bridgeman Education](http://monash.edu/library/databases/2849492.html) (<http://monash.edu/library/databases/2849492.html>) - images database subscribed to by Monash - for use in teaching and research but not publication
- [Digital Imaging Project](http://www.bluffton.edu/~sullivanm/index/index2.html) (<http://www.bluffton.edu/~sullivanm/index/index2.html>)
- [Google Art Project](http://www.googleartproject.com/) (<http://www.googleartproject.com/>) - Images not cleared for downloading but suitable for viewing in lectures or for directing students to view.
- [Tours of galleries and artworks on Youtube](http://www.youtube.com/googleartproject) (<http://www.youtube.com/googleartproject>)
- [Himalayan Art](http://www.himalayanart.org/) (<http://www.himalayanart.org/>)

- [J Paul Getty Art Museum, Open Content Program](http://www.getty.edu/about/opencontentfaq.html) (http://www.getty.edu/about/opencontentfaq.html) - Images from their collections, some downloadable
- [Los Angeles County Museum of Art](http://www.lacma.org/image-library) (http://www.lacma.org/image-library)
- [Museum of New Zealand](http://collections.tepapa.govt.nz/) (http://collections.tepapa.govt.nz/)
- [National Portrait Gallery UK](http://www.npg.org.uk/collections/explore.php) (http://www.npg.org.uk/collections/explore.php)
- [Rijksmuseum](https://www.rijksmuseum.nl/en/rijksstudio) (https://www.rijksmuseum.nl/en/rijksstudio)
- [Smarthistory](http://smarthistory.org/) (http://smarthistory.org/) (Free and open art history textbook, full of images)
- [Society of Architectural Historians' Image Exchange: World Architectural History](http://www.brynmawr.edu/cities/Cities/wld/wccepts1.html) (http://www.brynmawr.edu/cities/Cities/wld/wccepts1.html)
- [Walters Art Museum](http://art.thewalters.org/) (http://art.thewalters.org/)
- [Web Gallery of Art](http://www.wga.hu/index.html) (http://www.wga.hu/index.html)
- [Wikiart Visual Art Encyclopedia](http://www.wikiart.org/) (http://www.wikiart.org/)
- Yale Centre for Digital Art
 - [Online collections](http://britishart.yale.edu/collections/using-collections/online-collections/) (http://britishart.yale.edu/collections/using-collections/online-collections/)(different licence conditions apply, check each item)
 - [Digital Commons](http://discover.odai.yale.edu/ydc/Search/Results?lookfor=&type=allfields/) (http://discover.odai.yale.edu/ydc/Search/Results?lookfor=&type=allfields/)(content free for educational use, remember to cite source)

Astronomy and Physical Sciences

- [Compadre](http://www.compadre.org/portal/Selector.cfm?S=2) (http://www.compadre.org/portal/Selector.cfm?S=2)
- [Hubble Site](http://hubblesite.org/gallery/) (http://hubblesite.org/gallery/)
- [NASA](http://www.nasa.gov/) (http://www.nasa.gov/)
- [National Virtual Observatory NVO](http://www.us-vo.org/) (http://www.us-vo.org/)
- [Sloan Digital Sky Survey image gallery](http://www.sdss.org/gallery/) (http://www.sdss.org/gallery/)
- [Contemporary Laboratory Experiences in Astronomy \(CLEA\)](http://www3.gettysburg.edu/~marschal/clea/CLEAhome.html) (http://www3.gettysburg.edu/~marschal/clea/CLEAhome.html)

Biology/Life Sciences

- [BiosciEdNet](http://www.biosciencednet.org/) (http://www.biosciencednet.org/)
- [Botany Database](http://ssad.bowdoin.edu:9780/projects/cbb99/Plants/cgi-bin/intro.pls) (http://ssad.bowdoin.edu:9780/projects/cbb99/Plants/cgi-bin/intro.pls)
- [Botanical Society of America Online Image Collection](http://images.botany.org/cgi-bin/image-search.pl) (http://images.botany.org/cgi-bin/image-search.pl)
- [Flybrain: Online Atlas and Database of the Drosophila Nervous System](http://flybrain.neurobio.arizona.edu/) (http://flybrain.neurobio.arizona.edu/)
- [Invasive Species](http://www.invasivespeciesinfo.gov/resources/images.shtml) (http://www.invasivespeciesinfo.gov/resources/images.shtml)
- [Microbe Library](http://www.microbelibrary.org/) (http://www.microbelibrary.org/)
- [National Biological Information Infrastructure's Digital Image Library](http://images.nbii.gov/) (http://images.nbii.gov/)
- [National Center for Biotechnology Information](http://www.ncbi.nih.gov/) (http://www.ncbi.nih.gov/) - only US government information on this site is free for use. Other material check licence conditions.

Chemistry

- [Analytical Sciences Digital Library](http://www.asdlib.org/) (http://www.asdlib.org/)
- [Chem Collective: Online Resources for Teaching and Learning Chemistry](http://www.chemcollective.org/) (http://www.chemcollective.org/)
- [Crystal Lattice Structures](http://cst-www.nrl.navy.mil/lattice/) (http://cst-www.nrl.navy.mil/lattice/)

Classics

- [Maecenas: Images of Ancient Greece and Rome](http://wings.buffalo.edu/AandL/Maecenas/general_contents.html) (http://wings.buffalo.edu/AandL/Maecenas/general_contents.html)

Earth Sciences

- [American Geological institute: Earth Science World Image Bank](http://www.earthscienceworld.org/imagebank/) (http://www.earthscienceworld.org/imagebank/)

- [Jet Propulsion Laboratory: Planetary Photojournal](http://photojournal.jpl.nasa.gov/index.html) (<http://photojournal.jpl.nasa.gov/index.html>)
- [NASA's Visible Earth](http://visibleearth.nasa.gov/) (<http://visibleearth.nasa.gov/>)
- [National Oceanic & Atmospheric Administration Image Collections](http://www.photolib.noaa.gov/collections.html) (<http://www.photolib.noaa.gov/collections.html>)
- [PASDA Pennsylvania Spatial Data Access: The Pennsylvania Geospatial Data Clearinghouse](http://www.pasda.psu.edu/) (<http://www.pasda.psu.edu/>)

History

- [Picture Australia](http://www.pictureaustralia.org/index.html) (<http://www.pictureaustralia.org/index.html>)
- [Perry-Castaneda Map Collection at U Texas, Austin](http://www.lib.utexas.edu/maps/) (<http://www.lib.utexas.edu/maps/>)

Languages

- [REALIA \(Rich Electronic Archive for Language Instruction Anywhere\)](http://www.realiaproject.org/) (<http://www.realiaproject.org/>)

Literature

- [Schoenberg Center for Electronic Text and Images \(SCETI\)](http://dewey.library.upenn.edu/sceti/flash.cfm) (<http://dewey.library.upenn.edu/sceti/flash.cfm>)

Send an email inquiry to the University's [Copyright Adviser](#).

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Derived from a page maintained by libweb@lib.monash.edu.au - [Accessibility information](http://www.monash.edu.au/accessibility/) (<http://www.monash.edu.au/accessibility/>)

9 Accessibility

[9.1 Introduction to Accessibility](#)

[9.2 Ensuring Video Accessibility](#)

9.1 Introduction to Accessibility

Introduction

Accessibility recognises that it is vital for students with diverse needs and equipment to be able to benefit from Alexandria content. Various techniques and issues to meet and exceed accessibility requirements will be discussed below.

Making text content more accessible

Proper formatting goes well beyond merely making content more visually attractive. It adds semantic context for the content that accessibility software and equipment can utilise to help all users (impaired or otherwise) understand what they are reading.

Headings

H2 should be used for top level headings in content. (The title is already in H1). H3 should be used for major subsections, then H4, H5, H6 should be used for each lower level of hierarchy, respectively.

Boldface

Generally, boldface should *not* be used for headings.

Emphasis

"The proper HTML elements should be used to mark up emphasis: EM and STRONG. The B and I elements should not be used; they are used to create a visual presentation effect." (Source: W3).

Quotations

"Mark up quotations. Do not use quotation markup for formatting effects such as indentation. The Q and BLOCKQUOTE elements mark up inline and block quotations, respectively." (Source: W3).

Links

Good link text should not be overly general; don't use "click here." Not only is this phrase device-dependent (it implies a pointing device) it says nothing about what is to be found if the link is followed. Instead of 'click here', link text should indicate the nature of the link target, as in 'more information about sea lions' or 'text-only version of this page'." (Source: W3).

Reference and Further Information

W3 [HTML Techniques for Web Content Accessibility Guidelines 1.0](http://www.w3.org/TR/WCAG10-HTML-TECHS/) (<http://www.w3.org/TR/WCAG10-HTML-TECHS/>).

Making Media More Accessible

Captions for images and other media help identify that media and its source. However, a description of the media should be added in the Alt metadata field, where available.

It is preferred that videos should have captioning within the video itself, so impaired readers can follow along.

Further Information

- [HTML5 accessibility and ARIA](http://www.clarissapeterson.com/2012/11/html5-accessibility/) (<http://www.clarissapeterson.com/2012/11/html5-accessibility/>).
 - [Why is video captioning so difficult in HTML?](http://Why%20is%20video%20captioning%20so%20difficult%20in%20HTML?)
(<http://Why%20is%20video%20captioning%20so%20difficult%20in%20HTML?>)
 - [HTML 5 Video, Text Tracks, and Audio Descriptions Made Easy \(or at least easier\)](http://accessibility.oit.ncsu.edu/blog/2011/06/14/html-5-video-text-tracks-and-audio-descriptions-made-easy-or-at-least-easier/)
(<http://accessibility.oit.ncsu.edu/blog/2011/06/14/html-5-video-text-tracks-and-audio-descriptions-made-easy-or-at-least-easier/>)
 - [WebAim](http://webaim.org/techniques/semanticstructure/) (<http://webaim.org/techniques/semanticstructure/>).
-

9.2 Ensuring Video Accessibility

Techniques to ensure video accessibility:

- Upload video in both MP4 and WebM formats.
 - Use transcripts and captioning.
 - A *transcript* is a written record of what was said during a video, along with annotations. It can be prepared using a simple word processor.
 - *Captioning* syncs on screen text of what was said with when it was said. Captioning must typically be entered in video editing software, but there are also services that can prepare captioning.
 - Use a descriptive caption for embed window.
-

10 Access and Security

[10.1 User Roles and Permission to Content](#)

[10.1.1 User Roles](#)

[10.1.2 Content Permissions](#)

[10.1.2.1 Giving Individual Users Permissions to Content](#)

[10.1.3 Giving Access to Groups of External Users-Restricted User Accounts](#)

[10.2 Hide feature](#)

10.1

User Roles and Permission to Content

The Alexandria Repository provides sophisticated access and permissions features. Alexandria has two types of access schemes:

1. Those that apply to specific *content* (known as simply *Permissions*). *Permissions are granted by the owner of content.*
2. Those that apply to specific *users* (also known as *Roles* or sometimes as *user status*). Examples include Subscriber, Author, Publisher. *Roles are granted by Alexandria staff.*

The level of access a user has to any particular content is the most restrictive scenario under combined application of the two schemes.

Example 1: a user has been granted an Editor role on Alexandria. however, you have not granted that user editing rights to particular content that you own. Result: that user cannot edit your content.

Example 2: you have granted a user to read or re-use rights for your content. However, that user merely holds a Subscriber role on Alexandria. Result: that user can view your content, but cannot re-use it.

[10.1.1 User Roles](#)

[10.1.2 Content Permissions](#)

[10.1.2.1 Giving Individual Users Permissions to Content](#)

[10.1.3 Giving Access to Groups of External Users-Restricted User Accounts](#)

10.1.1 User Roles

The other type of permission is the User Role. Each user is assigned a role such as *Subscriber*, *Editor*, *Author*, etc. These roles are set by Alexandria staff.

Roles:

- Subscriber
- Editor
- Publisher

If you plan to add an external user or change an internal user to a higher level of content permission (e.g. from *Can Read* to *Can Edit*), you should use the **orange Support link** in the dashboard to inform Alexandria Staff so we can ensure that the user has the correct role.

The default role for users with Monash Authcate credentials is Subscriber, which allows them to view much of the published content on Alexandria.

10.1.2 Content Permissions

Introduction

Content permissions are set for a specific syllabus or learning module. They are shown in the right-hand Publish panel. While in Edit mode, click on the Edit link (to the right of the word *Permissions*) to change the permissions. You will see something similar to the below image.

| User | Permission | Action |
|----------------------------------|-----------------------------------|--------|
| Monash Students | Can Read Published | |
| Monash Staff | Can Read, Reuse, Derive Published | |
| Open Access | Can Read Published | |
| mpaciotola@gmail.com | Is an Owner | ✕ |
| support@alexandriarepository.org | Is an Owner | ✕ |

Search by email: Select permissions:

Note: Each user is limited by their individual role (e.g. editors cannot publish)
Only owners can change these permissions.

[Cancel](#) [Save](#)

Permissions entry

Levels of Permissions

There are several levels of permission:

- *No Access*: user cannot see content.
- *Can Read Published*: user can view content if published.
- *Can Read, Download* Published*: user can view and download content if published.
- *Can Read, Download*, Reuse Published*: user can also reuse content if published.
- *Can Read, Download*, Reuse, Derive Published*: user can make and alter derivative versions of content if published.
- *Can Edit Drafts*: user can alter content if still not yet published.
- *Can Edit & Publish Drafts, Edit Published*: user can alter content if regardless of whether published; can published content,
- *Is an Owner*: full access to content.

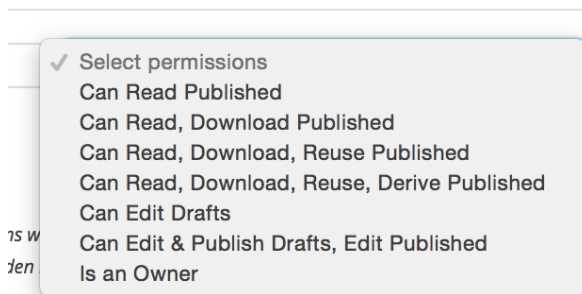
*Note that permission to download can only be granted for syllabi, but cannot be granted for individual learning modules.

You can grant the entire set of students or staff particular permissions. These broad assignments of permission are limited to viewing, reuse and derivative activities.

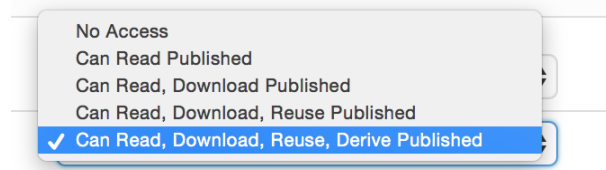
- No Access
- Can Read Published.

You can grant the entire group of staff permission to reuse or make derivative versions of your original content, but not to change the original content itself.

- Can Read, Reuse Published
- Can Read, Reuse, Derive Published



Permissions for individual users



Permissions for all staff

To grant high levels of content permissions, such as *Can Edit*, *Can Publish* or *Owner*, you must add specific users and grant them a particular level of permission, such as "Can Edit" or "Can Publish". First, enter their email address in the "Search for email" field (existing users sometimes show up by entering part of the address; you will have to enter the entire email address for new external users).


Before content has been published, users will need at least Can Edit permissions (and at least Editor role) to view that content. Conversely, after content has been published, users will need to be set as "Can Publish" instead of merely "Can Edit" to make changes. (If such users still cannot make changes or get in, you should notify Alexandria staff that their Role will need to allow this access).

Note that these individual user permissions will override the general student or staff member permission settings for that user for that content.


Coordinating syllabus and attached module permissions

Syllabi give you the further option to Merge or Override the permission of attached learning modules when viewed from the syllabus (see below). This is a powerful feature that allows you to literally bulk edit related learning module permissions with a single mouse click. Note that this will only affect modules for which you have the power to grant this level of permission.

Permissions
✕


Monash Students

Can Read


Monash Staff

Can Read, Download, Reuse & Deriv

Search by email

Select permissions

Learning Modules

Do not change

Merge
*Combine individual module permissions with this syllabus' permissions.
Conflicting permissions will be overridden by this syllabus' permissions.*

Override
Module permissions will be deleted and set to this syllabus' permissions.

Note: Each user is limited by their individual role (e.g. editors cannot publish)
Only owners can change these permissions.

Cancel
Save

Permissions entry for syllabus with merge and override options

10.1.2.1 Giving Individual Users Permissions to Content

Giving users permissions to content

1. Go to your desired syllabus (in edit mode).
2. In the *Publish* pane, click on "Edit" after "Permissions".
3. If the desired person is not already listed, enter their email address in the "Search by email" field.
4. If their email address is found, click on it. If not, ask us to add that person/email address as a new user.
5. Give that person the desired permissions.
6. Click on the Save button.
7. If you do this for each desired syllabus, then the associated modules will inherit this permission (generally speaking). Or you can edit permissions on individual learning modules.

Permission Sets

- No Access
- Can Read Published
- Can Read, Reuse Published
- Can Read, Reuse, Derive Published
- Can Edit Drafts
- Can Edit & Publish Drafts, Edit Published
- Is an Owner

10.1.3 Giving Access to Groups of External Users- Restricted User Accounts

Why Restricted User Accounts Might Be Needed

Situations exist where you may need to provide a group of external users with access to some of your content. Examples may include a syllabus for a conference or for a STEM program. External users who do not have Monash Authcate accounts need a special way to access Alexandria content. Further, since these are external users, copyright and security concerns can require that access be rather limited.

You have several options. One option is to set the permissions of your content to *Open Access*. This will allow anyone with the URL to your content to view it. (Not that you must get special permission from Alexandria to publish via Open Access due to various Monash and other concerns).

However, if you do not want everyone in the world to be able to view your content (e.g. due to copyright, security or privacy issues), Alexandria staff may be able to set up a *restricted user account* for your group. Restricted user accounts let one or a group of external users access a particular syllabus and learning modules associated with it.

Setting Up a Restricted User Account

There are several steps to set up a restricted user account:

1. You should request the Alexandria staff to create an external account for you. (These are approved on a case-by-case basis). You will need to provide the staff with an external email address and name.
2. Next, have the Alexandria staff designate this new account as a Restricted User. You should remind the staff of the desired username for this account, which should be different from your Monash Authcate username. Otherwise Alexandria staff will assign a username.
3. Once the account is set up, go to your desired syllabus or learning module in edit mode. Edit permissions. Place the external email address in the empty box and choose Can Read Published. The Restricted account will now have access to this syllabus or learning module.
4. Your external users should first log in with the external account user name you provided for the account. Then they need to paste the link to the desired syllabus in the URL bar of their browser. They should be able to see your syllabus or learning module and browse through its content.

Restricted user accounts can be set up for each individual. However, if there is a group of similar external individuals (e.g. attendees for a particular conference) who all need read only access to the same material, a group account is preferred in that it is easier to control and administer.

10.2 Hide feature

You can hide text in a Learning Module from viewers. This can be useful for changes that are under development to an already-published learning module. Also, it can also be used to place notes and annotations for the author that users should not see.

However, it is recommended to avoid using the hide code to include any confidential or sensitive information. While the hide feature has worked fine in testing, it is not intended as an especially secure feature. There could be unforeseen cases where readers or hackers could access hidden contents.

Use the following short codes: `[hide] ... [/hide]`.

Below is some hidden text. If you can't see it, this feature works.

11

Information About and From Your Users

[11.1 Analytics](#)

[11.2 Feedback and Sharing](#)

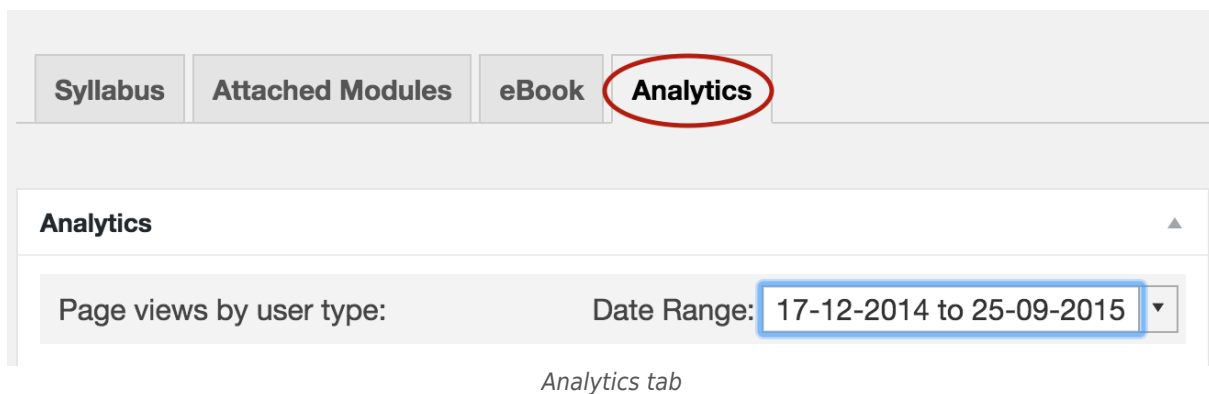
11.1 Analytics

Introduction

Alexandria has added detailed analytics features to allow you to easily determine traffic and viewer type for various time ranges. You can get information about traffic and breakdowns of users for either Syllabi or individual Learning Modules.

Accessing Analytics

To view analytics, view the appropriate syllabus or module in edit mode and then click on the "Analytics" tab (see below; it may be in a different position for learning modules).

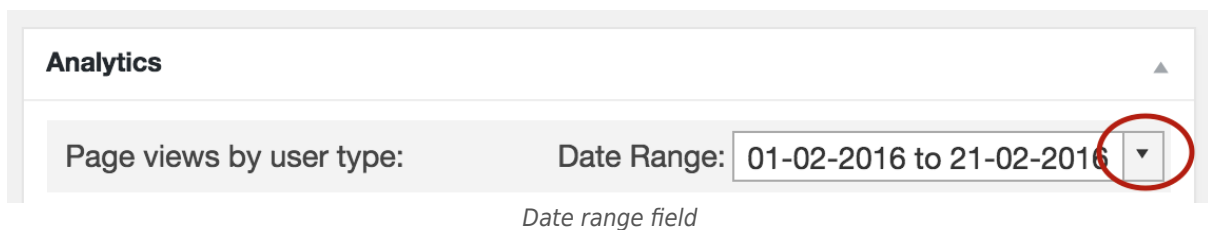


Specifying a reporting date

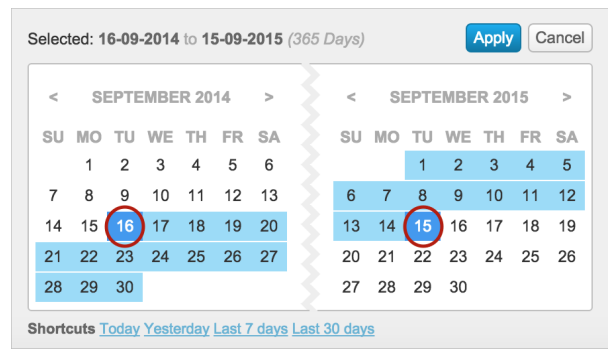
The first step in using Analytics is to specify a reporting date range. This will allow you to view data for a particular day, week or longer period. Note that you will *not* have the option of selecting a date earlier than your content was created.

You can specify a specific desired date range or choose a shortcut such as "Last 7 days" by using the following procedure:

1. Click on the down arrow to the right of the Date Range field (see below).



A dialog box containing two calendars will appear (see right). Use the < and > keys to change the lefthand calendar to select your desired *beginning* date. Click the cursor on that date. It will become highlighted.

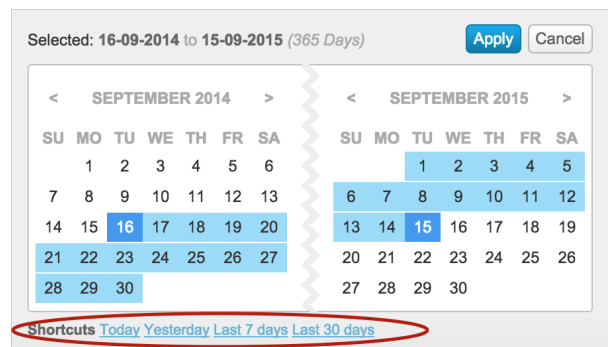


2.

Analytics date selector with start and end dates

- If the end date is in the current month, simply click on the desired *end* date in the lefthand and click apply. Otherwise, if the *end* date is in a future month, use the < and > keys to change the righthand calendar to your desired *end* date. The end date should be highlighted, and the remainder of the date range will be lightly highlighted.

Alternatively, you can specify a desired date range (see right) by choosing one of the shortcuts below the calendar. Simply click on the desired shortcut such as "Yesterday" or "Last 7 days". For shortcuts, do not worry about selecting start or end dates.



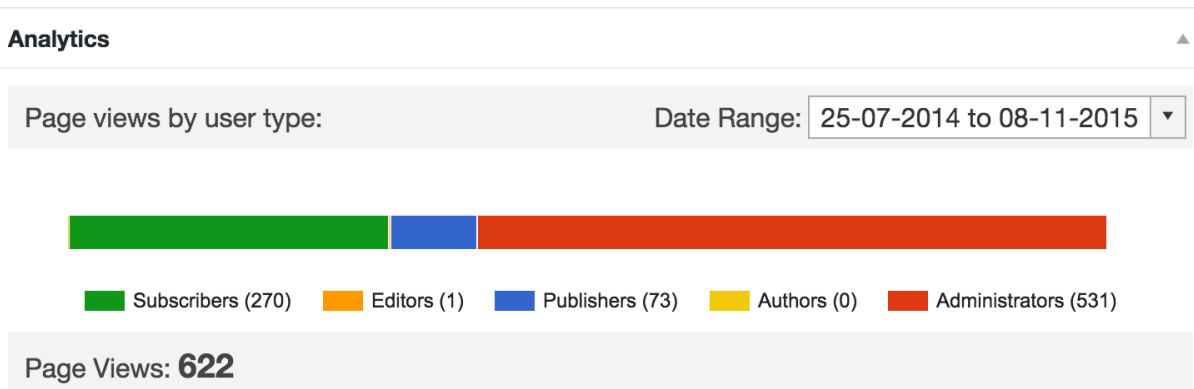
4.

Analytics date selector shortcuts

- Click the *Apply* button, and your desired date should show up in the date range field.

Results

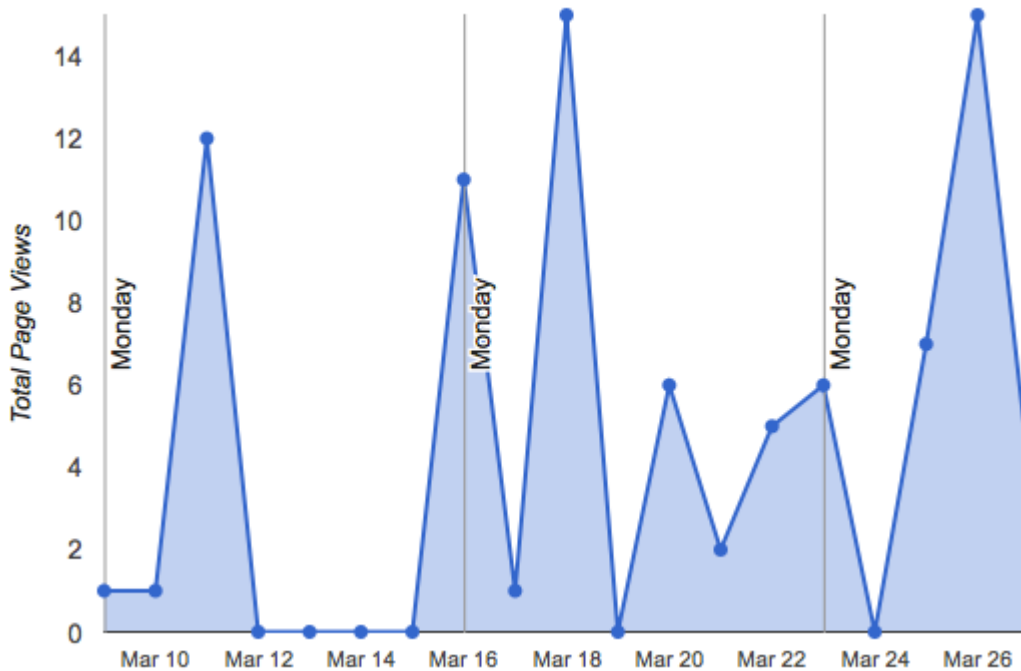
Average time on that content item (syllabus or module) is show. Also, breakdown of user types is shown in the multi-color bar (see below), along with numerical counts after each user types' label. If a user-type is missing, that merely means that type of user has not accessed your syllabus. Total page views is shown, which should be the sum of the user type totals.



View of analytics summary for module

A plot of usage view over time can be found further down on the Analytics tab view. This plot is spread over the range of dates you selected. If the plot seems too crowded, you can zoom in on it. Just drag the

mouse over the desired range of dates on the plot. If the plot is already zoomed so that individual days already appear, selecting a date range can move the date view earlier or later. Experiment a bit with this to get a feel for it!



Special Features for Syllabi Analytics

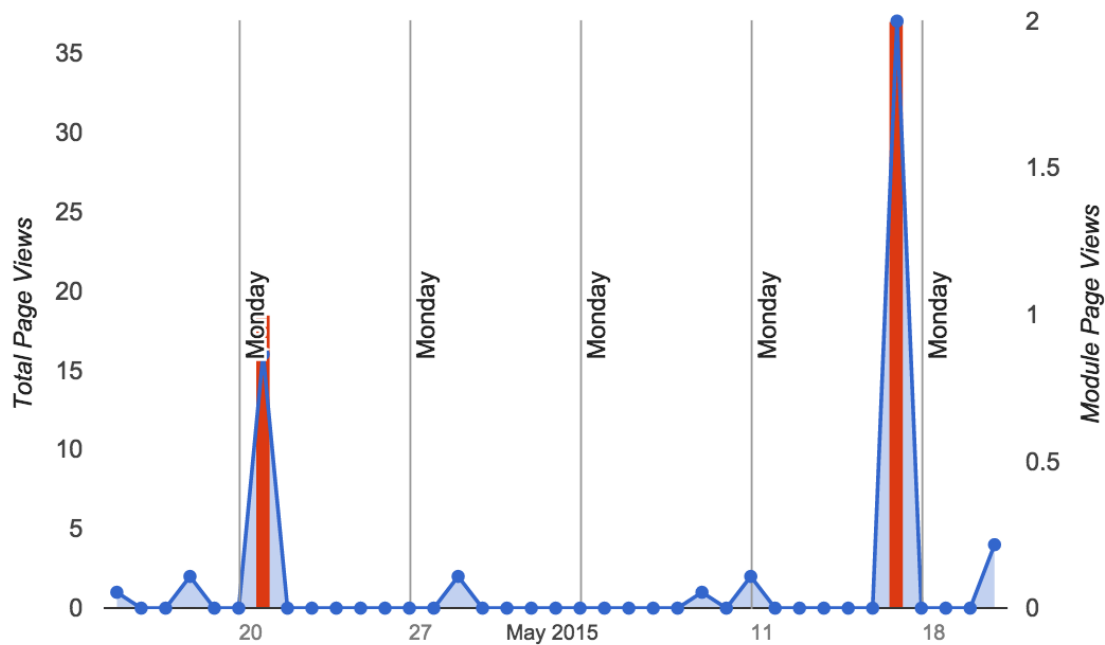
In the case of analytics for a syllabus, a view of page views by learning module is shown below (here, the term page refers to learning modules).

| Section # | Title | Page Views |
|-----------|---|------------|
| 1.1 | An Introduction to Alexandria's Structure | 7 |
| 1.2 | Ways to Compose for Alexandria | 8 |
| 2.1 | Finding Syllabi | 5 |
| 2.2 | Creating A New Syllabus | 10 |
| 2.3 | Editing Syllabus Sections | 6 |
| 2.4 | Adding Content to Syllabi | 1 |
| 2.5 | Publishing your Syllabus draft | 2 |

You can then see the views for each module per day on the plot. Simply click on the module title, and the results will appear on the chart by day. The red columns below are for a selected module.

Page Views: **65**

Zoom: Click, drag and release on graph to zoom in, right click to zoom out.

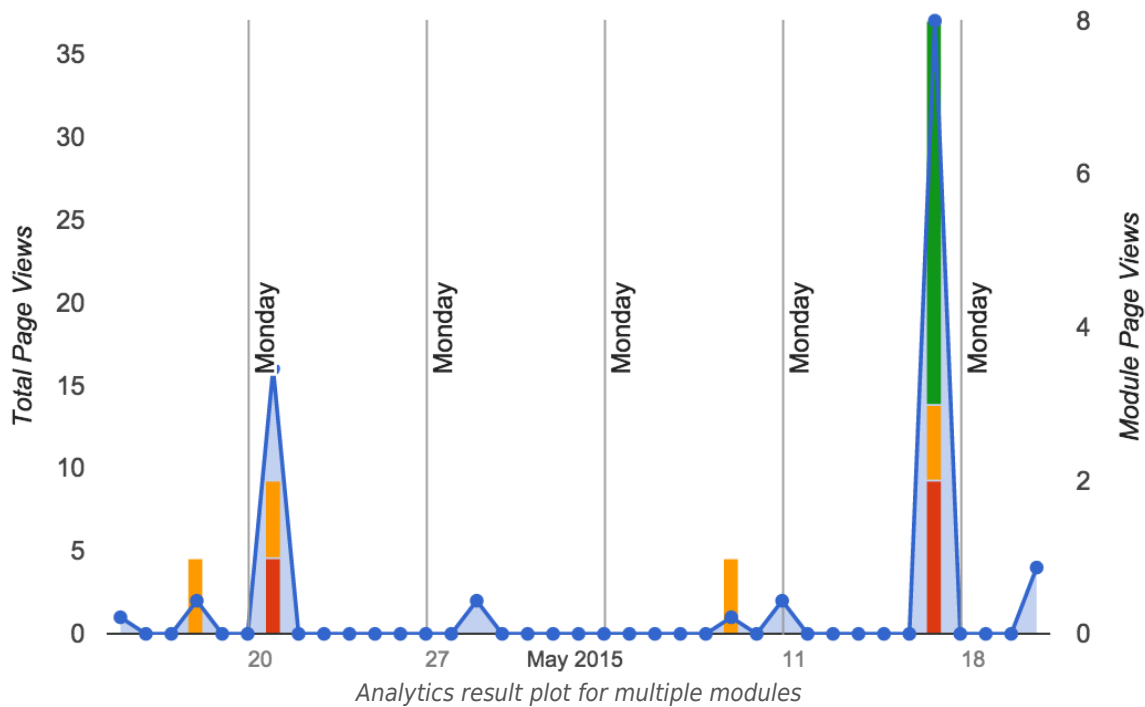


Module page views on chart

If you want to compare the results for different modules on a day-by-day basis, you can click on the title for several modules. The results for each module will show up as a different color.

Page Views: 65

Zoom: Click, drag and release on graph to zoom in, right click to zoom out.



Strategies

You can use various strategies to take full advantage of analytics. For example, you can search for one particular time range and take a screenshot of those results. Then you can choose a different range for the same content and take a screenshot of the later range results. This way, you can prepare a report providing a comparison of results over different periods, such as in January 2014 versus January 2015.

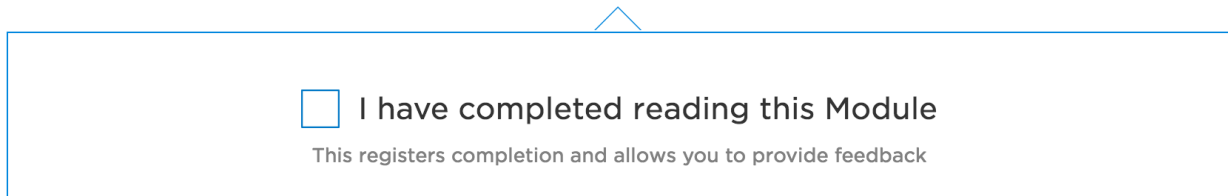
Also, by selecting particular time ranges, you might be able to determine out how much students are using your content for a particular assignment or lecture.

Likewise, peeking in at different small date ranges for the same content can allow you to literally "sample" usage to get an idea of the variation between user types over time.

As you can see, there are many ways to use Analytics to find out what you want to know about who is viewing your content, when and for how long.

11.2 Feedback and Sharing

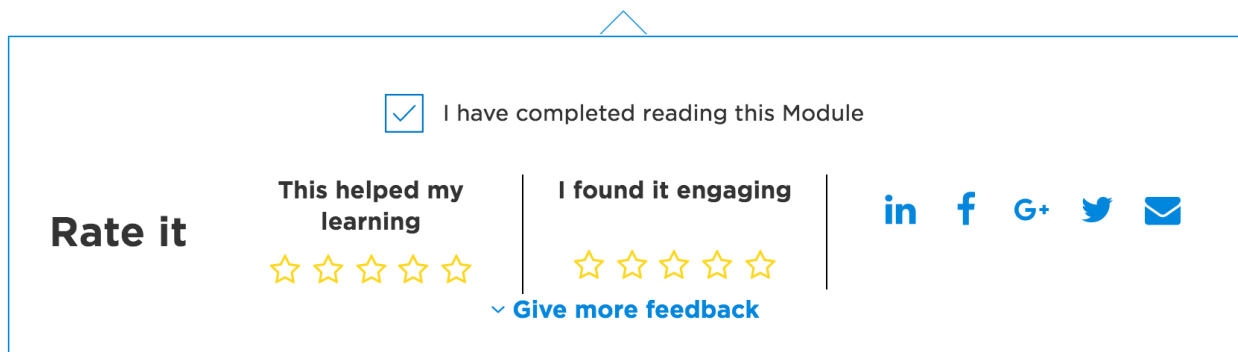
Alexandria is developing several means for feedback and sharing. This process begins when a student has indicated that they have completed reading a learning module. They indicate such by clicking the "I have completed reading this Module" box (see below image) in the footer at the bottom of a learning module.



I have completed reading this Module
This registers completion and allows you to provide feedback

Completed module

Once the "I have completed reading this Module" is checked, then feedback and sharing options appear. They can rate two statements "This helped my learning" and "I found it engaging" with one to five stars. They can also select "Give more feedback" and add their own comments (The Alexandria team is working to make this feedback available to authors). Students can also share links to the content via email and other means, such as a study group on Facebook or Google+. However, the recipient will need access to view the referred content (which will typically be the case for classmates).





I have completed reading this Module

Rate it

This helped my learning
☆☆☆☆☆

I found it engaging
☆☆☆☆☆

in f G+  

∨ Give more feedback

Feedback and sharing opportunities

12

End Matter, Additional Topics

[12.1 Alexandria Glossary](#)

[12.2 Alexandria Troubleshooting](#)

[12.3 Tips for Laptop Authors and Users](#)

[12.4 Strategies to Catch Up on Metadata Entry](#)

[12.5 Bulk Editing Syllabi and Learning Modules](#)

[12.6 "Tool tips" style captions for graphics](#)

The following include reference information and topics which do not fit neatly into another section.

12.1

Alexandria Glossary

This glossary concerns the particular usage of terms in the Alexandria system.

derivative work (or fork)

A *derivative work* is a duplicate of an existing work (such as a syllabi or learning module) that may or may not have been modified.

interactive

An *interactive* is a file that contains interactive content where the user can typically change parameters, run programs or do many of the types of things full computer applications can perform.

learning module

A *learning module* represents a related body of material around a particular, somewhat narrow topic. While a learning module could technically contain an entire treatise, it is intended to be targeted at a particular concept or group of concepts.

license

A *license* grants the use of some or all rights to a specified set of intellectual property.

media

Media are typically self-contained files of content, including images, videos, and documents.

Media Library

The *media library* is Alexandria's collection of uploaded images and other media that can be placed into syllabi and learning modules.

metadata

Metadata are data applicable to particular content, such as category, licenses and tags.

syllabus (plural: syllabi or syllabuses)

A *syllabus* is a means to organise learning modules into semantically larger groups, such as a for an entire course.

12.2 Alexandria Troubleshooting

This troubleshooting guide will help you overcome technical issues with Alexandria.

Embedded Media

The following problems sometime occur when embedding media. (Note that Alexandria is still under development, so procedures related to media may change.)

The content is missing

Check the original URL to make sure the original content is still there. If this is not the problem, check to see if the user has access privileges to the media. Private drives and directories often restrict what outside users can see.

Part of the media is cut off

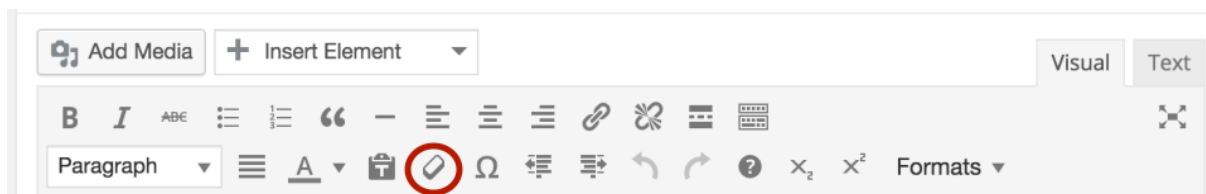
Check the zoom setting for the media. Try setting zoom to 100% if this is an option.

You can't enter meta data as desired

First upload the media into the Media Library and then insert it into your desired location in the content. This will give you a better opportunity to edit metadata more easily.

No Vertical Spacing Between Paragraphs

This can be caused by pasting material from other sources. To fix the problem, first try to click on the eraser (see below toolbar) which tries to remove formatting. If this does not help, AND you feel comfortable editing html code, click the "Text" tab, and edit out the problematic tags, such as "<div>". You can add " " in Text view to provide a linespace.



Alexandria Editing Toolbar with eraser tool

ePUB Legacy Procedure

1. Browse for and select your desired resources.
2. Order and organise them as desired.
3. (Optional) write your own introductions or transitions.

4. Click the Generate button.
5. Your customised, dynamic electronic textbook will be ready for use.

If you have an issue not covered here...

Click on the orange Support tab while in view/preview mode and let us know about your issue.

12.3 Tips for Laptop Authors and Users

If you use a laptop with a small screen, authoring with or using Alexandria, you may find yourself wishing you had more screen space. There are a few ways to help you do so.

Get More Horizontal and Vertical Space

If you need more horizontal space, collapse left side bar. To do so, you need to go to the very last side bar menu item. By doing so, obviously, you will create more horizontal space. Less obviously, you might be able to create more vertical space, since more horizontal space sometimes allows the format controls at the top of the content panel and the status box at the bottom to condense to fewer "lines".

See Hidden Features

Sometimes you can't see necessary features, such as the media search box, even though they should appear. This most often happens for features on the right side of panels. Stretching out (or maximizing) the window can often help make such features visible.

Organizing Views and Windows

Sometimes it is helpful to have many multiple browser windows open, but it is hard to see all of your windows, especially if you follow the above tip. The solution may be to open up the views using multiple tabs within a window. you will lose a bit of vertical window length, but it will be much easier to find your desired view.

12.4 Strategies to Catch Up on Metadata Entry

The only thing less fun than entering metadata is catching up on entering metadata. Indeed, catching up on entering metadata for perhaps hundreds of modules and syllabi might feel reminiscent of Dante's *Purgatorio*. Fortunately there are several strategies and tools for reducing the sheer quantity of that drudgery.

1. **Make entering licencing metadata a priority.** If you do not have time to enter anything else, just enter licencing data. If you or other Monash staff composed any of the content, then the license would typically be "Copyright © Monash University". If you used external content, include the licence for that as well.
2. **If time is short, don't worry about tags.**
3. **Starting right now, make sure to populate metadata when you create new content items,** and create an explicit exceptions list (e.g. where you might lack licensing data for a particular item). Then there will be less to catch up upon in the future, and deficiencies will be easier to locate.
4. **Use bulk editing for syllabi.**
5. **Use Attached Module tab bulk editing for modules attached to each particular syllabus** (one syllabus a time). This way you do not have to search for the modules. Also, all of the modules attached to a particular syllabi are more likely to have identical metadata (except for included media, which you may need to populate separately while in the Media Library).
6. **Prior to bulk editing, construct search criteria** for content where all of the same content will require the same metadata. Then you can edit it all at once.

Title Byline

BULK EDIT

- Second Law of Thermodynamics
- Expressing Supply and Demand Thermodynamically
- Supply and Demand
- Microeconomics
- Temperature
- First Law of Thermodynamics
- Heat Engines
- Thermodynamics

Categories

- Alexandria
- Arts
- Arts Leadership Development
- Astronomy
- Biomedical Sciences

Contains Media

- Code
- css code
- Edgy
- html code
- Java Code

Licenses

- © Trustees of the British Museum
- All Rights Reserved.
- CC Attribution 2.0 Generic (CC BY 2.0)

Bulk editing view metadata

12.5 Bulk Editing Syllabi and Learning Modules

Introduction

It is possible to bulk edit syllabi and learning modules. What this means is that you can select many content items and edit them all simultaneously with just a few clicks. This can be a fast and easy way to enter metadata such as licence and category data. There are two ways to bulk edit metadata.

Selecting content from All Syllabi or All Learning Modules dashboard lists

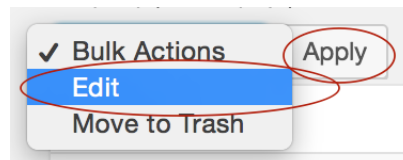
You can either go to the All Syllabi or All Learning Modules menu items, then follow these step:

1. Click the items you wish to bulk edit (or click box at top for all).
2. Chose action, e.g. "Bulk Edit".



Bulk actions button in bar

3. Click the Apply button.



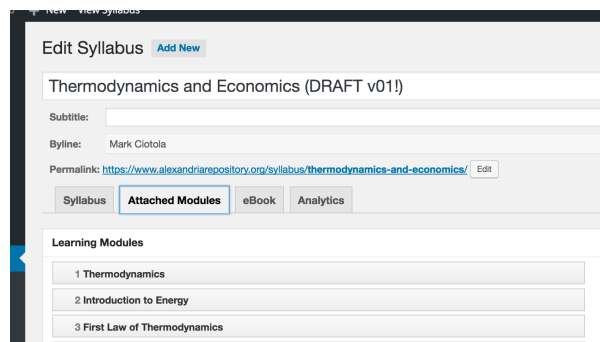
Bulk actions menu with edit choice

1. Make your edits (all selected content items will be changed).
2. Click (save?), and your items will be saved.
3. Note: each list page only shows 20 items, you may may need to repeat this process for multiple list pages.

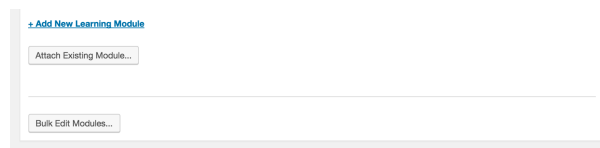
Modules Attached to a Single Syllabus

The second approach, specifically for modules attached to a syllabus, it to bulk edit under the Attached Modules tab for that syllabus. Follow these steps:

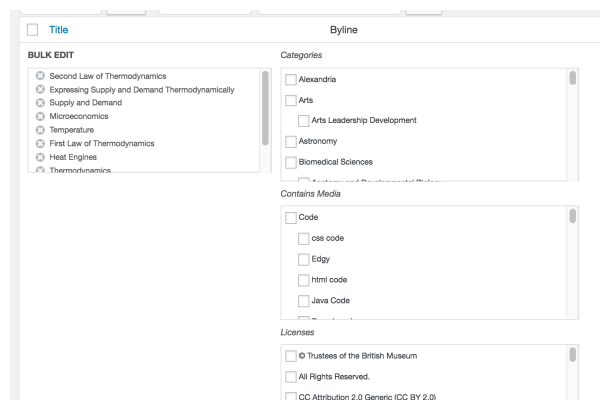
1. Got to the syllabus, then the Attached Modules tab.

*Attached modules tab*

2. Click the "Bulk Edit Modules ..." button.

*Bulk Edit Modules ... button*

3. Make your edits (all selected content items will be changed).

*Bulk editing view - metadata*

4. Click the Update button, and your items will be saved.

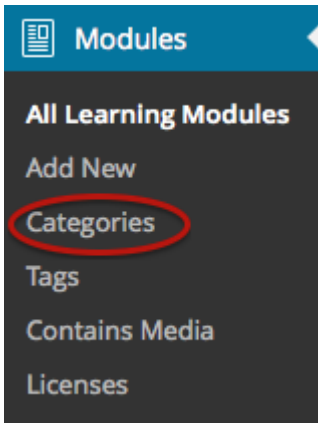
*Update button*

Note: each list page only shows 20 items, you may may need to repeat this process for multiple list pages.

12.6 "Tool tips" style captions for graphics

You can create pop-up captions (similar to tool tips) for your Learning Module images. When you embed the image, enter your pop-up caption text into the Title Attribute field. Then when viewers move the mouse over the graphic, your pop-up caption will appear.

For example:



A limitation is that the pop-up caption applied to the entire graphic rather than a specific or highlighted part of it. So if you desire multiple tooltips for a single image, you will need to break it down into smaller images.

13

Learning Module Examples and Templates

13.1 Learning Module Examples

[13.1.1 Learning Module Example-Basic](#)

[13.1.2 Learning Module Example-Embedded Media](#)

[13.1.3 Learning Module Example-Enhanced Interactivity](#)

13.1.1

Learning Module Example-Basic

(Heading 2 style) Introduction

(Paragraph style). System dynamics (SD) models are typically for deterministic of systems that change over time. They can describe the harmonic motion of a mass suspended by a spring, or the spread of an epidemic.

Examples of System Dynamics Models

There are several classic examples of systems dynamics models.

(Heading 3 style) Predator-Prey System

A famous example of a dynamical system is the predator-prey system. In that system, there are two species, one which preys on the other. The population of each species is dependent upon the population of the other species.

Mass Suspended on Spring

Another example is of a mass suspended on a spring. Tugging on the mass provides potential energy. So when the mass is released, it will move up and down. The position and velocity of the mass can be modelled as a dynamical system.

Activity

Use pencil and paper to conceptually understand and qualitatively draw the position, speed, motion of a mass suspended upon a spring over time at the following points in time:

1. When the mass is tugged.
2. After the mass is released, when the mass first reaches its original position.
3. When the mass reaches its greatest height.

Review Questions

1. What types of knowledge can be gained from studying dynamical systems?
2. What are the limitations of dynamical systems?

13.1.2 Learning Module Example-Embedded Media

Below are examples of various media embedded into a learning module.

(NOTE: the content in this module is not necessarily accurate or collectively relevant, but rather is provided to illustrate several forms of media.)

Introduction

This module is about models using System Dynamics (SD). System dynamics are typically for deterministic models of systems that change over time.

Image

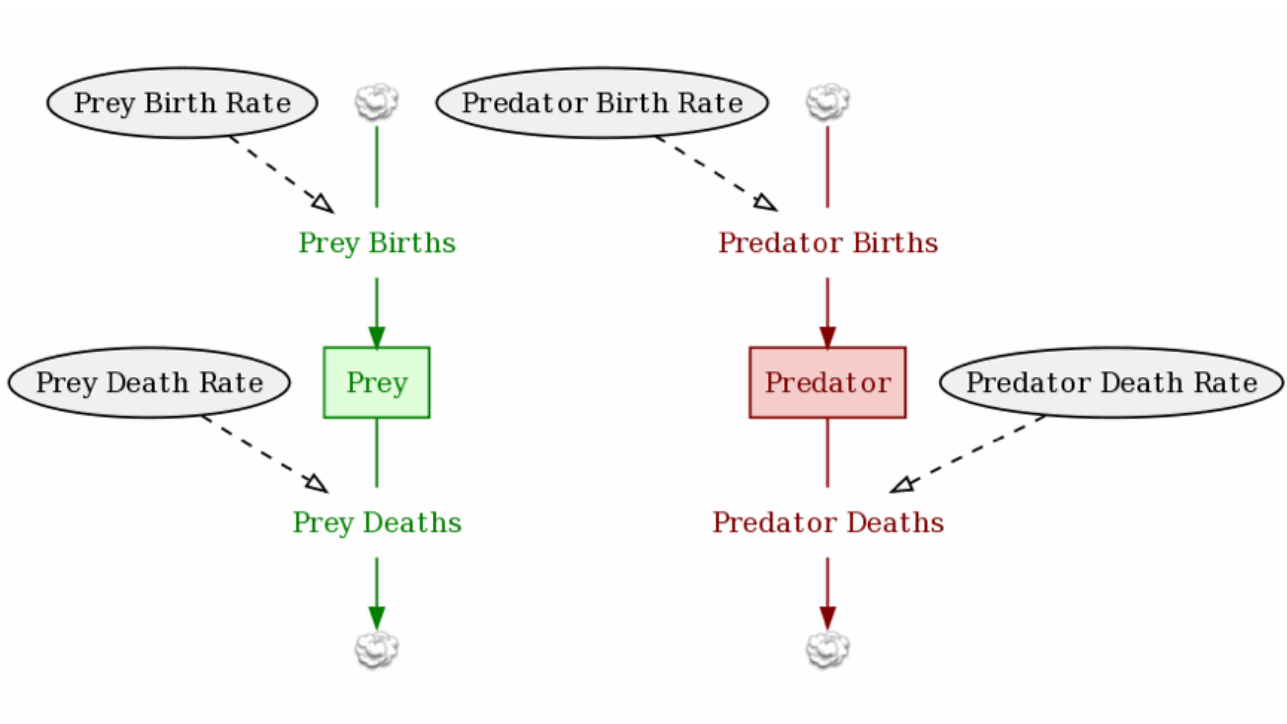
Leafcutter ants cut leaves and carry them to their nest to feed fungi. They then eat the fungi.



Leafcutter ants with vegetation (credit Flickr)

Diagram

Predator-Prey models are classical examples of dynamical systems.



Math

Mathematical formulas can be embedded using LaTeX short codes. For example:

$$\frac{dp}{dt} = r * \left(1 - \frac{p}{K}\right) * p$$

Google Document

[Show "Wk-7-Reaction-Diffusion.pdf"](https://docs.google.com/viewer?url=https%3A%2F%2Fwww.alexandriarepository.org%2Fwp-content%2Fuploads%2F2013%2F06%2FWk-7-Reaction-Diffusion.pdf&hl=en_GB&embedded=true)

(https://docs.google.com/viewer?url=https%3A%2F%2Fwww.alexandriarepository.org%2Fwp-content%2Fuploads%2F2013%2F06%2FWk-7-Reaction-Diffusion.pdf&hl=en_GB&embedded=true)

Matthias Vigelius, [Reaction Diffusion](#)

(<https://www.alexandriarepository.org/wp-content/uploads/2013/06/Wk-7-Reaction-Diffusion.pdf>) lecture slides (pdf)

Youtube Video

Now for the Enzyme Reaction

$$E + S \xrightleftharpoons[k_{-1}]{k_1} ES \xrightarrow{k_2} P + E$$

- $d[ES]/dt = k_1 [E][S] - k_{-1}[ES]$
- We are going to solve for $[ES]$
- Therefore $d[ES]/dt = k_1 [E][S] - k_{-1}[ES]$

(<https://www.youtube.com/watch?v=W9o4cQvbShU>)

Code

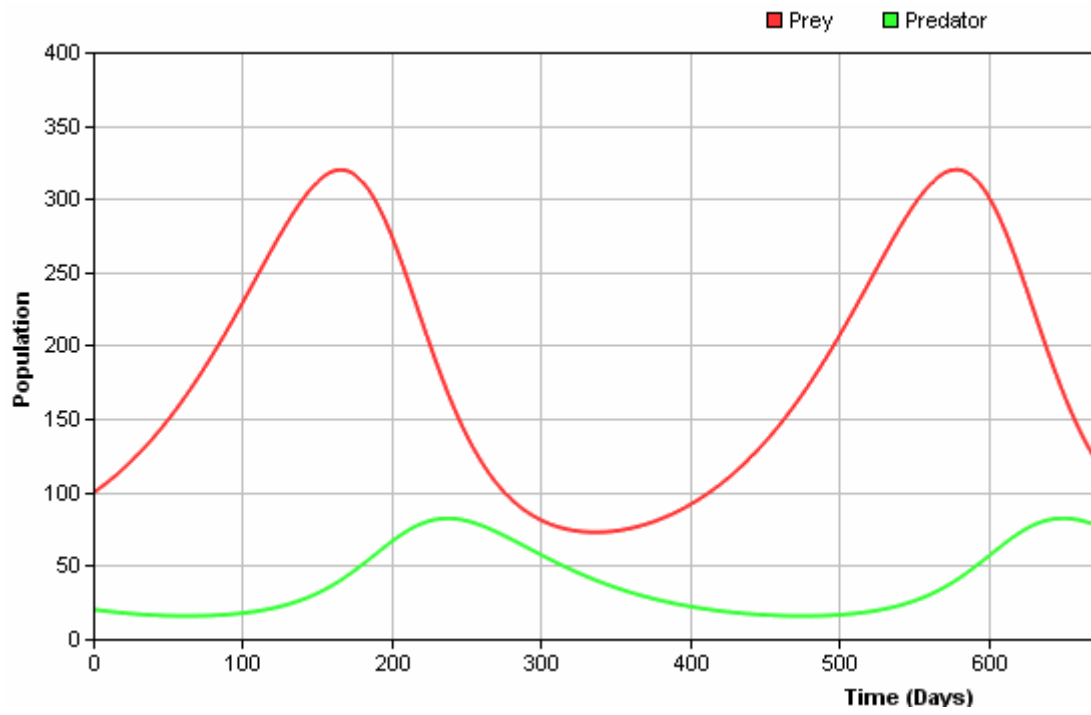
Evolutionary programming is a powerful tool. (Using Preformatted style below).

```

procedure evolutionary algorithm
begin
  t := 0;
  initialize P(t);
  evaluate P(t);
  while (t < t_max and not "good enough") do
    begin
      t := t+1;
      select P(t) from P(t-1);
      alter P(t) by crossover and mutation;
      evaluate P(t);
    end;
end.

```


Plot



13.1.3 Learning Module Example-Enhanced Interactivity

Introduction

This module is about models using System Dynamics (SD).

Content

System dynamics are for models of systems that change over time. They typically are for deterministic models, but can also be used for stochastic ones.

Simulations

Systems Dynamics decision model (Insight Maker):

[Show "Ant Foraging binary bridge \(Stochastic\) | Insight Maker"](https://InsightMaker.com/insight/4694/embed?topBar=1&sideBar=1&zoom=1)

(<https://InsightMaker.com/insight/4694/embed?topBar=1&sideBar=1&zoom=1>)

Bernd Meyer, Ant Foraging Binary Bridge (Stochastic)

Quiz

This section contains a quiz.

Start Quiz (<https://www.alexandriarepository.org/app/WpProQuiz/12>)

13.2 Learning Module Templates

[13.2.1 Using Example Modules as Templates](#)

[13.2.2 Learn-Do-Review Learning Module Template](#)

13.2.1 Using Example Modules as Templates

You can use the example learning modules as templates. Do so by simply creating a derivative (or "fork") of the learning module then editing the derivative as desired.

13.2.2 Learn-Do-Review Learning Module Template

(This template will help you set up a learning module using the Learn-Do-Review approach).

Learn

Replace this sentence with your subject matter content, such as notes, videos, images and slide presentations.

Concept 1

Replace this sentence with content concerning your first concept.

Concept 2

Replace this sentence with content concerning your second concept.

List

This is an example list (use the indent tool for levels):

- Asia
 - Indonesia
 - Malaysia
 - Kuala Lumpur
 - Kuching
- Oceania
 - Australia
 - Melbourne
 - Sydney
 - Fiji

Table

| | Continent | Country | City |
|--------|------------------|----------------|--------------|
| Asia | | Malaysia | Kuala Lumpur |
| Europe | | Germany | Hagen |

Do

Replace this sentence with interactive content such as a quiz or simulation.

Review

Replace this sentence with review questions or concluding notes.

14

Coming Soon

This section contains topics that are under development, to help let you know upon what we are working. However, you might not be able to view these topic write-ups yet.

14.1

Uploading Documents

You can upload various document types to Alexandria. You can even directly create learning modules from such uploads.

However, the formatting of uploaded documents may be altered, to achieve a balance between preserving the original style and maintaining the consistency of look and feel that makes Alexandria so usable.

Recently, improvements have been made so that more of the original formatting, such as **bold**, is maintained.

Here is a list of what might be changed:

- Special characters might disappear, such as for bullets.
- Anchors can be a hassle to work with or even delete.
- Tables might not be formatted as expected.

What does now come over includes:

- Bold face
 - Italics
 - Some tables
-