

EQUELLA®

Overview Whitepaper

Version 6.2

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Pearson

Pearson is the world's leading education company, offering collaborative teaching and learning solutions for on-campus, online, and blended learning environments. Our award-winning educational technologies, including EQUELLA, are used by millions worldwide because we ensure our products are easy-to-use, client-driven, scalable, and reliable.

The EQUELLA solution plays an important role in Pearson's strategy to provide technologies that mediate the rapidly expanding use of digital resources across global education markets.

EQUELLA is positioned as a digital repository and learning content management system and is used by a wide range of schools, districts, universities, community colleges, state systems and departments of education, government agencies, and corporations worldwide.

The EQUELLA Solution

EQUELLA, a digital repository, enables you to search, create, manage and share content, providing one system to suit the needs of your teaching and learning, research, media and library content.

EQUELLA's functionality and flexibility is well-demonstrated by the many ways in which it has been implemented. As well as being used to more effectively manage teaching and learning resources, EQUELLA has been deployed for copyright resource collections; research materials; managing and exposing materials through web sites and portals; content authoring; workflow; institutional policy and organizational resources.

EQUELLA has been designed and developed through extensive collaboration, customisation, and interoperability with institutions, ensuring its suitability for educational markets. This award-winning software is being used worldwide in schools, universities, departments of education, community colleges, as well as government and training institutions. It is evolving the way educators teach online, and also the way students learn with digital resources.

EQUELLA supports version control, has a rich suite of APIs, a fully customisable taxonomy engine and rich search capabilities (including, but not limited to, Boolean, fuzzy, wildcard and proximity). A robust reporting engine, coupled with Google Analytics, will allow both teachers and administrators to track the use of content in many creative ways. As the eLearning landscape continues to evolve, EQUELLA provides significant advantages to schools by delivering teachers and wider institutional communities with access to a centralised digital repository.

Enabling a more flexible, collaborative way to develop an institution-wide repository, EQUELLA will deliver content in the way the educator requires, whether that is through powerful searching or curriculum outcomes. Digital rights management and copyright compliancy protect institutions, removing barriers and concerns associated with sharing, reusing and presenting learning resources licensed from third party providers.

As a customisable solution, EQUELLA complies with all major standards, is designed to IMS specifications, and is SCORM compliant. EQUELLA also enables seamless integration with leading learning management systems (LMS) including Pearson LearningStudio, Fronter, Moodle, Blackboard Learn, Sakai and Desire2Learn, with several others in development. EQUELLA can integrate with multiple LMS systems, while at the same time making it the ideal choice for systems that may be running more than one LMS for any period of time.

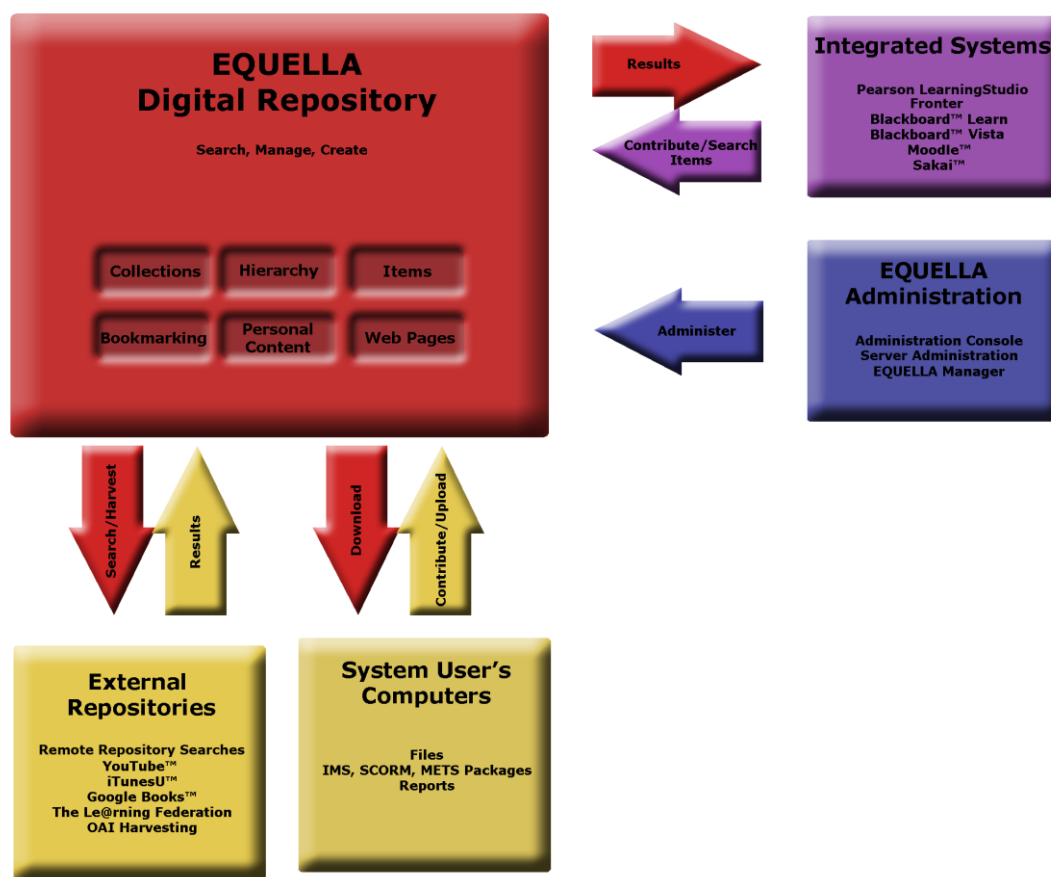


Figure 1 The EQUELLA Solution

EQUELLA Digital Repository

The EQUELLA Digital Repository is a flexible digital library capable of storing, managing and creating a variety of custom item types and associated attachments or digital objects.

Electronic resources within the repository can be simple descriptive text, learning objects (IMS, SCORM and METS packages), images, sounds, videos, PDFs, Microsoft Word™ documents, ZIP files, web pages, journal articles, book chapters, links to items, file and web pages, and much more.

Among its many features the EQUELLA Digital Repository supports:

- collections with customised data entry wizards;
- flexible XML-based metadata schemas;
- basic or complex scripted workflows;
- full document versioning;
- simple through to full metadata-based searching;
- storage of resources in a personal area;
- on-the-fly creation of web pages;
- copyright management of activated items;
- attribution of digital rights to content;
- active user-based notifications;
- attachment MIME type definition;
- automatic creation of thumbnails for uploaded images and PDFs;
- conversion of documents to HTML;
- selection of taxonomy terms from EQUELLA or an SQL data source;
- searching of external data remote repositories;
- flexible editing of permissions for all facets of the application;
- multi-language configuration and display customisation;
- extensive support for many well-known standards;
- seamless integration with a variety of third-party systems; and
- harvesting of collections, individual items ,third-party source and Learning Federation content.

These powerful features are configured and managed through EQUELLA's user-friendly Administration Console. Using the Administration Console, your institution's administrators are given total control to model your business process, define your own roles and customise the layout of EQUELLA.

EQUELLA provides a user-friendly interface for users to search, create, store, manage, view, and share content.

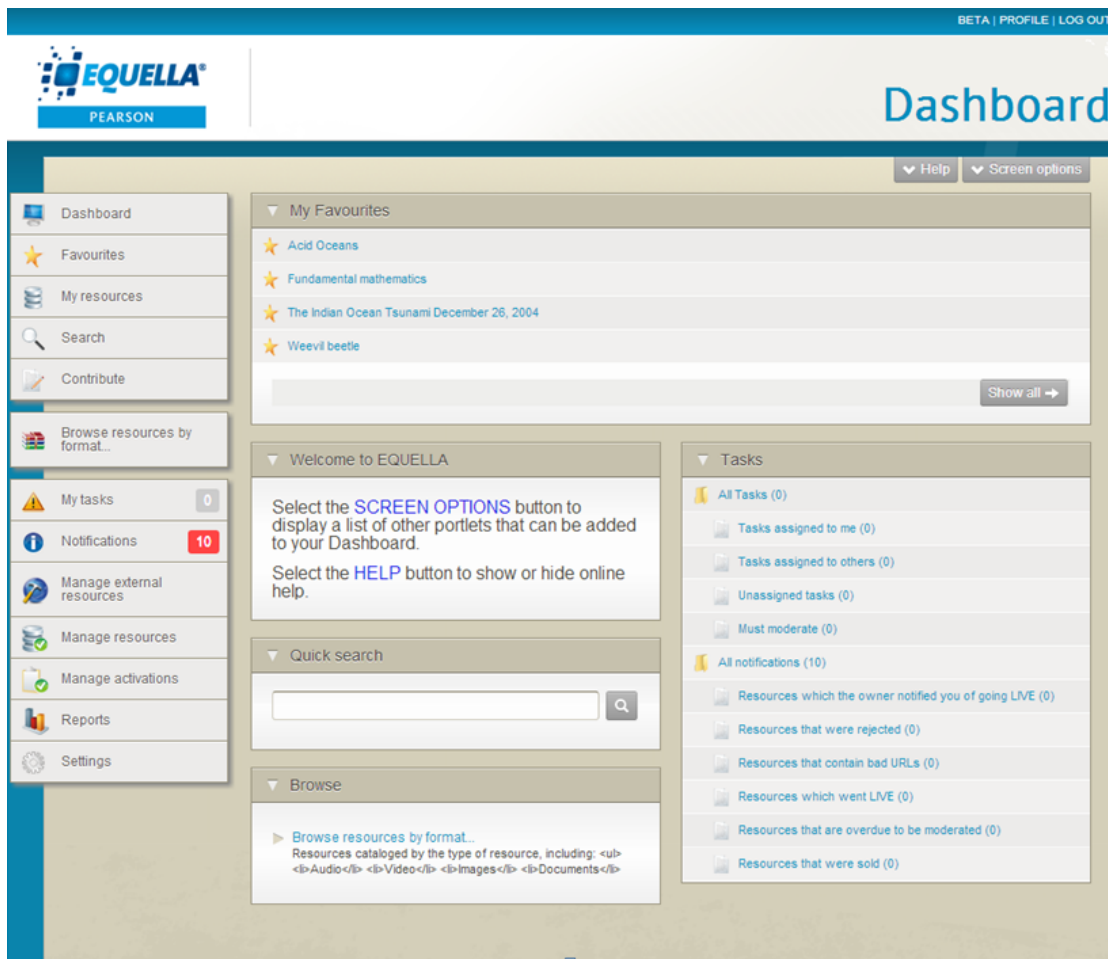


Figure 2 User's view of the EQUELLA Digital Repository

The user's Dashboard page is customisable and typically displays portlets in the central pane that provide a summary of the available content and links to access that content.

The Dashboard page portlet types include: Browse, Favourites, Formatted text, My resources, Quick search, RSS or Atom feed, Recent contributions, Scripted, Tasks and Web page portlets.

Metadata, wizards and collections

The principal entity used by the EQUELLA Digital Repository is the 'collection'. A collection represents a unique container to store items within EQUELLA. Items include simple types, such as Word™ documents, learning objects and items of curriculum, through to more complex multi-document types, such as lesson plans, learning sequences and online modules.

Each collection contains a metadata schema and a contribution wizard. In addition, collections can also include:

- a workflow definition;

- access control rights;
- display template rules; and
- copyright and digital rights management (DRM) controls.

Collections are configured and managed using a Collection Definition Editor in the Administration Console.

Metadata schemas

Collection metadata schemas are defined using XML; allowing the system administrator complete flexibility for defining new system item types. This flexible approach allows EQUELLA to support all major metadata encoding schemas as well as any internal schemas that an institution uses. Metadata elements are mapped to one or more wizard controls that are used to create wizard pages. A sequence of wizard pages constitutes a contribution wizard. These wizards are used to collect the required metadata as part of item contribution.

A contribution wizard interface can comprise a large variety of different control types ranging from simple edit or checkboxes through to shuffle boxes and shuffle lists.

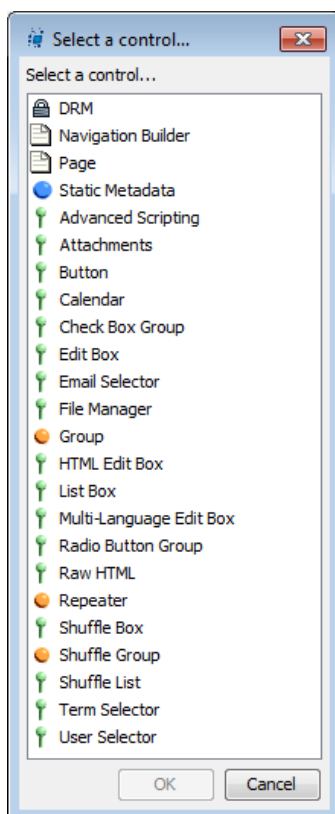


Figure 3 Supported wizard controls

Bulk metadata management

The popular features of the EQUELLA Metadata Utility (EMU) deliver enhanced bulk metadata management capabilities. This capability enables users to view items, update, replace and add text to metadata nodes. Users will also be able to bulk edit every metadata node, ensuring seamless metadata management.

Users have the ability to perform the following actions; edit metadata, including: find and replace one or more nodes, set text to specified nodes, specify xml to be added to the selected node, and are also able to execute script across the selected items.

Contribution wizards

The contribution wizard is highly flexible and scriptable, allowing wizard controls to change according to the type of user; the position of the item in the moderation process; or according to metadata values already provided within the contribution process. The configuration, appearance and sequence of wizard pages can all be customised. During the creation of the contribution wizard, all controls and pages can be previewed in the Administration Console.

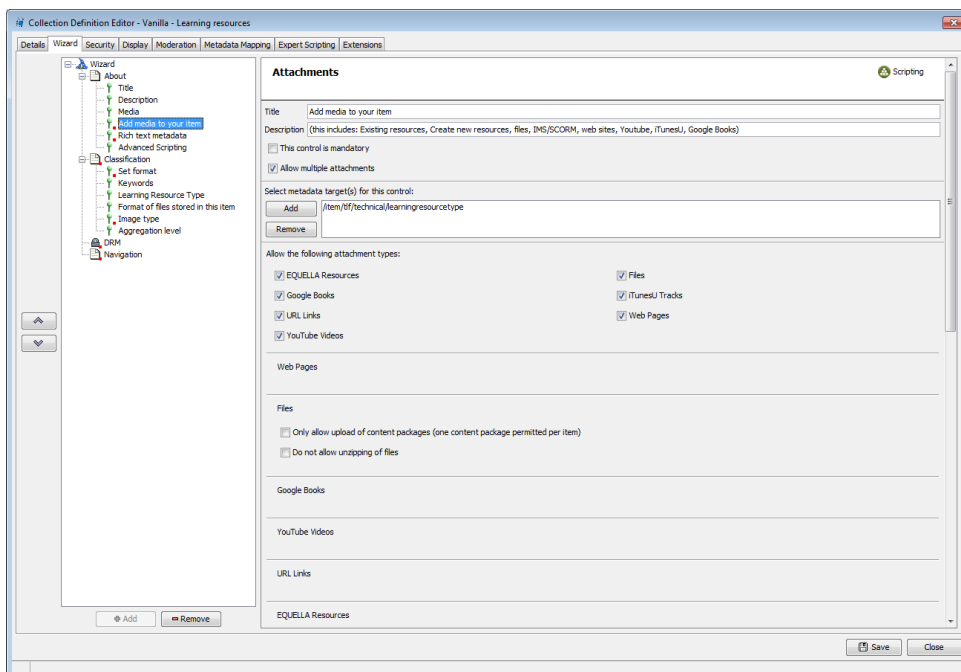


Figure 4 The Collection Definition Editor wizard

In the EQUELLA Digital Repository, collections are logically categorised and presented in a two-level tree structure. Users select the appropriate collection for the type of item that is to be contributed. This automatically generates the relevant contribution wizard.

Learning resources | EQUELLA - Windows Internet Explorer

http://localhost/vanilla/access/runwizard.do?wizid=4d638118-6d9d-7a8c-0bbc-b67863f21763&pages.pg

Google

INT DEMOSYSADMIN | PROFILE | LOG OUT

EQUELLA®

PEARSON

Learning resources

Contribute > Learning resources

Save

Preview | Cancel

About

Title *

Please enter a title for this item (words in the title have a high search rank)

EQUELLA Certification Program Overview

Description

Please enter a short optional description which will be displayed with the item

The EQUELLA Certification Program is designed to equip users with the skill set to interact with EQUELLA effectively

Media

Please select the media to attach to your item

☒ Media

☐ Rich text metadata

☐ Navigation

☒ Classification metadata

☒ Digital Rights Management (DRM)

Add media to your item

(this includes: Existing resources, Create new resources, files, IMS/SCORM, web sites, Youtube, iTunesU, Google Books)

Certification Programme EQ201.pdf

Edit | Replace | Delete

Add a resource

NEXT

Figure 5 An EQUELLA contribution wizard

The contribution wizard prompts contributors for metadata relevant to the items being contributed to the EQUELLA Digital Repository.

In addition to collecting metadata information, a contribution wizard allows users to:

- upload individual, multiple and zip files;
- import IMS, METS and SCORM packages;
- add YouTube™, iTunes™ U and Google books™ content;
- search and retrieve taxonomy terms stored in EQUELLA or a separate SQL data source;
- select existing user and email addresses;
- organise uploaded content with a navigation tree;
- add URL links; and
- create HTML pages.

The user's view of a contribution wizard will vary depending on the type of controls used, the metadata values entered, an item's position in the workflow and the system role of the contributor.

Moderation workflows

The EQUELLA Digital Repository supports powerful and flexible review and moderation workflows that allow an administrator to restrict the publication of an item until it has passed through the workflow. Workflows are associated with a collection and can be a simple one-step or complex multi-step editorial and technical review.

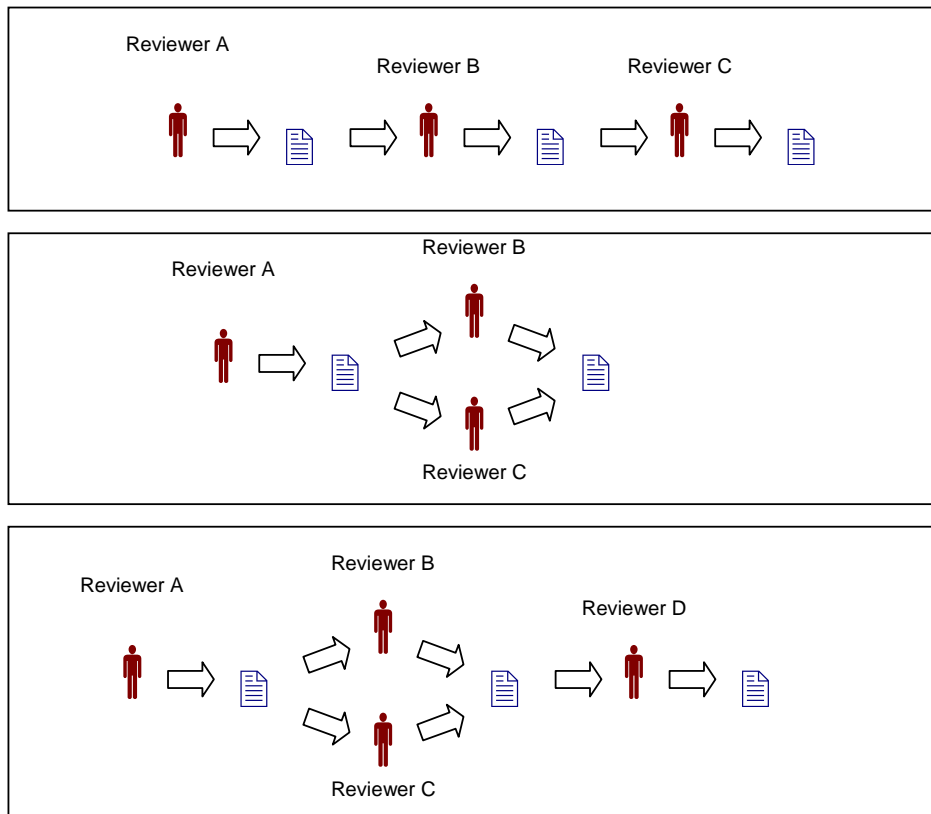


Figure 6 Sample workflow options within EQUELLA

Items enter the workflow when they are contributed or published to the repository. Moderation may involve reviewing the item, reviewing previous versions of the item, supplying additional expert metadata and ultimately accepting or rejecting the item for inclusion in the repository.

An individual workflow can have multiple steps requiring contributed items be reviewed by groups of different individuals at different levels within an organisation.

Workflow steps can be scripted allowing for conditional, branched workflows. An administrator can define rules that allow moderators to view items based on user type and/or metadata supplied during the contribution process.

Workflow within EQUELLA is defined using a workflow template that comprises a series of steps, each associated with one or more moderators. A workflow template can be applied to any number of collections.

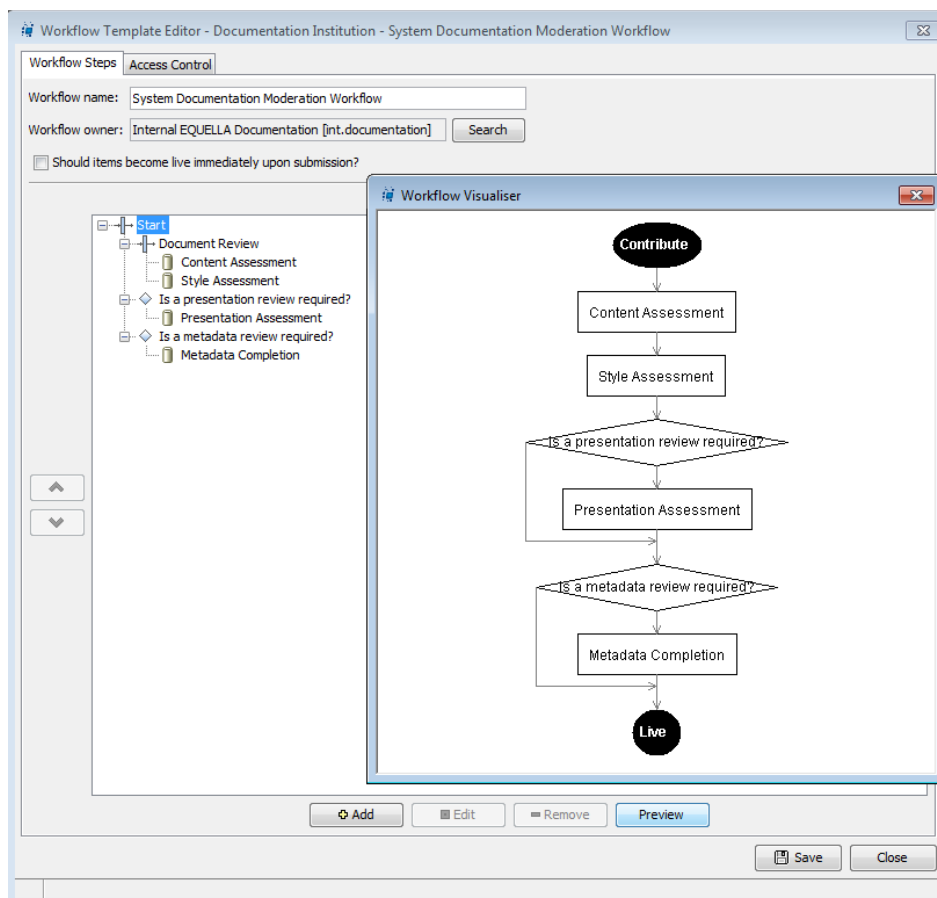


Figure 7 Workflow Template Editor with Workflow Nodes and Diagram

Configurable properties define the options associated within a workflow step. These include:

- requirement for unanimous acceptance (in the case of more than one moderator);
- escalation periods;
- ability to auto-assign; and
- locking fields that control item editing during the moderation process (required for metadata enhancement).

Complex branched workflows can be created by associating each workflow step with a script constructed within EQUELLA's Script Editor.

Items can be selected to 'go live' (be available to users of the repository) at any point of the workflow while still allowing the workflow to continue. This flexibility allows an administrator to ensure that selected documents can be made available to users quickly without sacrificing review steps. This is particularly useful when the workflow is used to undertake optional metadata enhancement.

Notifications and task list

EQUELLA uses a series of proactive notification strategies within a workflow. A Tasks portlet can be conveniently displayed on the EQUELLA Dashboard page to notify users of

the number of outstanding items requiring review or moderation and when new items are published or have been rejected.



Figure 8 A Tasks portlet notifying the user of tasks to perform

Moderators have the ability to search and sort the Tasks list results and filter by collection, owner and assignment type.

Rejected items have the moderator's reasons attached and notification is sent to the original contributor. The contributor can reject or modify the item and resubmit.

Additionally, email notifications are received by a designated user or group if a moderation task is not completed within a set period.

Moderators have the ability to search and sort the Tasks list results and filter by collection, owner and assignment type. Workflows in EQUELLA establish a quality assurance process for content that ensures its value to users. The repository has introduced new enhancements designed to improve the usability of existing functionality, including:

- Notifications via RSS and Email
- Task commenting
- Manual escalation dates
- Task Management

To create a new workflow template, the user will access the Workflow Task Editor, which has changed since EQUELLA 5, combining existing functionality and new features onto the Details page, while the Moderators page has remained untouched. The Automatic Assigning page has been removed, with this process now happening without configuration.

Item version control

The EQUELLA Digital Repository allows an item to have multiple, associated versions; enabling items currently in use to be modified and reviewed without impacting on their use. This provides the educator with the ability to review the new version before including

it in their course or enables a creator to update their version of the item after it has been added to the repository.

EQUELLA manages multiple versions of an item and during its life within the repository, an item can go through a variety of states.

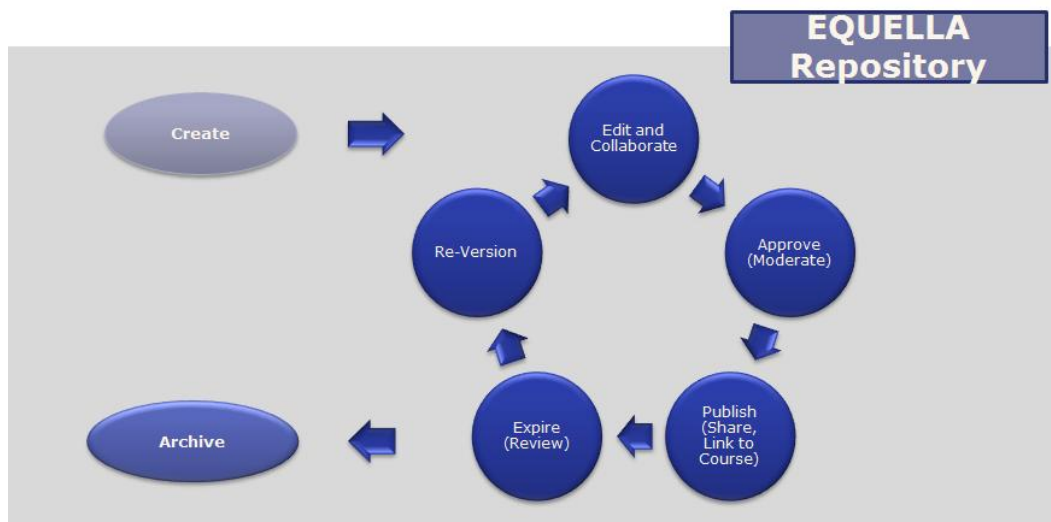


Figure 9 Item lifecycle

During the workflow a moderator can optionally review all previous versions of an item.

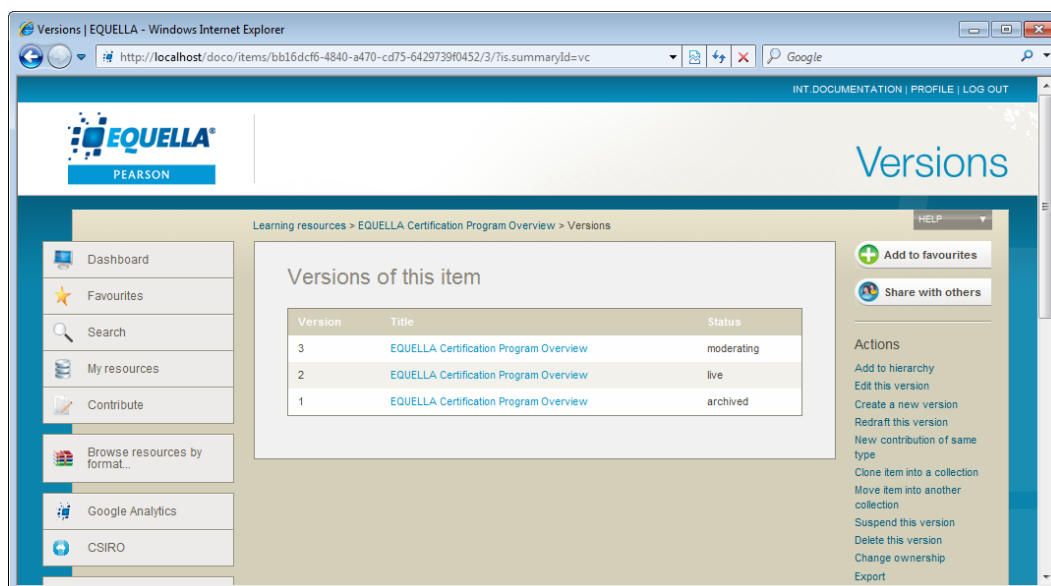


Figure 10 Displaying all versions of an item

Versions can also be suspended, rendering them inaccessible to users; this is useful when the original content of the item is incorrect, out of date or misleading.

Search, browse and bookmark

The EQUELLA Digital Repository provides powerful inbuilt search and discovery features. Educators can discover existing items and resources via a browse or search interface, while customised advanced searches allow for searching based on metadata.

Search results can be shared, added as course content and used to create items.

The EQUELLA Digital Repository search types include:

- Keyword and collection
- Hierarchical browsing
- Advanced (advanced metadata)
- Remote repositories (external)

Users can also search for their content through:

- Favourites
- Tasks
- My resources

Keyword and collection searches

The search interface provides simple access to collection-specific, advanced or remote repository searches. Auto completion search functionality allows each user to complete a search that is quicker, more intuitive, and efficient.

This simplifies the process of searching, which enables new users to quickly discover content using the search portal. The more inclusive search results present users with different choices when searching; including some they may not have originally anticipated. Additional intelligence that has been built into the searches, for example, word stem recognition identifies variants of words and returns additional results for the alternate wording.

EQUELLA's searching capabilities enable the user to tailor properties of the EQUELLA search, including the boost value (or importance) of the title, metadata or attachment. Each can be specified, which affects the relevance score and therefore the results when a user enters a search term.

The ability to configure boosting factors to allow for the content title, metadata and attachment content to be adjusted aims to strengthen the search and discovery of the content. If, for example, the content is not being searched at all, the configuration of boosting factors can make the content 8 times more relevant.

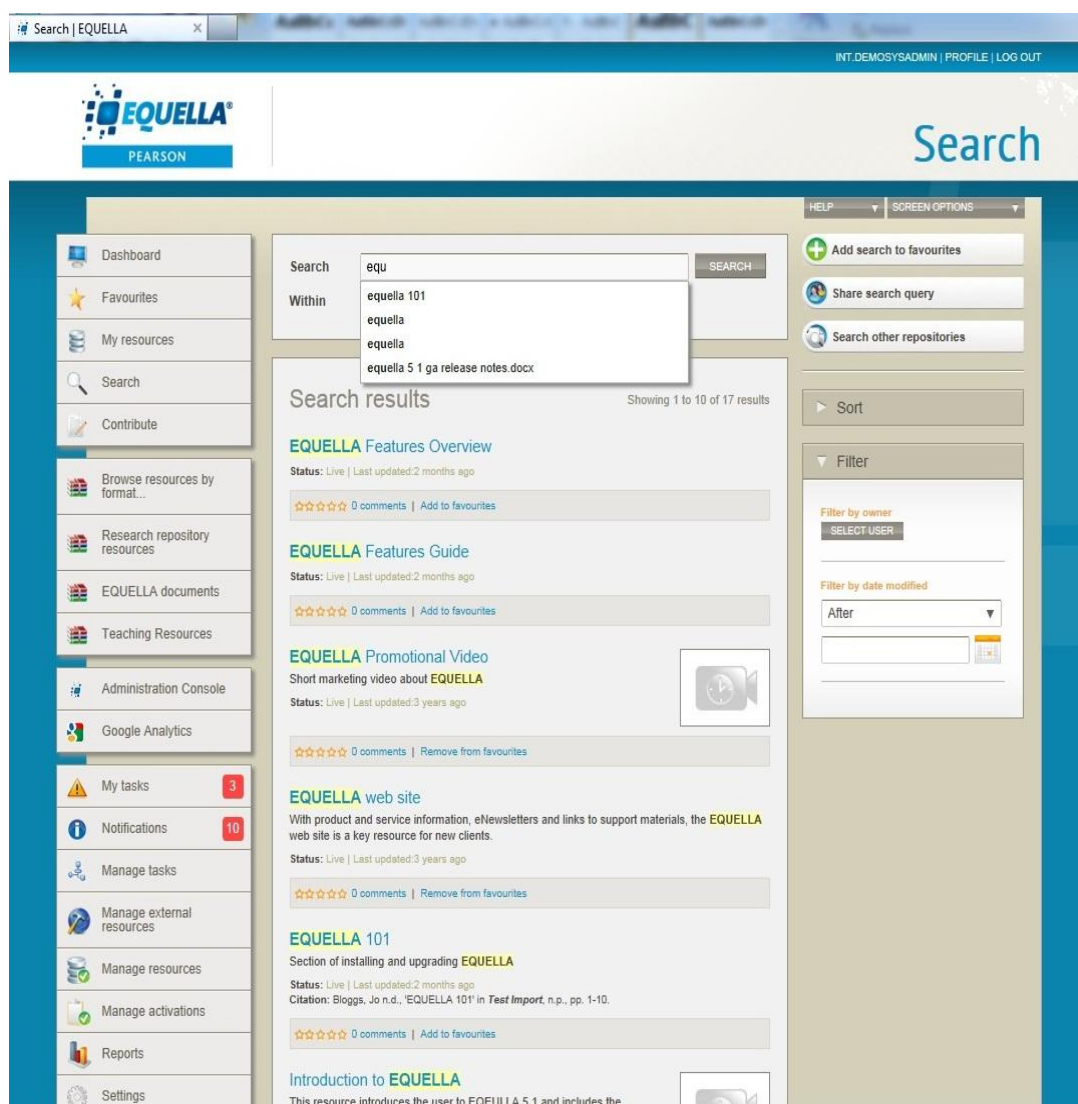


Figure 11 Auto complete search functionality

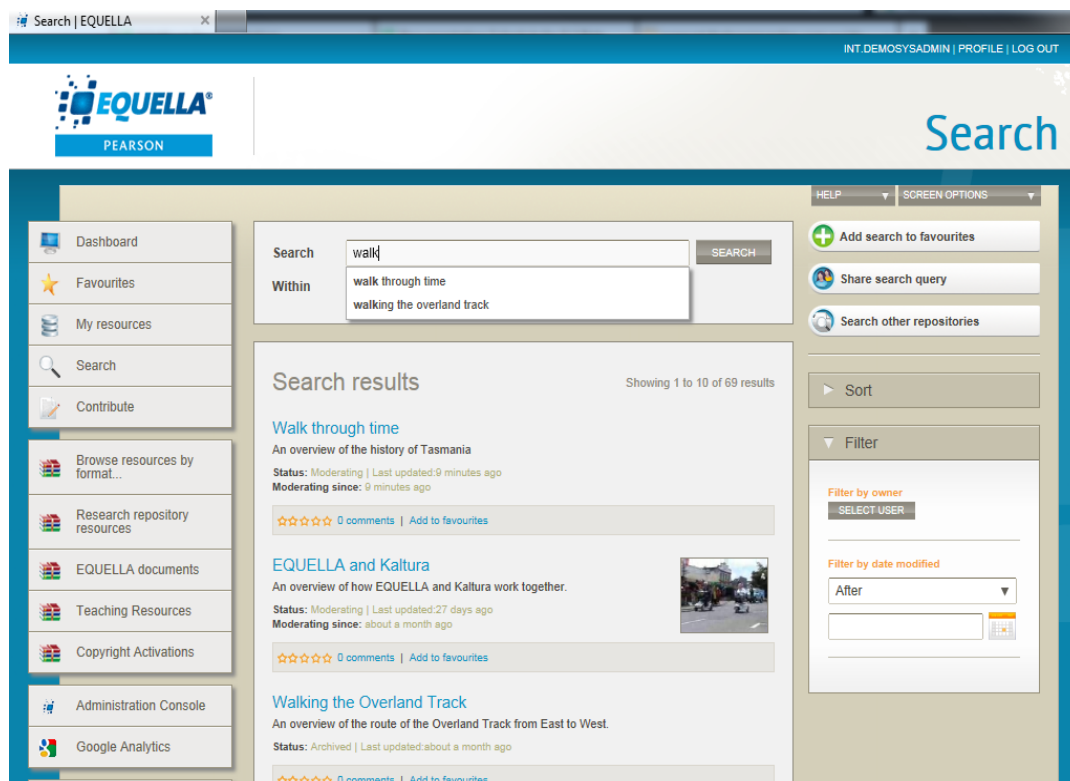


Figure 12 Word stem recognition provides additional search results

Users can search for items from all collections or restrict their searches to a selected collection. While search queries can contain optional Boolean logic to target keywords associated with items.

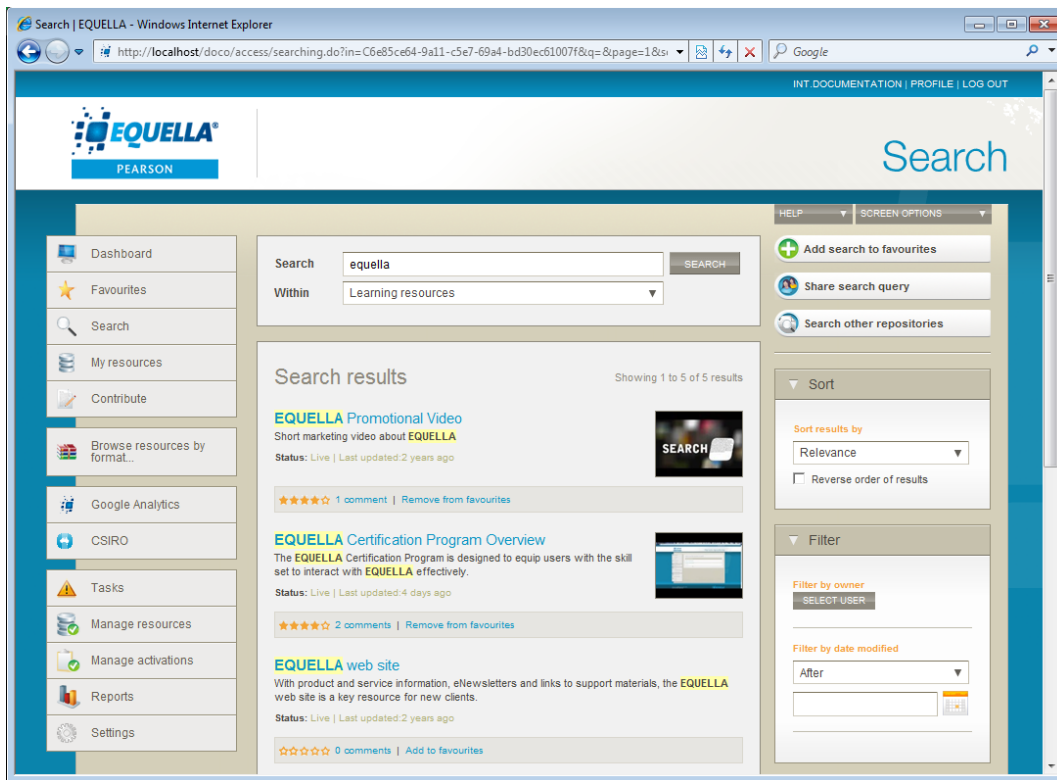


Figure 13 Search results page

From within search results, a user can: find all discoverable items matching the search criteria; sort results by date modified, relevance, title or rating; or filter results by owner, date, or attachment type. Search results can be saved to the users Favourites list for future use and shared with other EQUELLA users.

The information displayed in search results can be customised for each collection.

Any results page in EQUELLA, where a search term has been entered, will display a Relevance score for each result, to indicate the most relevant and useful content. If the search terms, e.g. keywords have been located in the content attachments, a notification displays beside the relevance score to indicate this additional connection to relevance.

Additionally, toggling the attachment search option allows individual users to set whether they wish attachments to be searched when they are entering the search terms. This will display in a search attachments checkbox, and can be accessed directly from the Search page.

Advanced search

Advanced searches are customised searches specified by the administrator that can traverse multiple collections as they are based on specific metadata fields. The fields displayed will vary depending on the configuration. It makes searching for particular items easier and can be targeted to specific users, groups or roles.

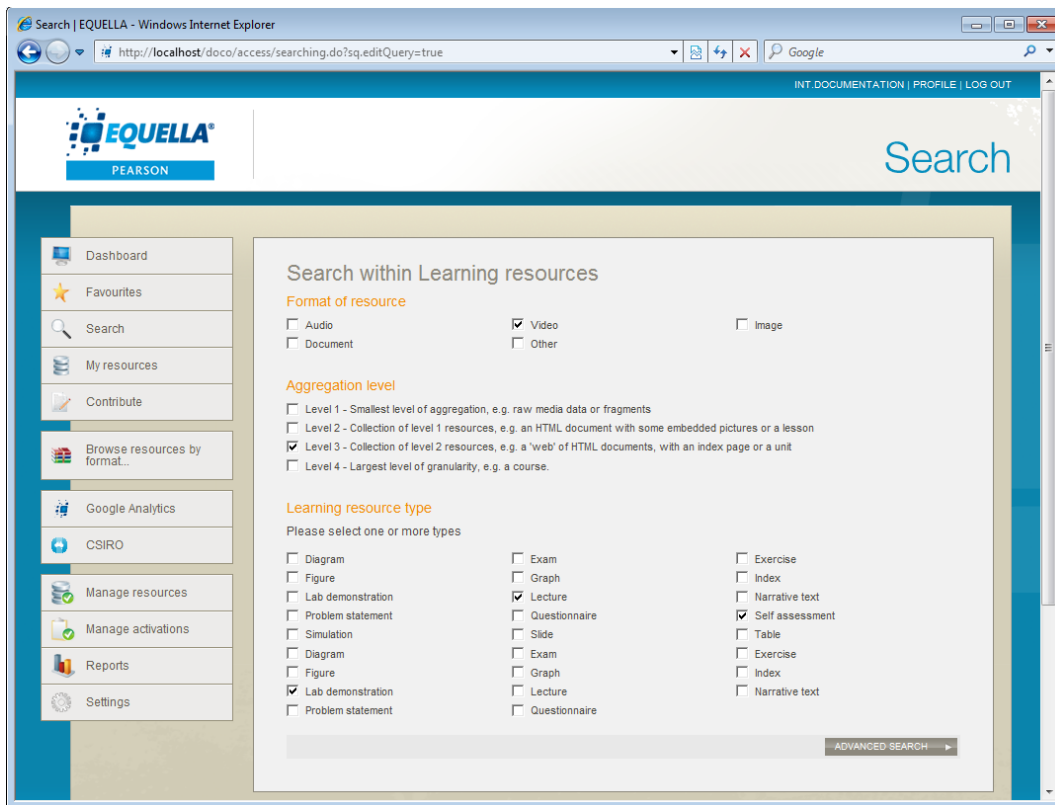
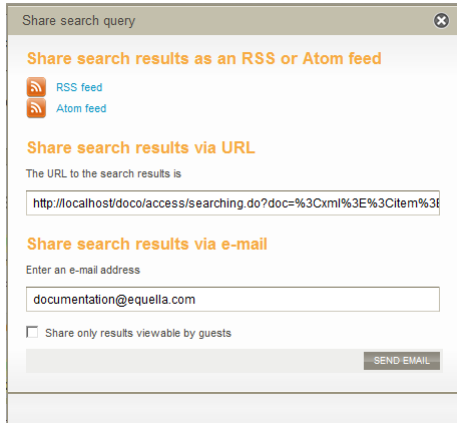


Figure 14 Advanced search page

Save and share search results

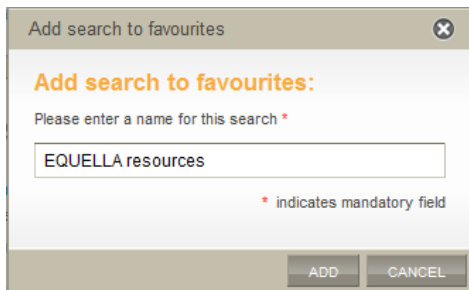
EQUELLA's keyword, collection and advanced searches support sharing search results with others. Search results can be shared as an RSS feed, Atom feed, via e-mail and URL.



The 'Share search query' dialog box has a title bar with a close button. It contains three sections: 'Share search results as an RSS or Atom feed' with 'RSS feed' and 'Atom feed' options; 'Share search results via URL' with a text field containing a URL; and 'Share search results via e-mail' with an 'Enter an e-mail address' label, a text field containing 'documentation@equella.com', a checkbox for 'Share only results viewable by guests', and a 'SEND EMAIL' button.

Figure 15 Share search results page

Search results can also be saved for future use.



The 'Add search to favourites' dialog box has a title bar with a close button. It contains a section 'Add search to favourites:' with a label 'Please enter a name for this search *' and a text field containing 'EQUELLA resources'. A legend indicates that '*' indicates a mandatory field. At the bottom are 'ADD' and 'CANCEL' buttons.

Figure 16 Save search results page

Hierarchy browsing

In addition to searching, the EQUELLA Digital Repository allows the administrator to define and control access to a hierarchy of logically-grouped resources, including distributed management of hierarchy subsections to multiple administrators.

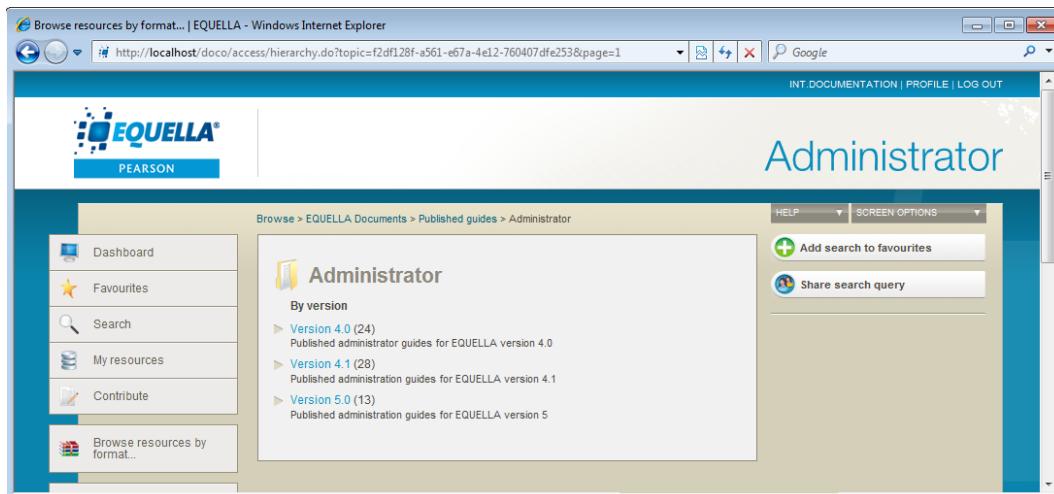


Figure 17 Browsing view

Hierarchical browsing allows users to discover items placed within the digital repository based upon category. Users can 'drill down' into topics and their subfolders and search within the results. EQUELLA can be configured to provide a count of subtopics and results and allow contributors to add their most important items to a hierarchy topic.

Bookmarking

EQUELLA provides a bookmarking feature called Favourites. It allows users to add items they have found to their personal list of favourites. Additionally they can save the results of central searches. Users can sort, filter and manage these items and searches.

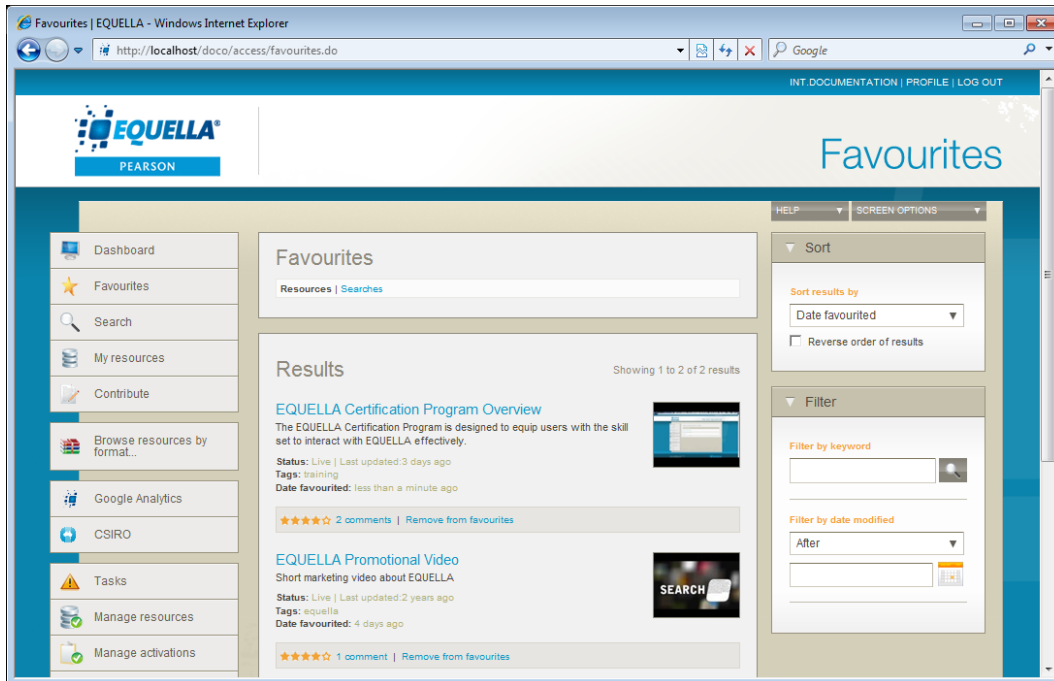


Figure 18 Favourites page

Favourites pages features include:

- **Resources** page where users can view individual favourite items.
- **Searches** page where users can easily review the results lists from saved searches.

Remote repositories search

A remote repository search allows users to search multiple external sources, including other EQUELLA repositories, for content using a single search query. Depending on how a search has been configured by the administrator, search sources can include such entities as university library databases, Internet search engines and online course management systems.

Supported search sources include:

- Z39.50 gateways
- Search/Retrieve Web service (SRW)
- Multimedia Educational Resource for Learning and Online Teaching (MERLOT)
- Other instances of EQUELLA
- SHEX and MEX for access to free content provided under the National Digital Learning Resource Network (NDLRN).

Other sources can be added, based on a specific institution's needs.

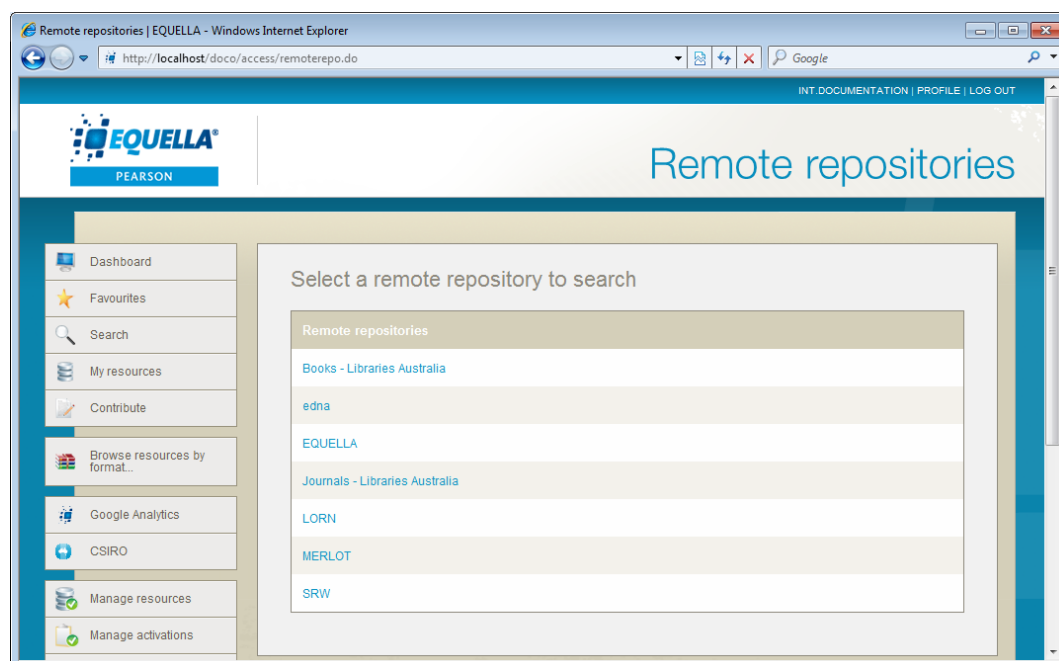


Figure 19 Remote repositories search page

A feature of remote repository searches is that the search result metadata (information) can automatically be added to a collection contribution wizard. This increases accuracy and saves time entering the data manually.

Discoverability

Discoverability (Search Engine Optimisation) in EQUELLA strengthens the visibility of webpages within search engines. Via scripting, this feature provides the user with the ability to add meta tags that improve the way Google, and other search engines can index the resources. To develop collections, including teaching and learning, and

research, which are well formed and meet the Google requirements for high quality search rankings, the repository will index each item and find the appropriate meta tags. For research collections, Google Scholar has particular inclusion guidelines, which can be applied to the content within the repository to produce the best results for discoverability.

Other searching features

YouTube™ content, iTunes™ U items and Google™ Books resources can be included in item content.

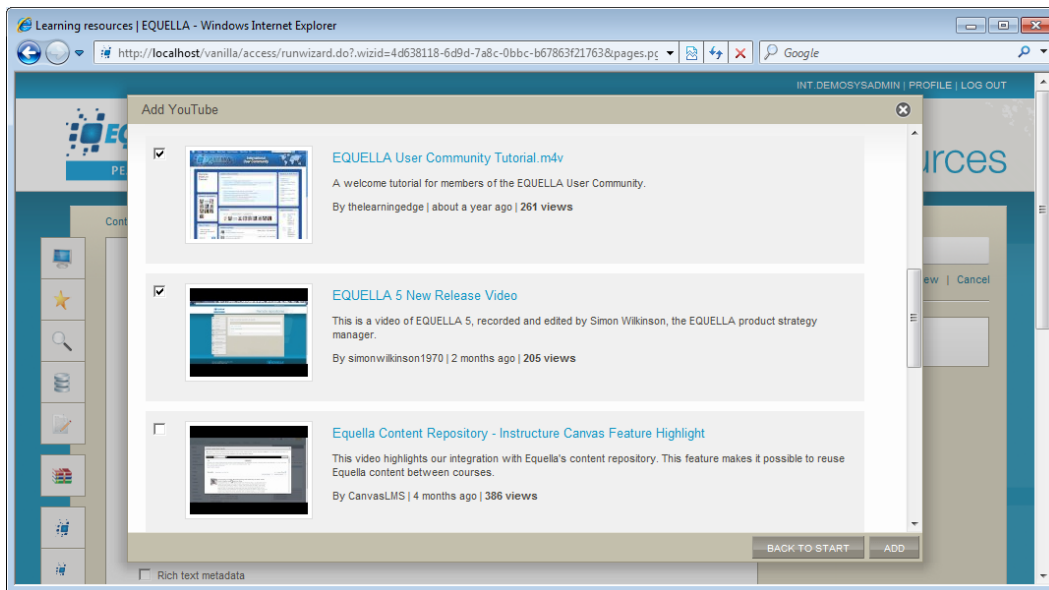


Figure 20 Content from YouTube

Users can browse and search taxonomies to help them classify content.

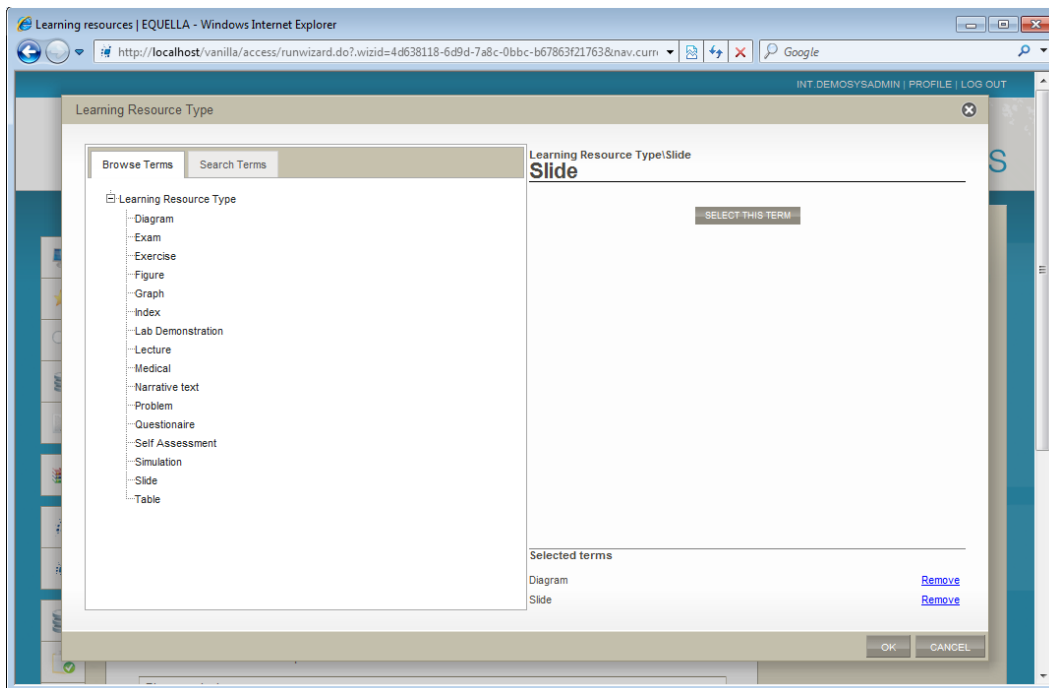


Figure 21 Taxonomy term selection

Personal content

EQUELLA provides a special area for users to easily create and store personal content. Users can add resources to their Scrapbook by uploading files or creating new web pages. These resources can be searched, tagged and managed without worrying about metadata and workflows.

The Scrapbook can be used in a variety of ways, for example, as a staging area for storing and preparing resources for later use in a published work.

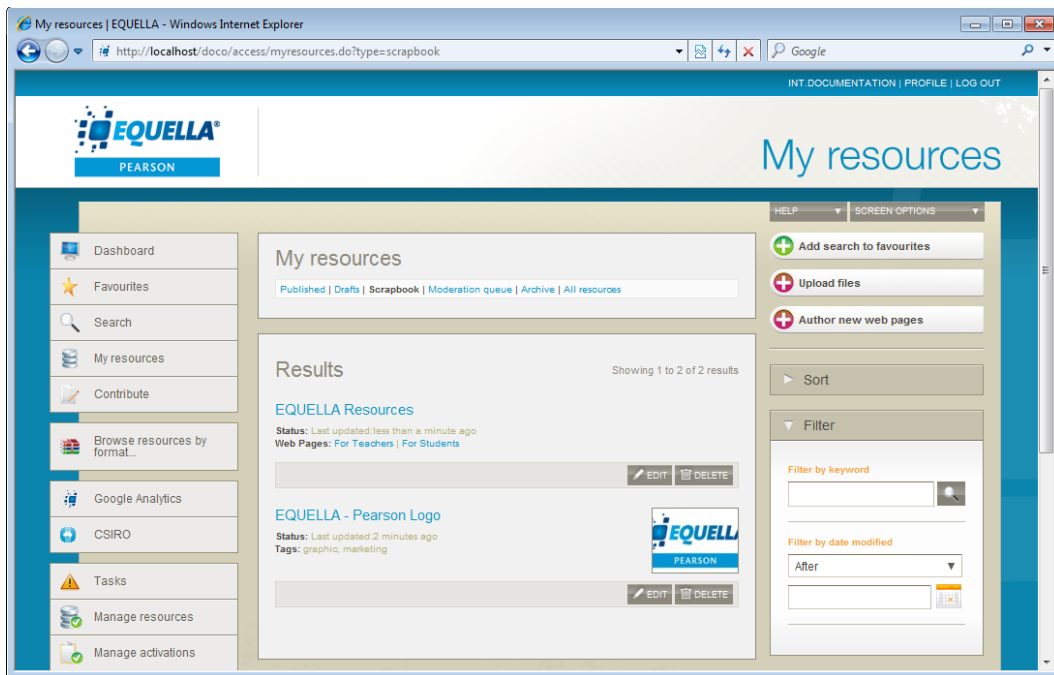


Figure 22 Scrapbook page

Scrapbook features include:

- fast and easy uploading and creation of resources;
- naming and tagging of personal resources;
- simple searching, viewing and managing of content; and
- flexible storage quotas enabling varying models for content authors, instructors, students and other users.

Create HTML pages

The HTML Editor enables the user to create, load and edit a series of HTML pages concurrently. This web-based tool is delivered via a familiar WYSIWYG interface and provides numerous operations, and tooltips to enable the selection of repository content.

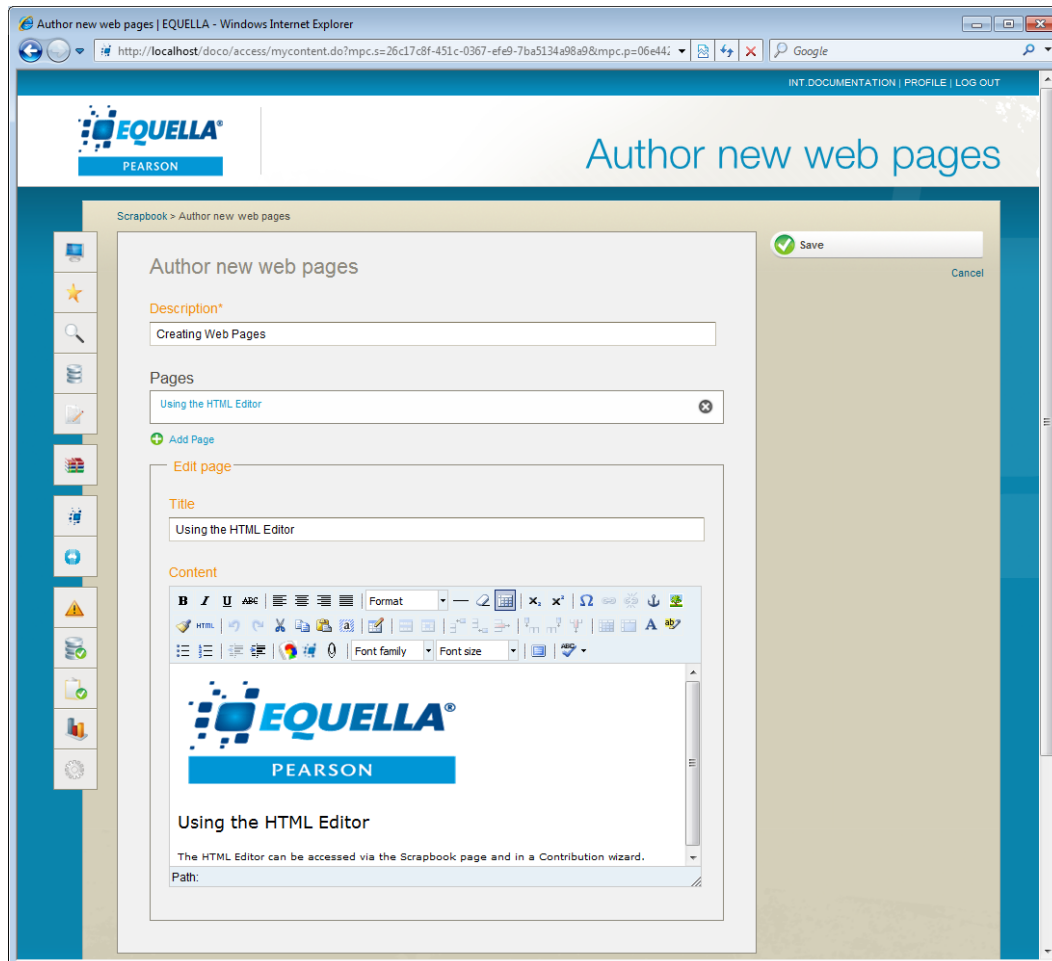


Figure 23 The HTML Editor

Users can either use the HTML Editor to produce static web pages to be stored in their Scrapbook area or quickly create dynamic web page content when they are contributing an item.

HMTL editor plug-in framework

The HMTL editor plug-in framework enables third-party plug-ins to be uploaded and used in the EQUELLA HTML editor, improving the internal authoring capabilities of EQUELLA. Equation editors and graphing functionality for expanded mathematical representation can be added to the HTML editor, and with further customisation users will have the ability to track changes in the HTML editor and also utilise auto-text capabilities.

The plug-in framework has been tested and certified with the following plug-ins:

- WIRIS – Mathematical formula editor

- ICE – Change tracker
- After the deadline – Spelling, grammar and style checker

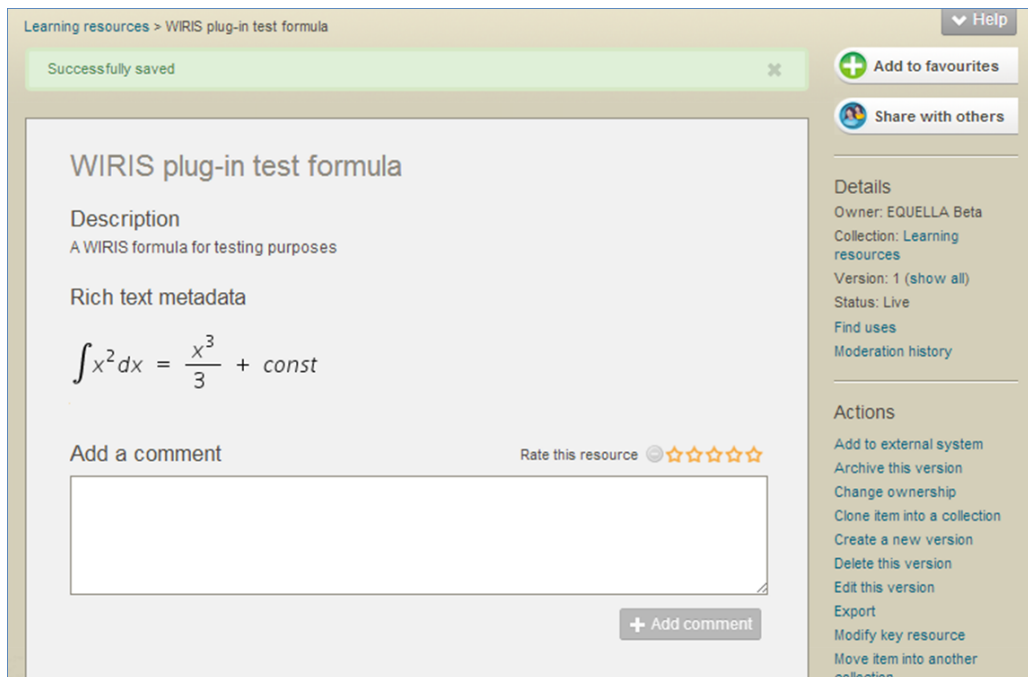


Figure 24 WIRIS – Mathematical formula editor

Reports

EQUELLA uses BIRT (Business Intelligence and Reporting Tools), a flexible custom-reporting engine that allows administrators to design and execute custom reports. Any information included on an installation's database can be reported on using BIRT. Reports can include:

- all items in moderation or items in workflow for more than two weeks;
- items rejected or bad URLs;
- weekly usage (times of logins grouped by user); and
- copyright compliance.

Reports are generated by inputting the installation's data source and then designing reports to query the data source. The report designer uses standard SQL queries and supports all reporting parameter controls and data types allowing user-supplied values to be gathered and used.

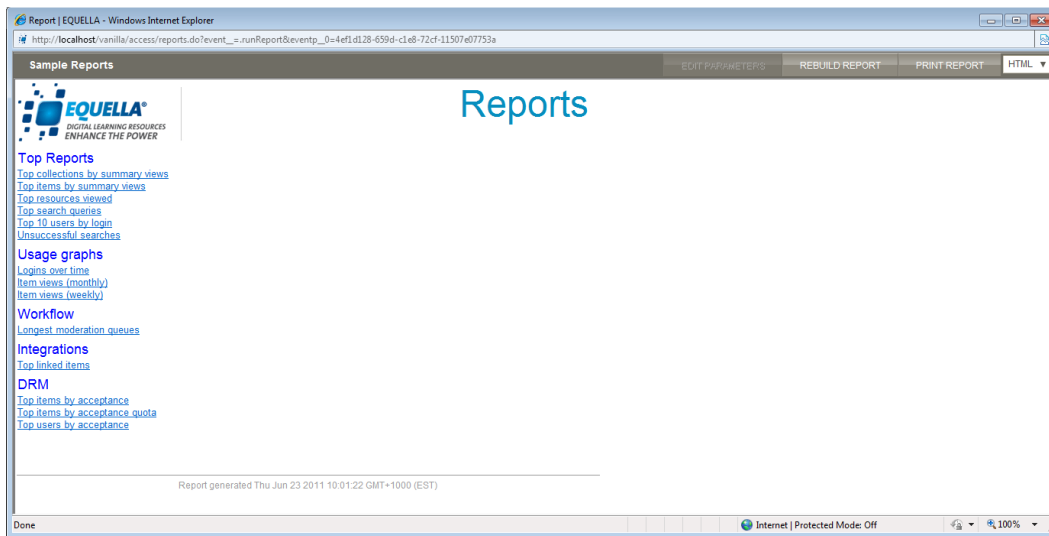


Figure 25 Sample reports

Reports can be generated in HTML, PDF or Excel format and they can be printed.

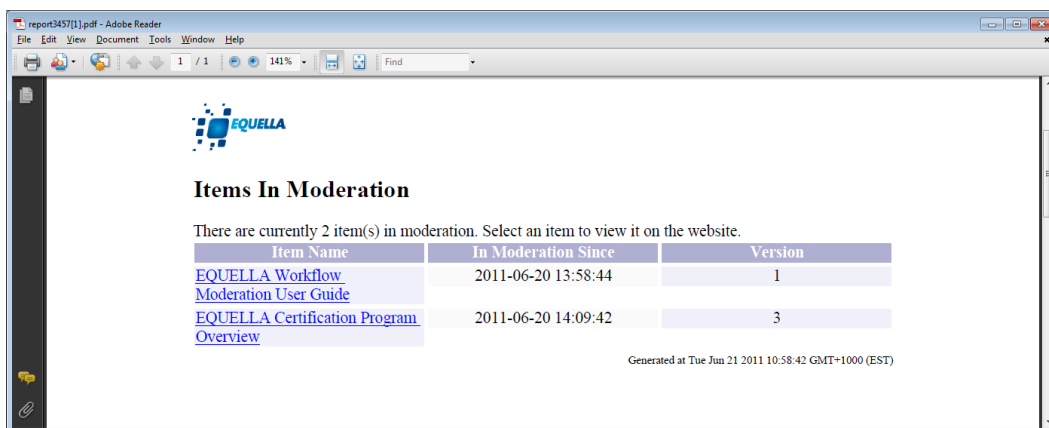


Figure 26 PDF generated report

Assessment

EQUELLA supports IMS Question and Test Interoperability specification (QTI) version 1.2. This allows for the contribution of QTI packages to the EQUELLA repository as resources for viewing. The resource is uploaded in the same way as an IMS or SCORM package. The contributed package can then be viewed exactly as other resources are viewed and will play via the default EQUELLA quiz player.

QTI assessment support also enables users to manage and share assessments in EQUELLA, deliver them through a variety of LMSes and record the student's progress in the LMS Gradebook. Users can assemble, discover, play and interact with QTI assessment objects in EQUELLA. Once the questions that conform to the QTI assessment standard are developed in EQUELLA, the QTI test is then published inside the LMS. When the quiz is played, a score accumulates, and each time a user logs in, the quiz will restart.

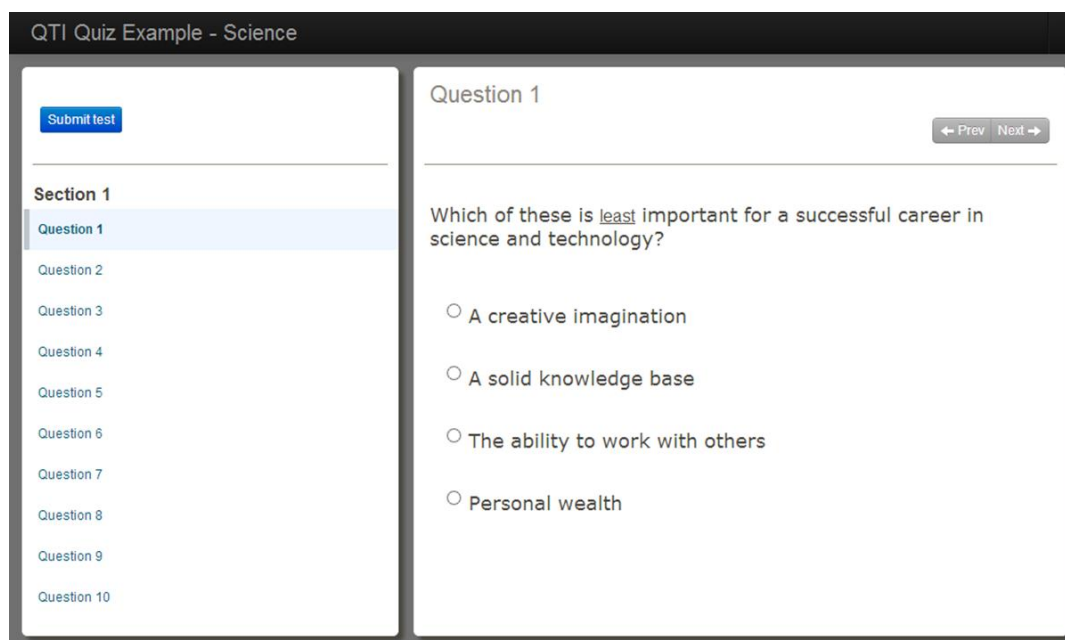


Figure 27 QTI Quiz in EQUELLA

Resource management

Within the EQUELLA Digital Repository items can be managed by various users such as the system administrator, item owner or collaborator. Typically the owner has the ability to modify, create new versions and share ownership of their contributed items, while the system administrator has overall control to manage items regardless of ownership, status or collection.

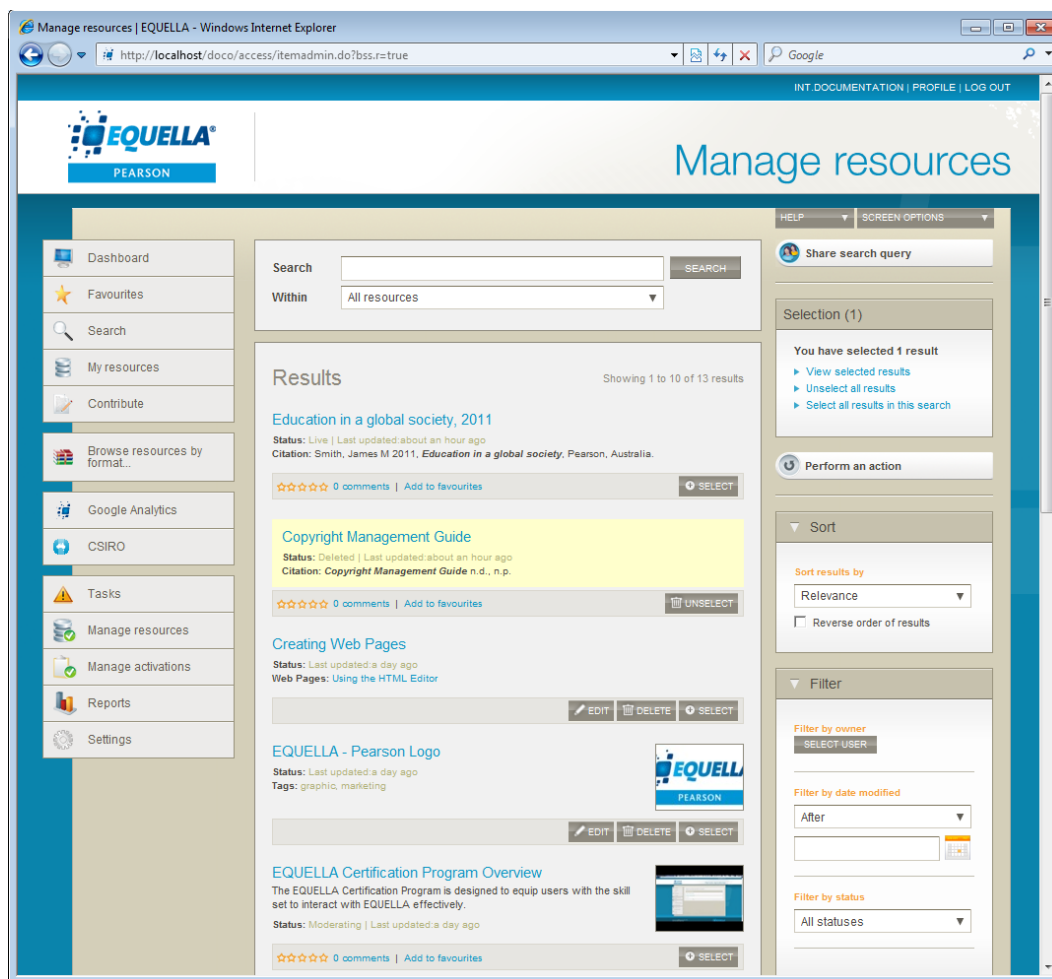


Figure 28 Manage resources page

In-place content editing

The ability to edit resource attachments 'on-the-fly' removes the need to download and upload documents for editing. Resource attachments now have additional capabilities that provide a different range of options for editing, including the ability to save the updated document and allow the user to either upload or ignore the changes. The user may treat the document as a normal EQUELLA file upload, completing actions, including entering the description and tag details. All action results will be displayed in the results saved in the Scrapbook.

The EQUELLA Content Exchange

The EQUELLA Content Exchange enables resources to be sold outright, by subscription or provided free of charge from a Store set up on an EQUELLA system to other systems set up as EQUELLA Store fronts.

EQUELLA instances set up as Stores make content available for purchase to registered EQUELLA store fronts via Store catalogues. Catalogues are created and resources are priced (based on a number of available pricing models) and allocated to relevant catalogues. Catalogues can be restricted by regions, and sales taxes can be applied per Store front registration. The catalogues are then browsed at an EQUELLA Store front, and users can select and purchase desired content.

An EQUELLA system can be configured as a Store front for the purpose of registering with EQUELLA Stores to access available catalogues and purchase content. Content can be added to a shopping cart and paid for using a payment gateway. Basic workflow rules can be implemented to allow for different users to create, approve and pay for orders.

Once a resource is paid for, it is harvested from the Store to the Store front and added to a predefined collection. The resource is available for use for the duration purchased (subscriptions) or indefinitely (outright purchases or free).

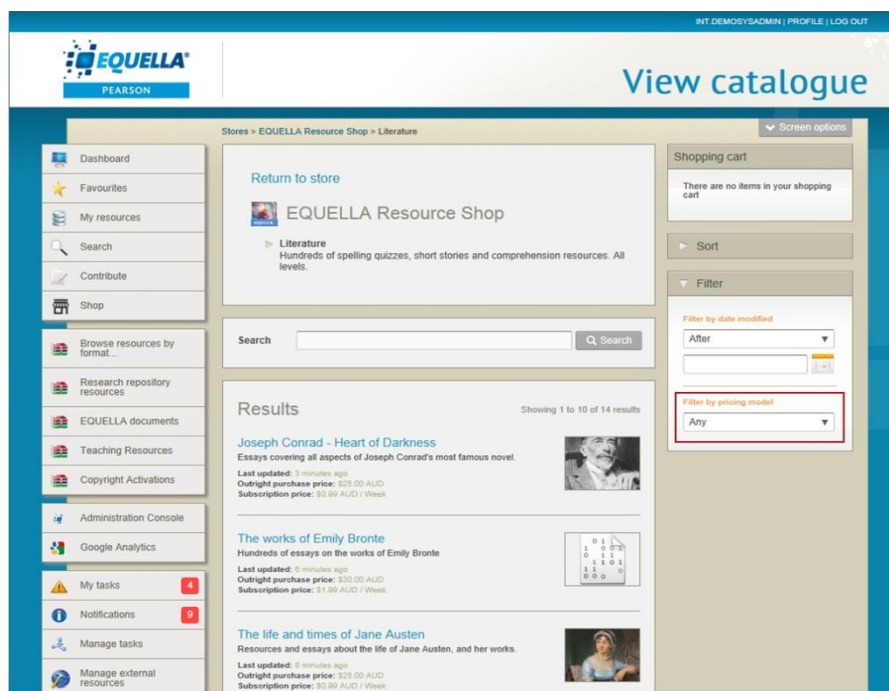


Figure 29 Store Catalogue Resources

Mobile app

Users can access EQUELLA via mobile apps for iPad and Android tablets. The app enables users to view resources owned by the logged in user, as well as notifications and tasks.



Figure 30 My Resources Page

Integrated applications

EQUELLA provides seamless integration with a variety of third-party systems, assisting institutions to maintain a centralised approach in the creation, management and delivery of online learning activities.

EQUELLA can be simultaneously integrated with several different systems, so that a single EQUELLA resource can be accessed by users using different integrated applications across multiple campuses at the same time.

EQUELLA allows integrated systems to login by generating and passing a single sign-on token. Administrators can apply sophisticated security rules based on the shared secret used.

Currently EQUELLA has developed integrations with:

- Moodle™ v2.1, v2.2x, v2.3x, v2.4x and v2.5x (via a set of Moodle Modules);
- Blackboard Building Block—that works with Blackboard Learn v9.1. SP8, 9 and 11
- Sakai™ v2.8 (via a Sakai Tool);
- Additional integrations can be provided upon request, including: Pearson LearningStudio; Fronter; Angel; Canvas; and Desire2Learn.

EQUELLA includes a streamlined standard integration screen which reduces the number of clicks, incorporates drag-and-drop capabilities and Push to LMS functionality. The integration screens provide users with a cleaner, more targeted experience, with a reduced number of clicks. This integration experience is available across all major LMSes that have current integrations with EQUELLA.

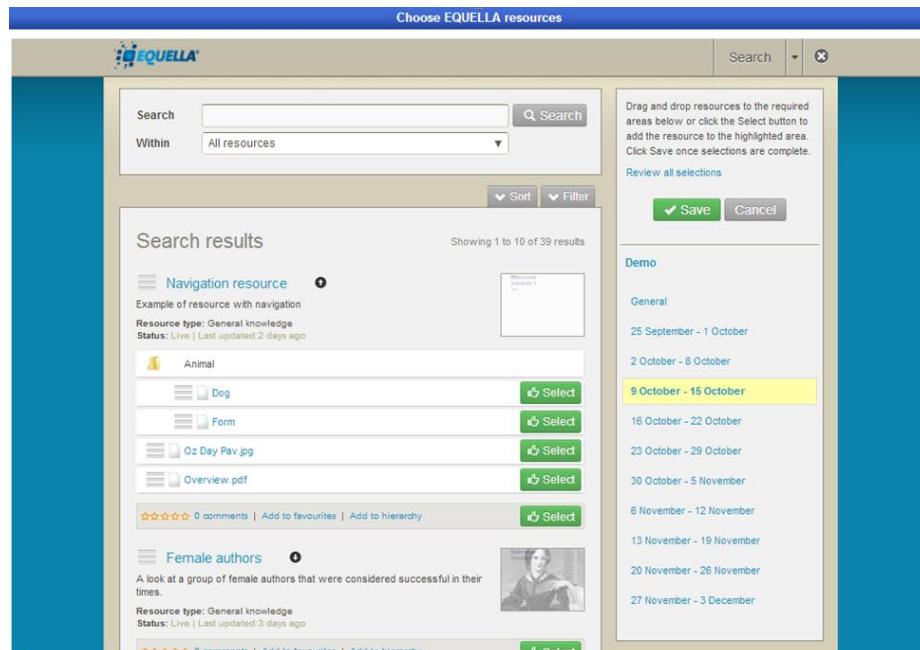


Figure 31 Streamlined standard integration screen (accessed from integrated Moodle with Push to LMS)

Push to LMS

Users can choose to either contribute EQUELLA content to a course within the LMS, or can directly contribute resources into a Moodle or Blackboard Learn course without having to separately access the LMS. This enables users to push content to a course (or multiple courses) directly from EQUELLA.

Any updates to EQUELLA content from within the LMS are automatically synchronised and reflected in EQUELLA.

This functionality also allows administrators and users to discover which EQUELLA content is being used in specific courses.

The integration screen allows users with Push to LMS functionality to drag and drop resources to any section of their LMS, while those without Push to LMS can drag and drop files to the section of the LMS from which they accessed the integration screen.

EQUELLA's push to LMS capabilities provide users with greater flexibility for course sorting and filtering. Users can actively sort by date, name, or course and also edit the information tagged to an individual item as part of the process of pushing the content to the LMS.

This feature has the ability to push content to courses that are not currently live, manage external resources, and update items in bulk. The user interface enables effective

management of content pushed to the LMS, including summary reports. The reports can be generated, and may include the course ID, teacher's name, item name, file type and size, as well as when it was last accessed and the number of students who used the resource.

Flickr Integration

Flickr has been added as an attachment type to attach to resources during contribution. Now along with YouTube videos and Google books, images from the Flickr repository are able to be incorporated into your contribution.

The user can search for images within Flickr, across a range of search elements including: over text and tags, filter by date photo taken, limit to any one of the Creative Commons Licences, Flickr Institutions, Flickr user's FlickrId, username or email. The search will return results that directly match the query and filter options, with the result including: name, selection checkbox, description, full image size, date taken, licence, author, and time since added. Any number of Flickr images may be selected by the user and, after being added, the image details can also be edited.

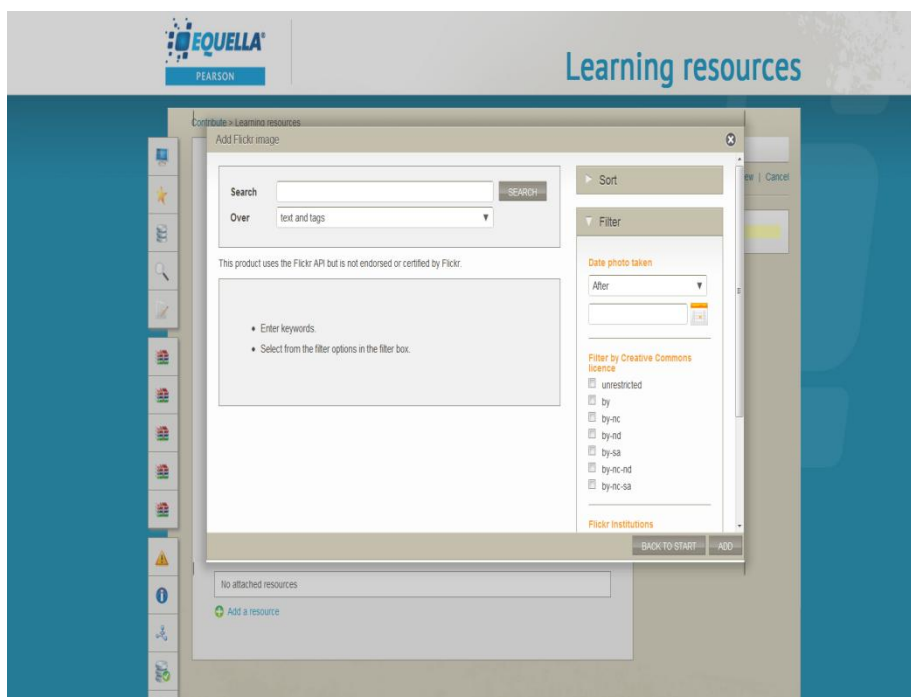


Figure 32 Add a Flickr image as a resource

Microsoft Office Scrapbook Integration

The Microsoft Office Scrapbook integration enables users to publish content to EQUELLA from within Microsoft Office (Word, Excel, PPT), saving time on editing and uploading different content versions.

To develop the integration the user will first enter My resources and select the Scrapbook link, as this page lists all resources currently in your scrapbook, which can be uploaded. This allows the user to organise their commands for the tool to effectively configure the

integration. An institution URL can then be added to tell Microsoft Office where to look for the user's scrapbook.

Using the login for the EQUELLA user for whose Scrapbook resources you wish to browse will produce a list of resources from the Microsoft Office program you are browsing. The results can be filtered by entering a new search term, and sorted by Last modified, Title or Relevance. Each resource can be uploaded, and edited before publishing. The updated resource can then be viewed by opening from either a web browser or from within the selected Microsoft program.

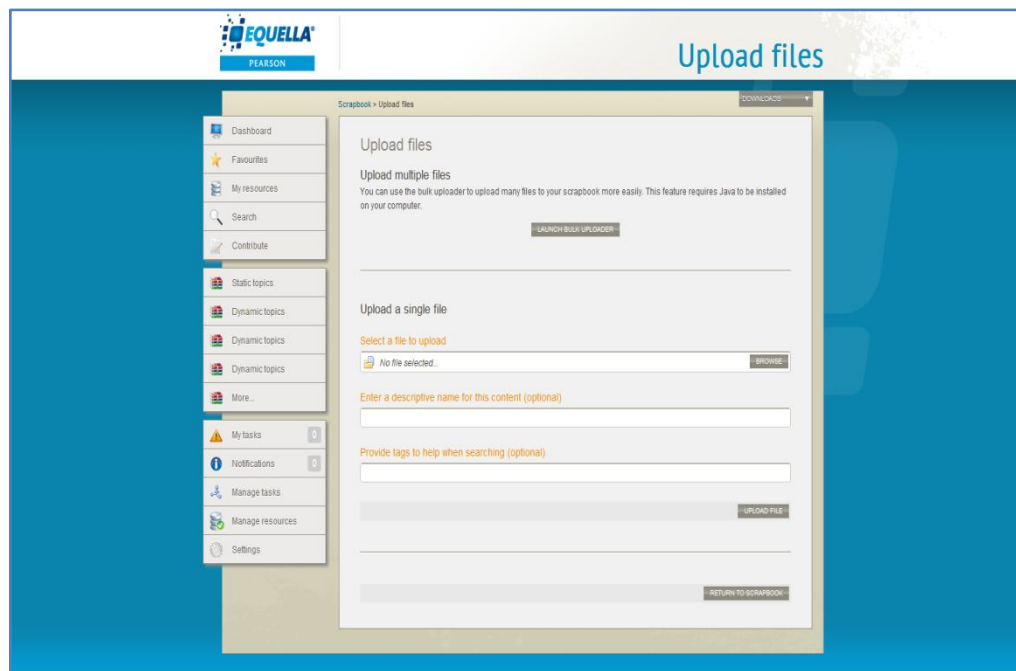


Figure 33 Select a resource in your Scrapbook to upload

YouTube Channels

The YouTube integration provides institutions with the ability to restrict access to specific YouTube channels. This allows educators to develop a more tailored and relevant approach to YouTube that directly connects with course content and controls access to more subject appropriate YouTube videos for students.

Each YouTube channel can be developed to enable the user to configure their set channel options, by adding particular channels that are course appropriate. Media from a YouTube channel will be accessed via the collection that has been built with an enabled YouTube attachment type that includes all the required channels. Once the user selects YouTube from the list of attachment types, the search page will display the channels the search will be within, and the user will be presented with a list of search query results relevant to their course content.

Kaltura Media Streaming

EQUELLA has the ability to integrate Kaltura streaming media, enabling Kaltura streaming media files to be linked to an EQUELLA resource during contribution. Video files can be

uploaded to the Kaltura server, converted to streaming media then attached to the resource during contribution for playback through the repository or an integrated LMS.

The Kaltura integration also provides users with the ability to set up multiple Kaltura servers. The addition of local servers allows users to upload, link to, and stream both audio and video files. The integration also enable multiple instances of the same server to be created, which allows users to select different players for each instance. All users can also record via webcam and upload a selection to a Kaltura player during contribution.

Rest Interface

The inclusion of REST APIs in EQUELLA provides additional integration options for clients utilising external applications. This allows users to request a service call via a new request process, Web Services On Demand (WSOD), which enables each user with these privileges to extend remote access and interaction with EQUELLA. REST services are better utilised in specific technical environments so the inclusion of REST and the continued support of SOAP services will provide greater technical solutions for our client base integrating with EQUELLA.

Echo360 Integration

The EQUELLA and Echo360 integration enables an educator to use Echo360 to record and store a lecture, which is coded into different formats, and published into EQUELLA. EQUELLA has been configured to detect all Echo content, not only video files, which will enable the content information to be extracted from the system and tagged to the content.

Once populated into EQUELLA, the reference can be linked into the many LMSes and portals with which EQUELLA integrates, along with any other content available in EQUELLA. The application will then stream the media from Echo360.

The integration utilises EQUELLA's push to LMS functionality, which allows users to publish content to a course directly from EQUELLA, with advanced usability and categorising of content, including greater flexibility for course sorting and filtering. The integration also extends Echoes with EQUELLA's commenting, rating and analytics, and will also enable users to publish comprehensive metadata for an Echo containing links to EchoCenter or EchoPlayer.

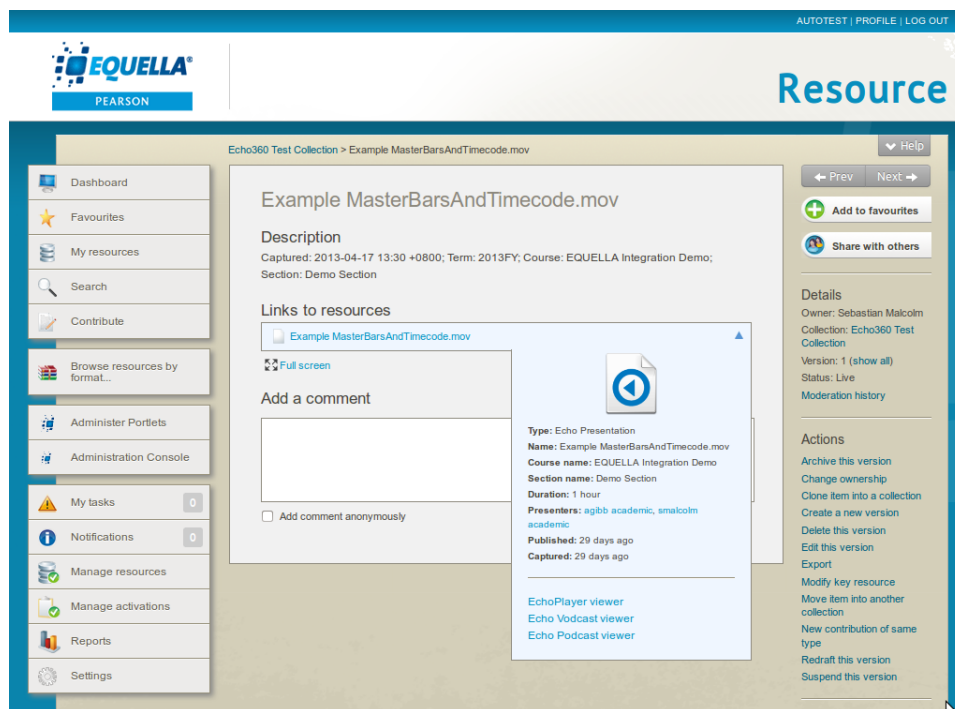


Figure 34 Echo360 item summary page

LTI (Learning Tools Interoperability)

EQUELLA's LTI consumer and provider compliancy provides users with the ability to configure LTI tools and complete an LTI launch from inside EQUELLA and an associated third party tool. This also enables EQUELLA to interface with other external systems as an enhanced product that is LTI compliant.

The improvement of external integration support for additional tools, including LMSes, ePortfolio systems, attachment and content authoring tools is delivered through the standards based LTI integration. Users can embed any EQUELLA content into a compliant LTI consumer application, and can authenticate/connect to any EQUELLA URL as well as resources.

Usability features

Context sensitive help

Online context sensitive help is available to users.

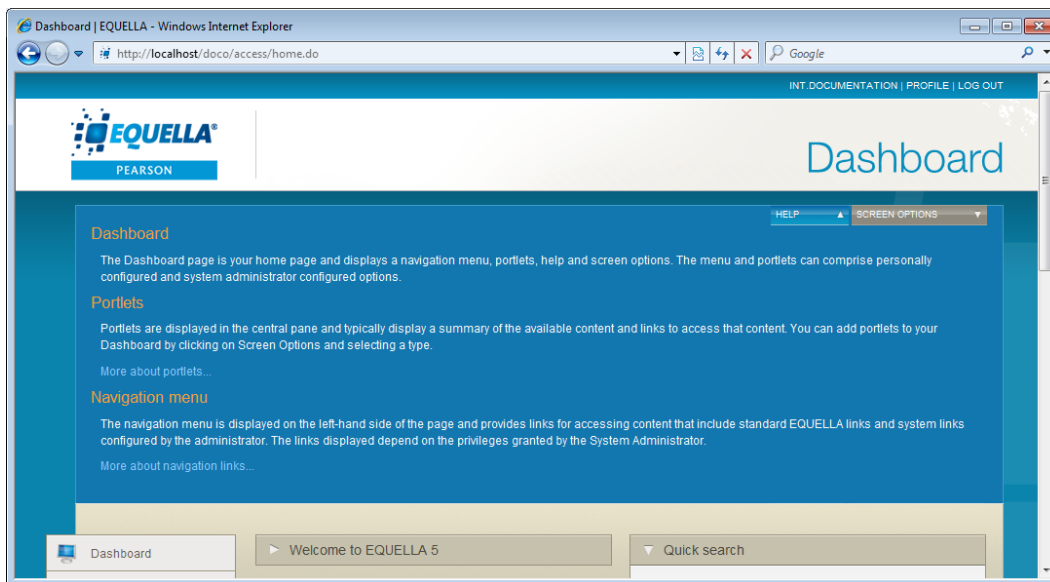


Figure 35 Help page

Each help page displays additional text when a link is selected.

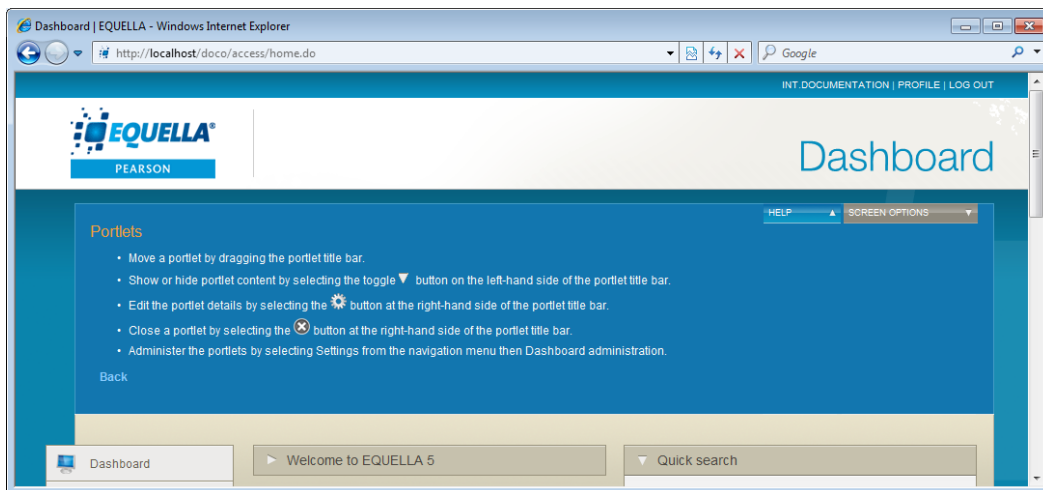


Figure 36 Linked help page

Copyright compliance management

EQUELLA provides a convenient method for institutions to manage the digital materials they use. EQUELLA supports the concurrent use of Australian Copyright Agency Limited (CAL) and the United Kingdom Copyright Licensing Agency Limited (CLA) agreements.

The EQUELLA copyright compliance features include the ability to activate specific attachments (typically book chapters and journal articles) for particular periods within a course to ensure compliance with local copyright laws. EQUELLA automatically tracks content usage of the activated items and produces the appropriate reports, reducing the reporting workload for institutions.

The copyright features are simple to configure and provide custom activation error messages and copyright status agreements for display to users.

Contributing copied material

Copyright items are contributed to the repository through interrelated collection definitions. Typically a parent item (source book or journal details) is contributed to a holding collection then the sections (copied or electronic book chapters or journal articles) are added to the portion collection and linked to the parent item in the holding collection.

The remote repository search features allow users to search for source details from a variety of external sources and automatically add them to the EQUELLA Digital Repository, increasing accuracy and saving time.

Use and activation of copied content

The copyright compliance features simplify the management of copyright material by controlling how much of the contributed copyright content is active at any time.

There are no restrictions on the amount of copyright content that can be contributed to the repository but it cannot be used until it has been activated. Content is activated when it is added to a course. Activation signals to the copyright compliance module that content usage should now be recorded and copyright compliance enforced. If the activation violates the copyright requirements, an error message is displayed and the content will not be made active. Once activated the content is viewable by course users.



Figure 37 Active and inactive portions that are linked to a parent item

Managing activations

Item activations can be tracked effortlessly by content contributors and deleted, deactivated and rolled over for future courses by administrators.

Generating copyright compliance reports

EQUELLA generates reports that show all activated content for the reporting period. These reports are provided in a CAL or CLA format, which is also suitable for spreadsheet applications.

eReserve functionality

EQUELLA provides eReserve functionality that enables institutions to manage online IP-restricted materials effectively. Controlling activations and access to licensed materials can be simply enforced. The use of eReserve materials is automatically tracked by EQUELLA. Citations and reports are generated according to tailored rules, such as those administered by copyright agencies other than CAL and CLA.

Digital rights management

EQUELLA provides digital rights management (DRM) functionality for administrators to configure Rights Statements within collections. The system also allows for the attribution of rights to content contained within the EQUELLA Digital Repository. These rights can be specified by the contributor or automatically generated by the system.

The broad DRM areas are:

- **Recording ownership**—EQUELLA allows a contributor to attribute ownership rights to one or more parties.
- **Reuse of the material**—that can include specifying:
 - broad access rights such as the right to display, print, execute, annotate, etc;
 - that materials can only be used in the educational sector;
 - that users attribute ownership of the material to the original owners.

The screenshot shows a web browser window titled "Learning resources | EQUELLA - Windows Internet Explorer". The address bar shows a URL starting with "http://localhost/doco/access/runwizard.do?". The page header includes the EQUELLA logo and the text "Learning resources". The main content area is titled "Contribute > Learning resources" and "DRM - Ownership and rights". It contains several sections: "Who are the rights holders?" with radio buttons for "Myself", "Myself and others listed below" (selected), and "Others listed below"; "Other rights holders" with a text input field containing "Certification Program Co-ordinator / training@equella.com" and an "Add" button; "What rights should the end user be provided?" with radio buttons for "Allow users to only take and use", "Allow users to take, use and modify if required", and "Specify custom usage and reuse permissions (Advanced users only)" (selected); "Permissions for using" with checkboxes for "Display", "Print", "Play" (all checked), and "Execute"; and "Permissions for re-using" with checkboxes for "Modify", "Quote", "Annotate", and "Aggregate" (all checked). On the right side, there is a "Save" button with a green checkmark, and a sidebar with links for "About", "DRM - Ownership and rights", and "DRM - Access control".

Figure 38 Collecting basic Digital Rights information

- **Access control**—that can include:
 - restrictions based on users and or groups;
 - restrictions based on computers (IP address ranges);
 - specifying a limited number of accesses;
 - specifying a restricted date range for using the material.
- **Acceptance of a DRM agreement**—by selected:
 - users, groups or roles;

- IP address, HTTP referrer or with SSO identifier.

The screenshot shows a web browser window titled "Learning resources | EQUELLA - Windows Internet Explorer". The address bar shows a URL starting with "http://localhost/doco/access/runwizard.do?". The page header includes "EQUELLA PEARSON" and "Learning resources". The main content area is titled "Contribute > Learning resources" and "DRM - Access control". It contains several configuration options:

- ☒ Only allow a limited number of licence acceptances
- Specify number of licences: *
100
- ☒ Limit use to a specific date range
- Range *
From 01/07/2011 to 31/12/2011
- ☒ Require that users agree to the following terms of use
- Use statement *
The material presented in this course is the property of The Learning Edge International (Pearson Australia Group), distribution, use and modification of the material is prohibited without express written permission from The Learning Edge International.

On the right side, there is a "Save" button with a green checkmark, and a "Preview" button. Below these, there is a sidebar with links: "About", "DRM - Ownership and rights", and "DRM - Access control". At the bottom right, there is a "PREV" button.

Figure 39 Collecting advanced digital rights information

A DRM licence with acceptance requirements can be displayed to users accessing content. Licence acceptances are recorded by EQUELLA enabling tracking for review by contributors and administrators.

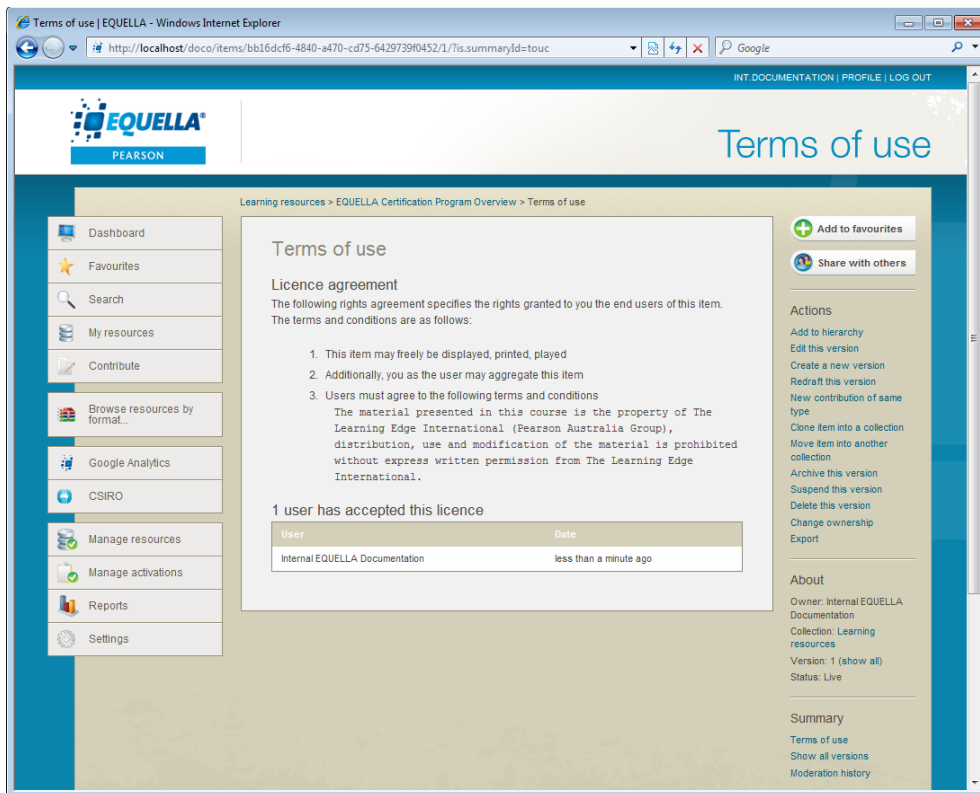


Figure 40 Terms of use and the users who have accepted the DRM agreement

MIME type configuration

EQUELLA provides a system for defining how attachment MIME types are handled. Administrators can search for, upload, remove and edit MIME types based on file extensions. MIME type settings include:

- the icon and descriptive display name;
- appending a single sign-on (SSO) token;
- users interaction, such as:
 - open a new window, use of FancyBox and controls for the window sizes;
 - allocation of MIME types that can be embedded in the HTML Editor;
 - text extractors for free text indexing;
 - viewing options for each MIME type.

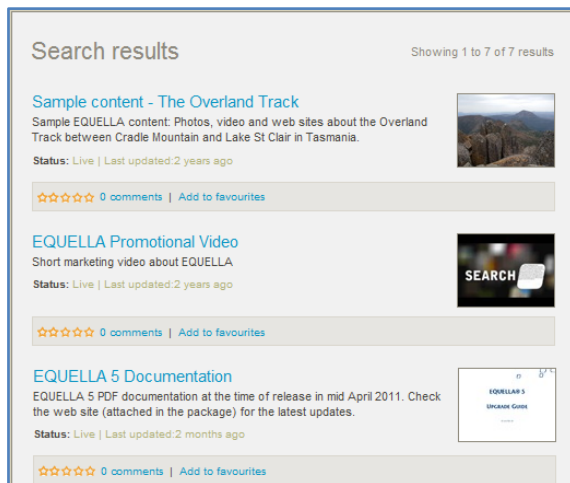


Figure 41 User's view of MIME types

All enabled viewers will be displayed as options when viewing items.



Figure 42 User's view of MIME type viewer options

Image viewers

The extensive range of viewer options include:

- **File viewer**—displays the item in the current browser window or application.
- **Large image viewer**—displays all image types allowing the user to easily view very large, detailed images.
- **Gallery**—displays image/jpeg, image/png and image/gif in a gallery style allowing the user to iterate through a group of images.
- **Embedded Movie Player**—displays video/x-flv in a flash video viewer.
- **HTML Conversion**—converts Microsoft Word™, PowerPoint™ and Excel™ 2003 application files to HTML.
- **View via Google Docs**—displays the item in GoogleDocs.
- **View as JPEG image**—displays all the 'larger' image formats (e.g. image/bitmap, image/x-portable-graymap) as a jpeg.
- **Download file**—force users to save rather than view the attachment.
- **Download Package**—for downloading IMS packages (equella/ims-package).

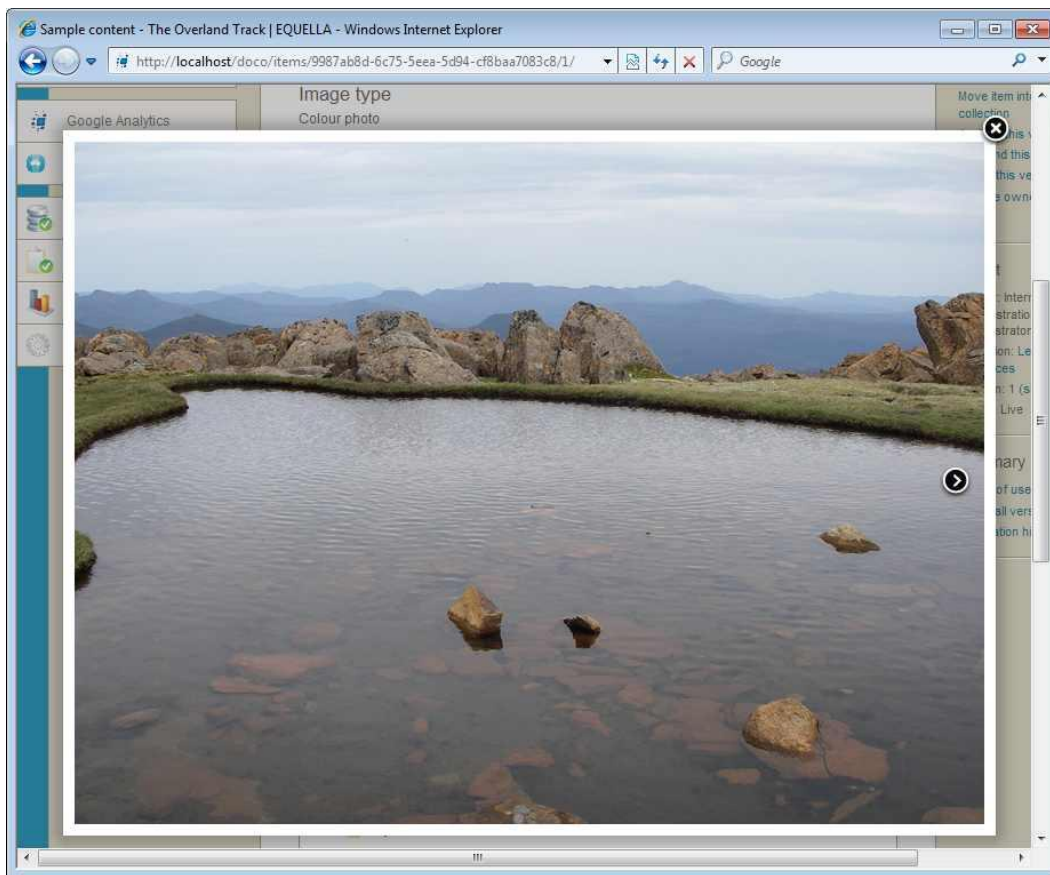


Figure 43 Gallery viewer

Large image viewer

The Large image viewer allows users to easily view very large, detailed images stored in the EQUELLA repository. Users are able to view the images at a reduced resolution with the ability to rotate, pan, and zoom out and in to view down to the finest detail of the image. A thumbnail view helps identify which part of the image is being viewed and enables quick navigation around the image. Users also have the ability to disable the thumbnails for certain MIME types, and enable rotation for when there are multiple attachments.

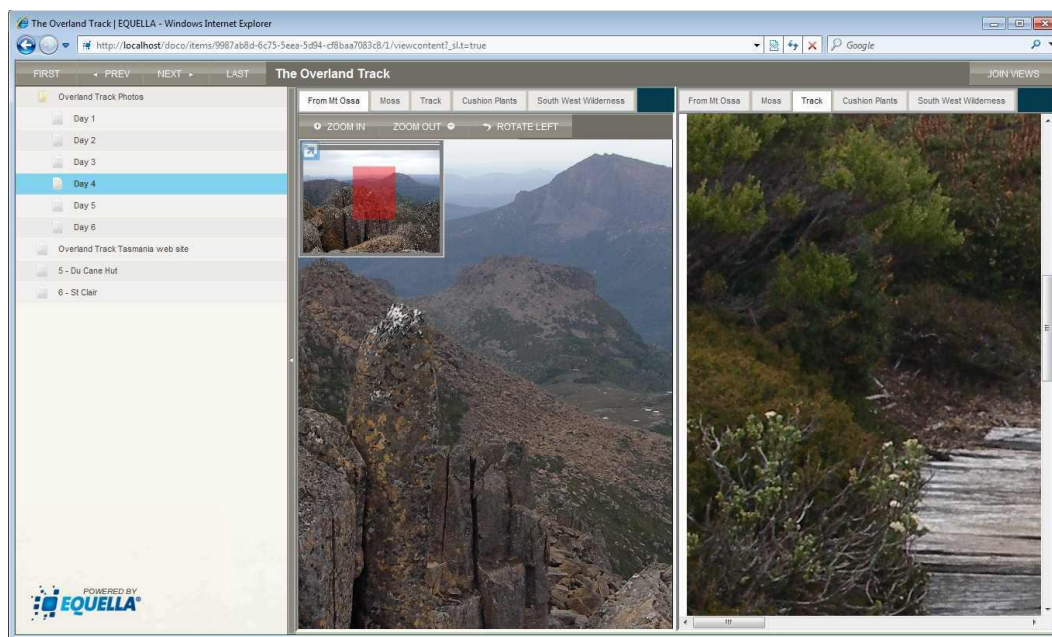


Figure 44 Images displayed using the Large image viewer (on LHS) and File viewer (on RHS)

Internationalisation and localisation

EQUELLA's capabilities can be experienced by users worldwide, regardless of language. EQUELLA and its content can be viewed in a user's preferred language.

Users are able to contribute materials and assign metadata in multiple languages.

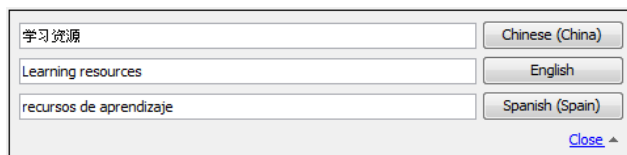


Figure 45 Multi-language contributions

Language Packs enable multi-language configuration of the system or for the customisation of any text on the screen, allowing for institution-specific branding.

Language Pack Support

EQUELLA provides support for right-to-left languages such as Arabic as well as language pack support for other regions. This provides institutions with the ability to change common terms and strings of characters in EQUELLA to better match their institution's common terms and/or foreign language requirements.

EQUELLA Student

EQUELLA Student has the flexibility to be configured to meet a variety of ePortfolio, web drive and other student-oriented content management requirements. Students can easily author web pages and aggregate materials to create contributed content packages. Content can be contributed for review by instructors ensuring compliance with accreditation, academic and personal achievements and goals. Informal interaction via peer comments and rating of shared packages can also occur. The effectiveness of content stored within EQUELLA Student is extended due to its portability and ability to be shared with others. Institutions can configure EQUELLA Student to ensure appropriate usage, enabling students to develop and share content in a controlled environment.

Administration features

Administration settings

The EQUELLA Settings page provides access to administration tasks.

Administrators can manage MIME types based on file extensions; create and upload custom themes to tailor EQUELLA's 'look and feel'; provide custom links for EQUELLA Digital Repository user navigation; monitor site traffic and provide metrics for site development through Google Analytics; and review user information for all logged in users.

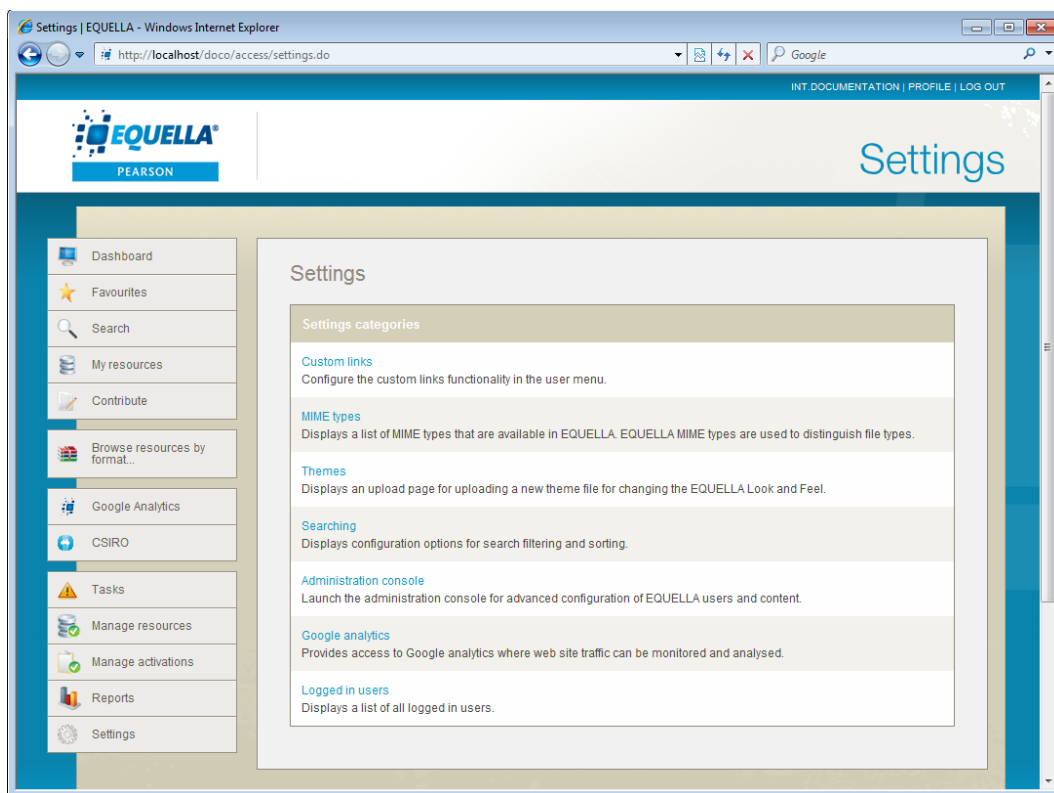


Figure 46 Settings page

Administration Console

The EQUELLA Administration Console provides a powerful, easy to use and flexible interface for the management of all aspects of the EQUELLA suite of tools.

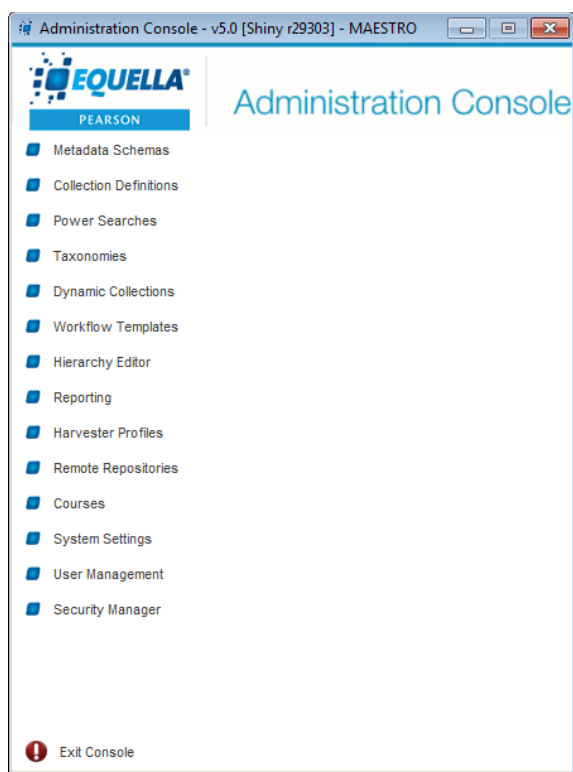


Figure 47 Administration Console main view

From within the Administration Console administrators have the ability to:

- define new and flexible XML based metadata schemas;
- create new or modify existing collections;
- design new data entry wizards (using a library of wizard controls);
- specify copyright and digital rights management requirements;
- use a powerful, intuitive and easy to use scripting language to enable data entry wizards to be customised depending on the user type and or other metadata elements provided during the submission/review/moderation process;
- design new workflows;
- classify and harvest content;
- specify system privileges and access control;
- define and administer federated searching sources (other external repositories);
- configure navigation links, advanced searches, and user management settings;
- configure various system settings, including URL checking functions, supported file types, login and mail server settings; content quota restrictions; caching schedules; and
- activate and administer integration with external products.

Ongoing customisation and administration of your EQUELLA solution can be performed with the help of EQUELLA's worldwide support and local consulting teams in the USA, Canada, Australia and the United Kingdom.

Server administration

The Server administration account allows for convenient hosting of EQUELLA. One physical installation of EQUELLA can host as many institutions of EQUELLA as required.

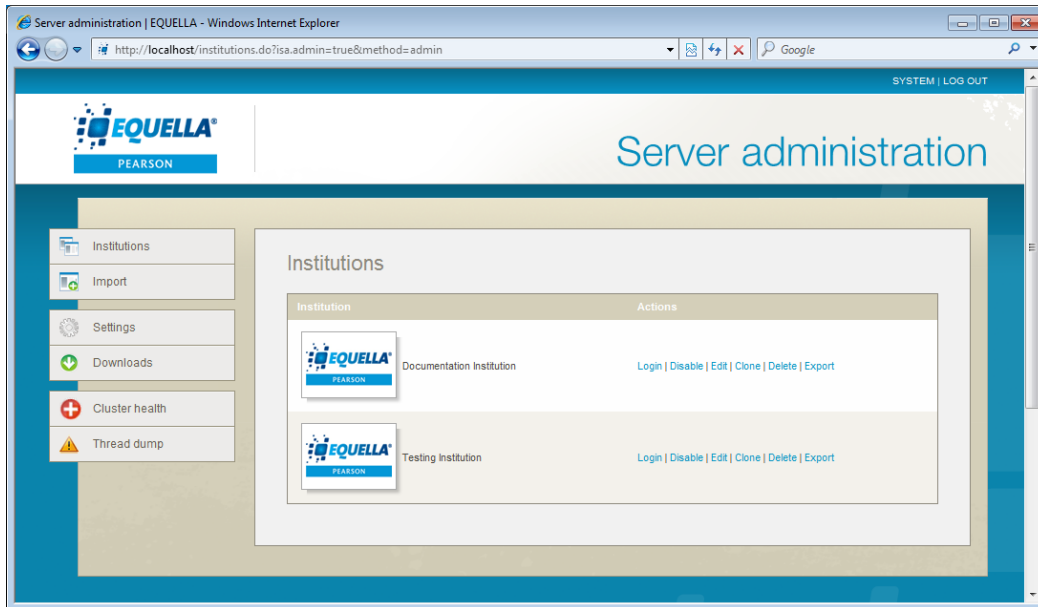


Figure 48 Server administration

Each institution shares the same database and filestore but is entirely independent allowing new institutions to be easily added. Every institution can have an arbitrary base URL and a different time zone.

Server administrators can set a time zone for each institution that differs from the server time zone. Users can also override this with their own preferences. This is especially helpful for campuses that span different time zones, users who travel frequently and EQUELLA service providers who have clients in different time zones.

Other EQUELLA server administration account features include:

- cloning existing server institutions;
- importing institutions from other servers;
- editing, exporting, deleting or disabling institutions;
- setting a message that is displayed to all users on the server;
- downloading third-party integration installers;
- information about the threads that are running, processing and being accessed; and
- a troubleshooting tool for clustering.

As the shared installation size grows, more application servers can simply be added to the cluster.

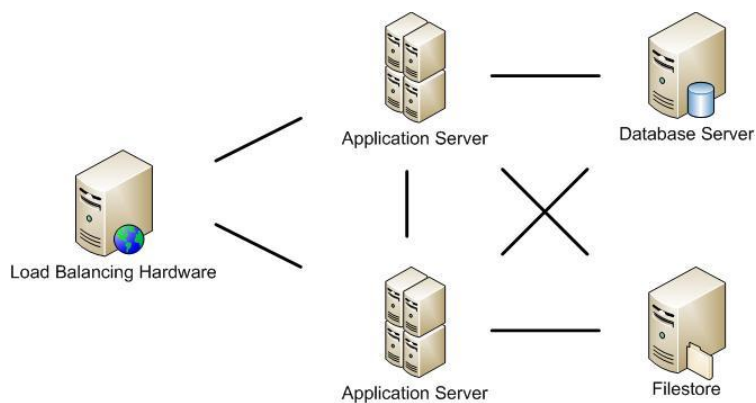


Figure 49 Simple clustering scheme

Additionally, clustering support to assist large installations will ensure stability of clustering, with a greater increase in the ability to scale the application for enterprise use.

EQUELLA delivers support for increased synchronisation, and stronger configuration maintenance for the organisation, while coordinating distributed applications via one core server (location). EQUELLA's clustering capabilities will provide greater reliability and timeliness for an up-to-date system.

Content Delivery Network

EQUELLA's support for CDN (Content Delivery Network) allows for the global distribution of localised content to improve network access speeds. EQUELLA's support for CDN with Akamai, an internet content delivery network, is tested and certified.

Improving the reliability and efficiency of content delivery, this functionality strengthens internet downloads and streams to ensure your institutional team are receiving content from the localised content server as quickly as possible.

Multi Tenancy for databases

Clients have the ability to create and run each EQUELLA instance (institution) off a separate database, allowing a dedicated database for each institution. This enables separate reporting of EQUELLA institutions hosted on the same physical environment.

The use of multiple databases and the allocation of those databases to specific institutions enable those with read-only reporting privileges access to only a specific institution or institutions using an associated database.

EQUELLA version management

The EQUELLA Manager is an easy-to-use web interface for configuring, starting, stopping, and upgrading EQUELLA.

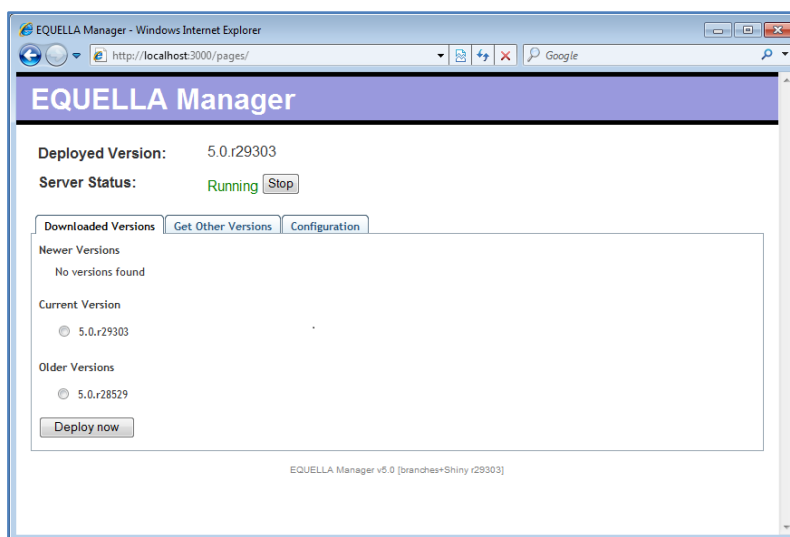


Figure 50 EQUELLA Manager

The EQUELLA Manager communicates with the upgrade server and downloads new EQUELLA versions when they are available. Any new version can be deployed and older versions that have been downloaded, whether they have been deployed or not are also available.

Security management

The Security Manager is a powerful feature available within the EQUELLA Administration Console. The Security Manager allows editing of permissions for all facets of the application in a flexible and unified manner. Within the Security Manager, a System Administrator is able to determine the access control settings for every element of the system.

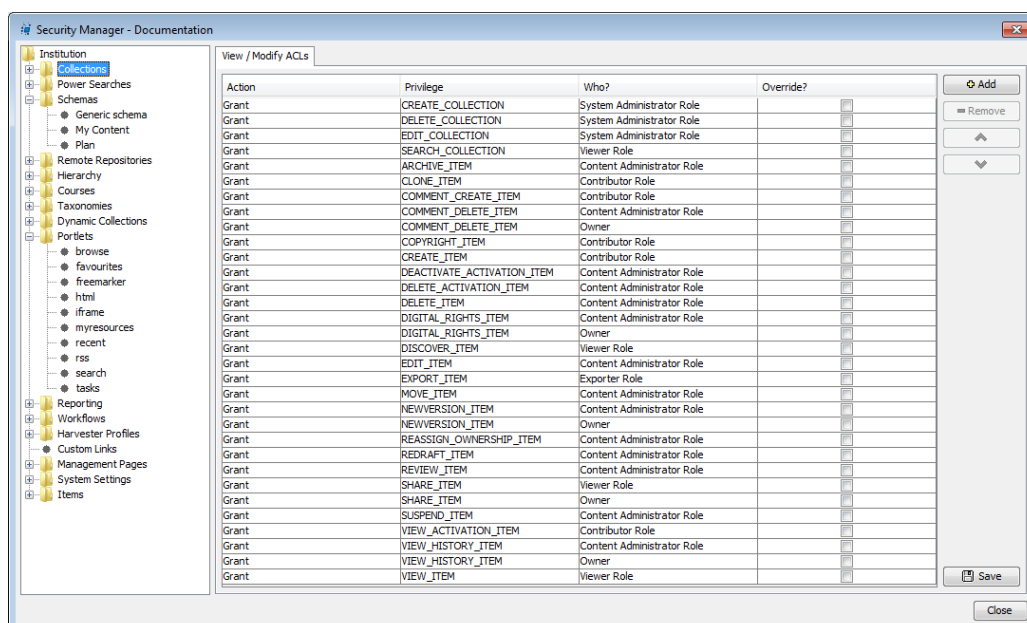


Figure 51 Security Manager

The Access Control Lists (ACLs) designed for flexible top-down management, allow system administrators to manage user access to objects within the repository. Management of objects can be delegated to users, groups and roles and applied institution-wide or to individual objects.

Dynamic metadata ACLs

The dynamic metadata ACL feature enables the creation of permissions dynamically based on user, group or role IDs. Once a rule is set up for a collection, a contributor can select a user, group or role (depending on the rule), and preconfigured ACLs will be set automatically.

An EQUELLA group could be set up for each course an institution offers, and the users (students) enrolled in that course are added to the group. A dynamic metadata rule is created which sets the path, ID type (in this case, group) and the ACLs (privileges) that will be applied when a match is found during contribution. When the value of the metadata node for the group selector matches the group ID, the ACLs are automatically created.

User management

EQUELLA supports a wide range of mechanisms to facilitate authentication and access control and manage users. These mechanisms include:

- Lightweight Directory Access Protocol (LDAP) support;
- CAS Replicated Datastore authentication;
- External Authentication including:
 - Shibboleth™
 - Microsoft™ ISA;
 - support for other authentication systems can be negotiated; and
- User creation and user login. Specific high security access calls can be restricted to a subset of IP addresses enabling portals or other websites access to user administration/access control functionality.

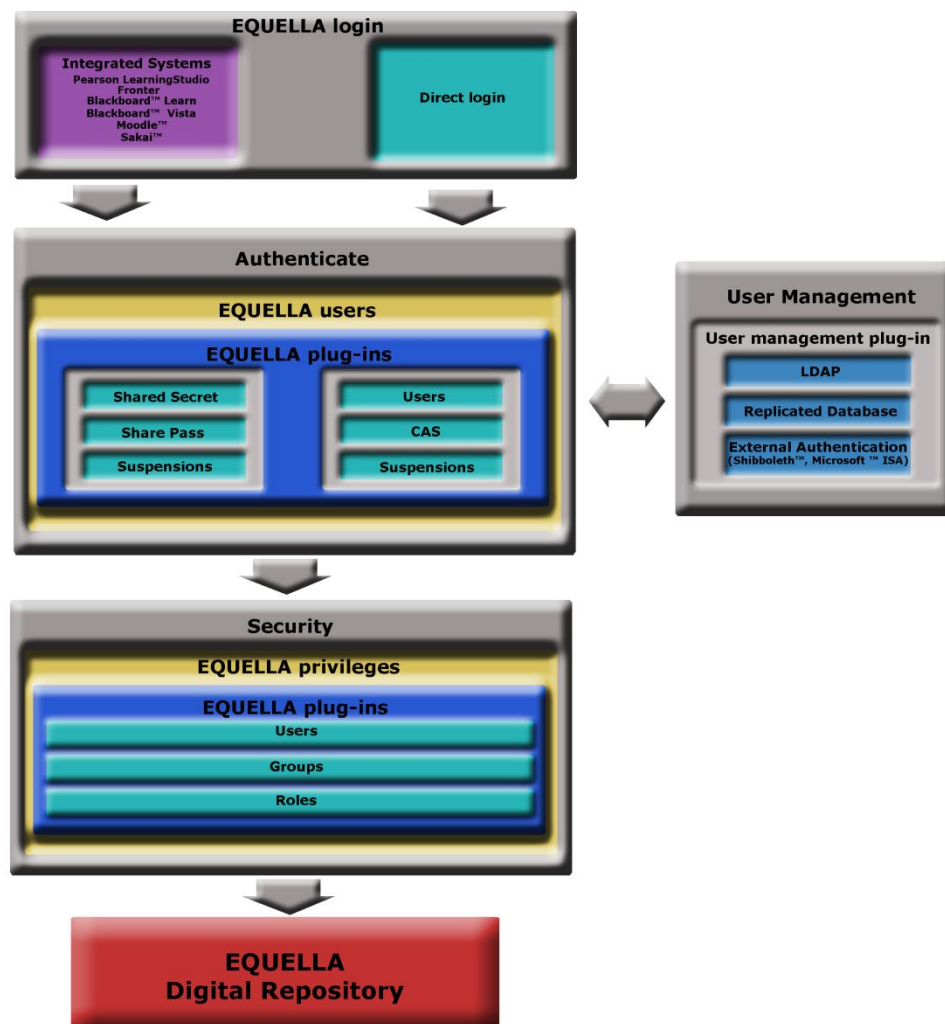


Figure 52 EQUELLA User Management

Harvest content

EQUELLA Harvester

Content from third-party sources can be obtained by using the EQUELLA Harvester tool and uploaded to your EQUELLA repository. This content is obtained from The Le@rning Federation (TLF) using the Learning Object Repository Access and eXchange (LORAX) protocol, while metadata can be gathered with the Open Archives Initiative (OAI) metadata harvesting protocol and content from other EQUELLA Digital Repositories can also be collected.

The Harvester Profiles tool:

- enables the harvests to be scheduled;
- provides harvesting of metadata and resources;
- allows harvesting of other EQUELLA repositories, enabling community repositories to be created with sizable pools of content;
- allows multiple harvester profiles to be created and managed via the Administration Console.

Configurable OAI Sets

EQUELLA extends its selective harvesting of repository items and their metadata by providing configurable Open Archive Initiative (OAI) Sets. This functionality is provided through Dynamic Collections, which provide administrators with the ability to define a collection spanning multiple collections and individual items for use in OAI harvesting. Functionality includes:

- allowing for new OAI Sets to be defined;
- OAI Set results can be filtered by Collection and Schema;
- 'Virtual' OAI Sets can be created for item metadata values;

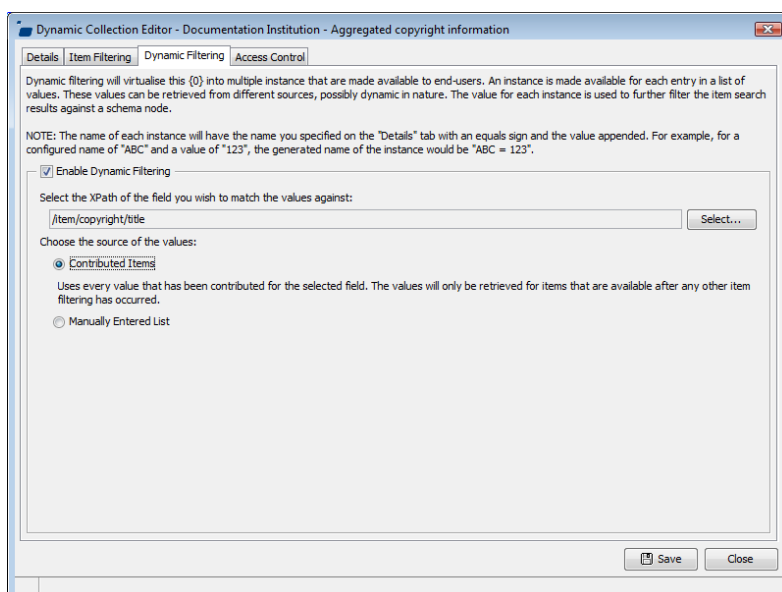


Figure 53 Dynamic Collection filtering



Figure 54 Result List Set

Dynamic Hierarchies

Dynamic hierarchies allow administrators to create an environment where users can browse through categories to target their searches. Hierarchies within the repository now have the ability to be dynamic in nature. When configuring a new Virtual Topic a metadata node can be selected to return either: all contributed resources with a value for the given field, or resources from a manually-created list. The dynamic nature of this feature ensures that newly contributed content is populated within a hierarchy.

Hierarchy topics can be dynamically created from a set of key learning areas using the Virtual Topics feature. When relevant items are contributed, a value would need to be entered, which then automatically displays the relevant hierarchy topic upon submission.

Key resources can be added to and removed from dynamic and static hierarchies from the hierarchy topic/subtopic results page, the search results page and the resource summary page. The adding and removing of key resource from hierarchies is easy to manage, ensuring this functionality is user friendly.

Taxonomies

EQUELLA supports longer and additional hierarchical terms in taxonomies. Users have the ability to build taxonomies that actively align with their custom contributions. By enabling higher amounts of specific data to be selected by a user during contribution, EQUELLA presents users with the opportunity to build taxonomies that actively align with their custom contributions.

Support for Google™ Analytics

EQUELLA provides support for Google Analytics, a free service offered by Google that is used to monitor site traffic and provide metrics for site development.

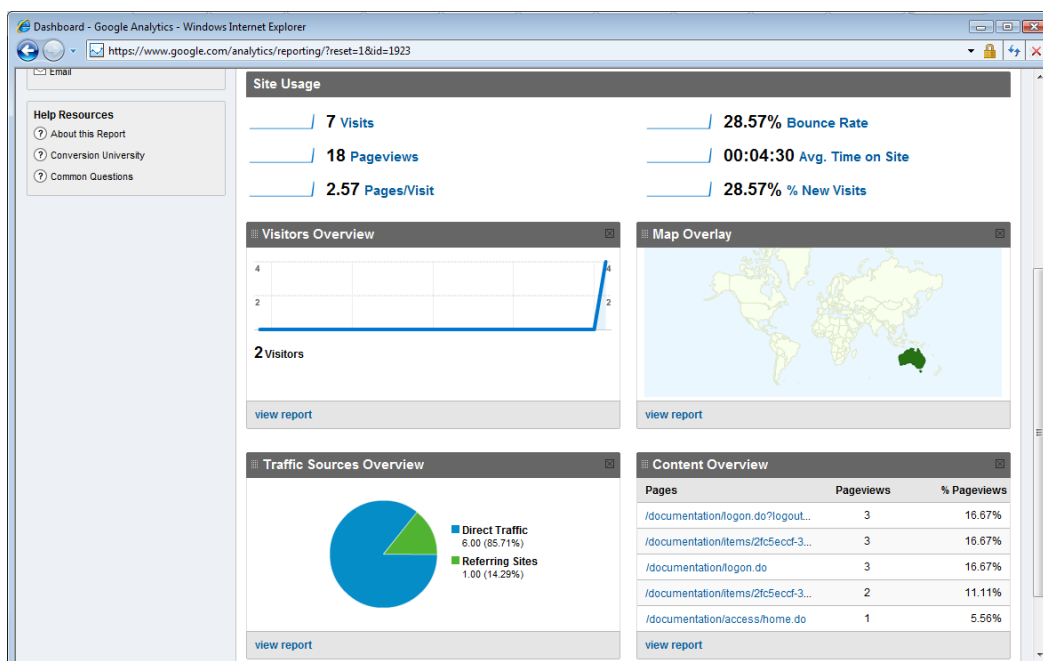


Figure 55 EQUELLA website data provided by Google Analytics

Standards supported

EQUELLA provides extensive support for many well-known standards prevalent in the eLearning and knowledge repository space. Schemas in EQUELLA are compliant with Dublin Core, AGLS, IEEE LOM (Learning Object Metadata) and variants including CanCore, VETADATA and TLF (The Le@rning Federation).

EQUELLA complies with many other open standards such as:

- SCORM 1.3/2004, IMS, IMS DRI and METS—for import and export of items;
- Z39.50, MERLOT, SRW, LORN and edna—for remote repository searching including the ability to transform and import records;
- OAI-PMH and LORAX—for harvesting;
- LDAP, CAS and External Authentication (Shibboleth and Microsoft ISA)—for authentication;

- SOAP and WSDL—for web services;
- RSS and Atom—for publishing;
- ODRL—for storage of Digital Rights; and
- MADS, MARC 21, MARCXML and MODS—for library system interfaces.
- SHEX (Sharing Exchange) and MEX (Metadata Exchange) for access to free content provided under the National Digital Learning Resource Network (NDLRN)

The architecture of EQUELLA enables support for numerous other standards.

Accessibility Standards

EQUELLA's user interface is also accessible to people with disabilities. The platform meets the international web content accessibility guidelines from the World Wide Web Consortium, specifically Web Content Accessibility Guidelines Version 2.0 (WCAG 2.0) at Level AA, and also meets the current US Government Section 508 Standards, specifically § 1194.22 Web-based intranet and internet information and applications. Aligning with these guidelines ensures the digital repository provides improved usability for those with disabilities, and also for users in general as the guidelines address a wide range of issues.

Supported file types

The EQUELLA Digital Repository stores files in their original format, with EQUELLA supporting most common file types including doc, docx, xls, xlsx, ppt, pdf, html, bmp, gif, mov, jpg, png, and swf. Administrators can exclude files considered to be a security risk, such as com, bat, scr, shs, exe, and vbs, according to institution-specific policies.

EQUELLA also handles complex file types such as zip and structured content (IMS, SCORM and METS packages), allowing access to their constituent files. When a content package is uploaded, it is unpacked and its structure is recreated in the repository.

EQUELLA supports conversion of Microsoft Word™, PowerPoint™, Excel™ 2003 application files to HTML format.

Extensibility via Web Services

EQUELLA provides a series of external Web Service interfaces to programmatically control much of the core system functionality including:

- Document submission and retrieval;
- Searching (standard, guided and expert metadata searching);
- User management and authentication;
- Course inheritance;
- Workflow management; and
- Item configuration.

Import/export engine

EQUELLA uses a powerful import and export engine that uploads external data sources comprising metadata or a combination of metadata and file attachments to the EQUELLA Digital Repository.

EQUELLA has the ability to specify XSLT import and export transforms for schemas, allowing items to be stored in one generic internal metadata schema format and then transformed on output to be fully compliant with all current standards.

Active Cache

The Active Cache provides a regularly updated, localised content store for schools or campuses that either have slower connection speeds, or are geographically separated from their digital repository. The Active Cache works in conjunction with other well known web-caching technologies in an effort to reduce cost and delays while improving access to content. EQUELLA Active Cache provides:

- A solution to common bandwidth limitations found in centralised digital repository solutions;
- Localised pre-populated e-learning content;
- Active synchronisation with a central EQUELLA Digital Repository;
- The ability to selectively filter the types of materials to be actively cached; and
- Compatibility with well-known web caching solutions.

EQUELLA support

International User Community

The EQUELLA User Community facilitates interaction amongst the growing community of EQUELLA users.

The EQUELLA User Community enables members to contribute, share and stay connected with other users globally, while extending their knowledge of EQUELLA.

To join the EQUELLA User Community, please email community@equella.com to receive an invitation to become a member of the group.

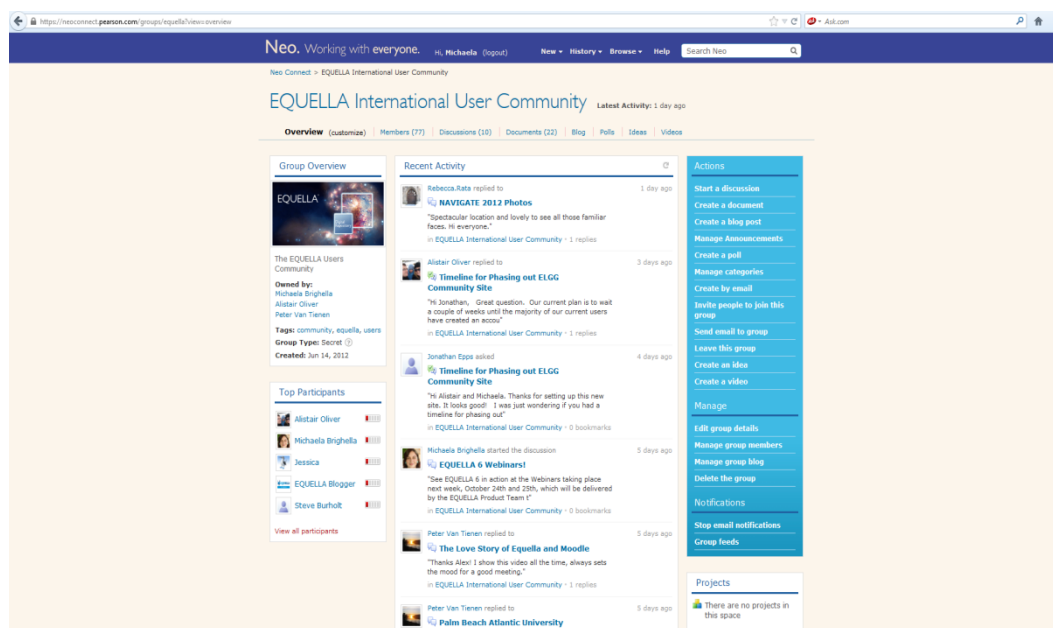


Figure 56 EQUELLA International User Community

Certification Programme

The EQUELLA Certification Programme is designed to equip users with the skill set to interact with EQUELLA effectively. The EQUELLA Certification training courses are based on fundamental technical use aspects of EQUELLA, but also include the context of educational technology theory around learning content management.

EQUELLA provides the following training courses:

- **EQ101**—EQUELLA Digital Repository Certification (Core Principles).
- **EQ201**—EQUELLA Content Administrator Certification.
- **EQ301**—EQUELLA Application Administrator Certification.
- **EQ302**—EQUELLA Advanced Application Administrator Workshop.
- **EQ303**—EQUELLA Scripting Workshop.
- **EQ304**—EQUELLA Reporting Workshop.
- **EQ305**—EQUELLA Advanced Scripting Workshop.
- **EQ401**—EQUELLA System Administrator Certification.
-

Contact info@equella.com to organise certification training for your institute.



Figure 57 EQUELLA Certification Programme

Client support

EQUELLA system administrators have access to the EQUELLA Support Site.

Contact support@equella.com to obtain a login to the Support Site:
<http://equella.custhelp.com/>

EQUELLA Client Support provides:

- EQUELLA documentation;
- Knowledgebase and RSS feed;
- Open and track support tickets;
- EQUELLA Installer and upgrades;
- Internationalisation packs;
- Sample reports;
- Miscellaneous tools; and
- Access to consultants.

Pearson Professional Services

Pearson Consultants offer at-cost services including:

- Customised scripting;
- Integration enhancements;
- Transformation templates;
- Security configuration; and
- Bulk importing of items and user records from legacy systems.

Contact professional.services@pearson.com.au for all educational, institutional and platform or product related enquiries.

Technical requirements

Client Requirements	
Platform*	Applications*
<ul style="list-style-type: none"> Windows XP, 2003, Vista, 7 Apple Mac OS X+ Oracle Solaris 8, 9 and 10 Linux 	<ul style="list-style-type: none"> Microsoft Internet Explorer 8, 9 and 10 Apple Safari 5 or higher Mozilla Firefox 4 or higher Google Chrome 9 or higher Oracle Java 7 for Administration and applets <ul style="list-style-type: none"> Java Virtual Machines

Server Requirements*
Operating System
<ul style="list-style-type: none"> Microsoft Windows Server 2003 and 2008, and Windows 7; or Oracle Solaris 8, 9 and 10; or Most Linux distributions
Supported Databases*
<ul style="list-style-type: none"> Oracle 9i, 10g and 11g Microsoft SQL Server 2005, 2008, and 2008 R2 PostgreSQL 8.0 or higher
Application Server Requirements
<ul style="list-style-type: none"> Java 7 (the latest point release at time of installation is recommended) ImageMagick 6.4 or higher
Messaging Subsystem Requirements
<ul style="list-style-type: none"> Standard SMTP compliant mail server.
Security Infrastructure
<ul style="list-style-type: none"> EQUELLA provides its own internal access control security layer. If SSL enabled logins are desired, a SSL Certificate is required; or LDAP – Sun ONE, Microsoft Active Directory and other LDAP compliant services.

Application Development Language
<p>EQUELLA is a J2EE application. The Administration Console is a lightweight Java Web Start application that is fully browser compliant.</p>

*Some end-of-life conditions may apply. Please contact Pearson for details.

Hardware Recommendations
Small Pilot
<ul style="list-style-type: none"> One machine serving as both an application and database server Each machine requires: <ul style="list-style-type: none"> A single 64 bit CPU 8 GB of Ram 80 GB HD
Up To 150 Concurrent** Users
<ul style="list-style-type: none"> A two-machine solution: <ul style="list-style-type: none"> one dedicated application server one dedicated database server Each machine requires: <ul style="list-style-type: none"> 2 * 64 bit CPU 8 GB of Ram for application server 4 GB RAM for the database server 200 GB HD
150 to 250 Concurrent** Users
<ul style="list-style-type: none"> A two-machine solution: <ul style="list-style-type: none"> one dedicated application server one dedicated database server Each machine requires: <ul style="list-style-type: none"> 4 * 64 bit CPU 8 GB of Ram for application server 4 GB RAM for the database server 200 GB HD
More Than 250 Concurrent** Users
<ul style="list-style-type: none"> A clustered solution delivering greater capacity and resilience: <ul style="list-style-type: none"> multiple clustered virtual or physical application servers one dedicated database server Each application server requires: <ul style="list-style-type: none"> 2 * 64 bit CPU 8 GB of Ram 200 GB HD The database server will scale in relation to the number of application servers Centralised content storage <p>Please contact your Pearson consultant or Client Support for additional details on a clustered architecture or use of virtual machines.</p>

** Concurrency refers to simultaneous users, not licensed users.

Contact Client Support

We are always happy to help.

If your organisation has a support agreement with EQUELLA then help is available at <http://equella.custhelp.com/>.