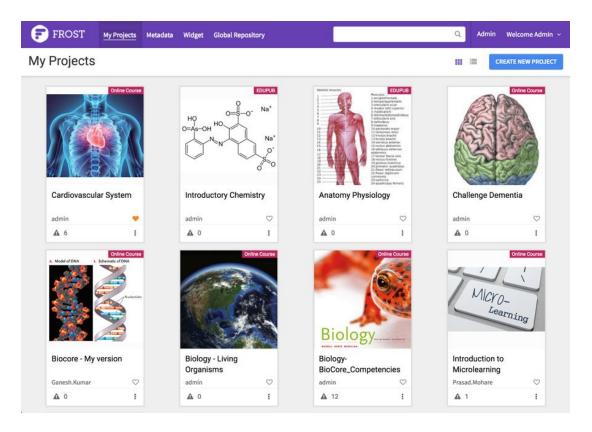# LearningMate Solutions - Creating Content Using SkillsCommons

MIssion: Design a course [sample] by using different kinds of material found in the SkillsCommons repository. Add new value and capabilities to the content by improving the look and layout; and by aligning various assets to new keywords and other types of metadata that help facilitate high-volume authoring or for certain types capabilities of LMSs that support content metadata.
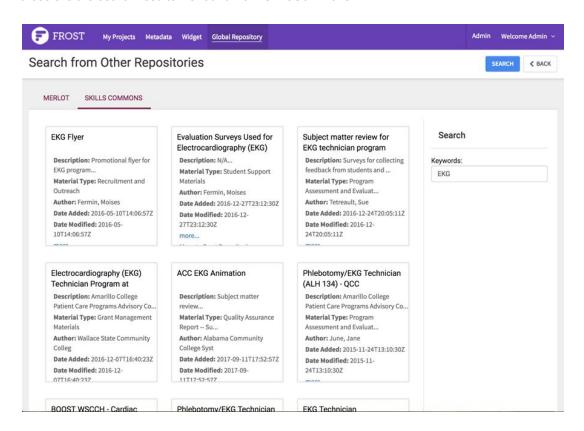
Solution: We used LearningMate's "pre-LMS" online authoring tool and Learning Object Repository, FROST. It has new API connections to MERLOT and SkillsCommons, enabling keyword search in MERLOT and SkillsCommons while logged-in to FROST. After finding some sources for our course [sample], we were able to match various assets to our course outline and learning objectives. We brainstormed on the best way to reuse the content and decided if we could 1) use it as is; 2) modify with minimal effort; and 3) modify it with significant effort. If we deemed the content too much effort to modify, we went back to SkillsCommons and simply performed another search until we found content that worked better for our purposes, timeline, and budget.

Result: We found three great sources to round out even a single lesson. Some content we modified by adding color from an original black and white printed PDF source. We also found some online-native content containing high-quality illustrations. We were able to use the illustrations and text for the presentation portion of our course with no modifications and were able to create our own practice activities to align with the presentations and high-quality images. And finally, we found a fully-built interactive quiz. It had already been built for integration to an LMS, but our web developers helped us modify some of the code, so it would work for our new course, which we wanted to be deployable to any LMS. With our design plan completed, developing was easy. We built our outline in FROST, copied in the content in our new desired sequence, aligned the relevant metadata to our new content, and previewed for final published outputs for LMS delivery to students.
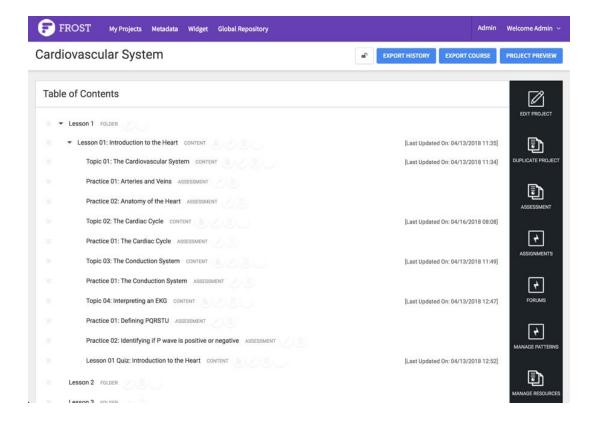
The Steps: Shown here, is our project homepage in FROST. Our course built of newly found SkillsCommons material is the first one listed, Cardiovascular System.
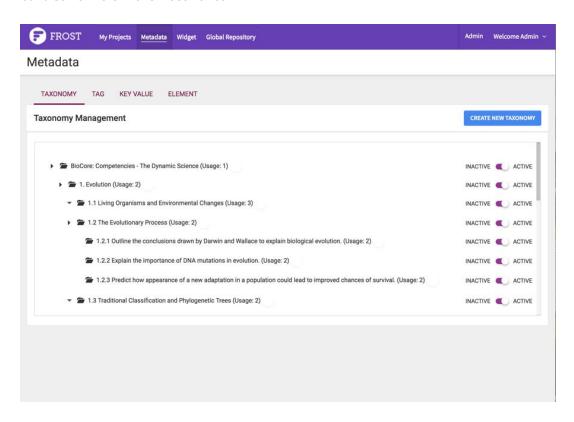
FROST has API connections to SkillsCommons. In this example, we show a search for the term "EKG" and these are the search results we found from SkillsCommons.
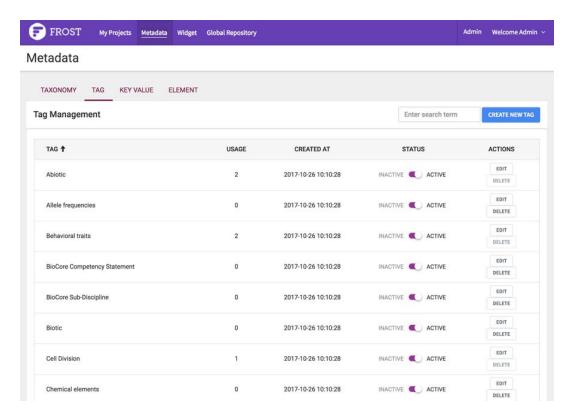

We selected our project title and built the course outline shown here. We built an outline of Lessons, each containing multiple topics. FROST contains an easy-edit interface for building outlines, so this only took us a few minutes.
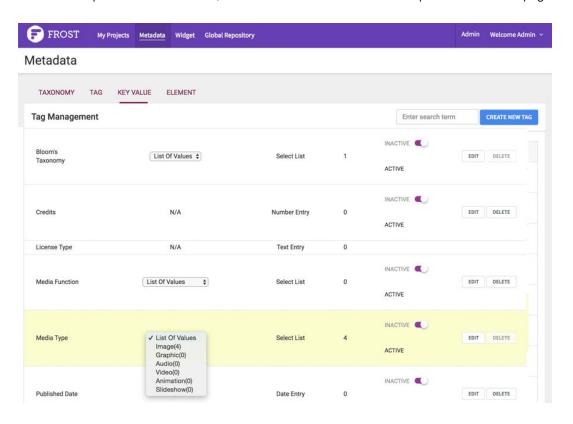
The screen presented here, shows a full set of BioCore competencies already available to us in FROST. If an institution should need alignment of our course to BioCore, we can associate our outline to the relevant items found somewhere in this massive list.
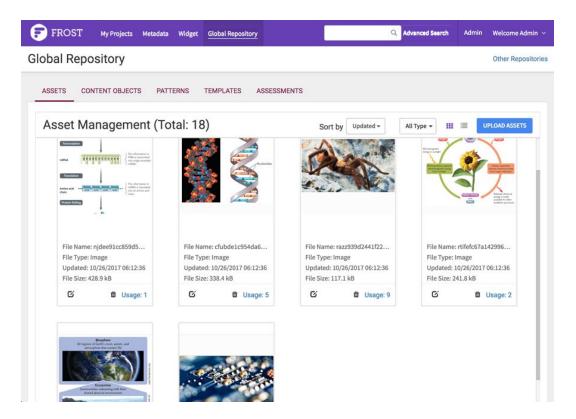

In the metadata editing section shown here called Tag, we were able to search keywords that we wanted to use as tags on our content. If we couldn't find a word we wanted, we simply added it to the list.
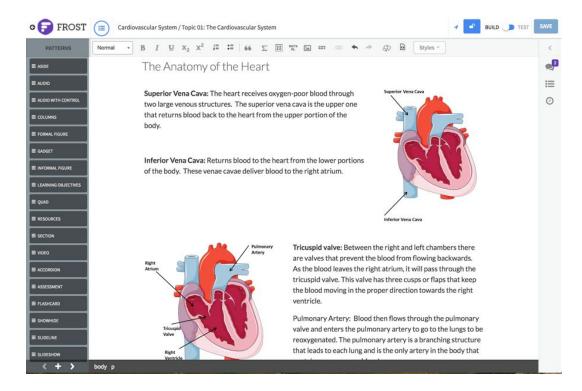
In the metadata editing section shown here called Key Value, we were able to select which key metadata we wanted to use as essential alignments to our course content, such as Bloom's level, the media type, teaching function for a particular media asset, or our estimated time on task for a particular asset or page.
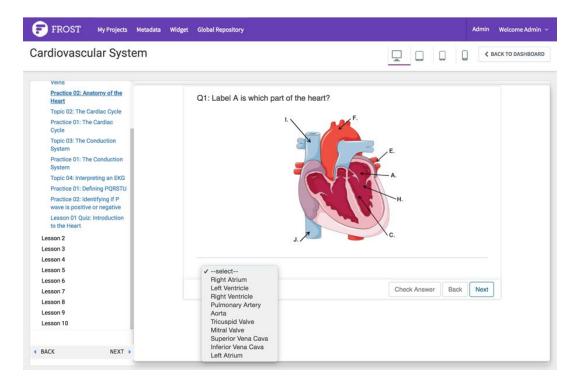

FROST has a global repository for storing and managing media assets. Here, we uploaded all of our finished media and tagged it with the appropriate metadata.

This screen shows some of our selected content from the SkillsCommons repository directly pasted to the WYSIWYG editor in FROST. Our images are tagged with metadata and ready for placement on the page using the editor. We could preview these scrolling pages to see how our pages look on a computer or laptop, tablet, or phone.

This is one of our practice activities. For the image shown here, we removed the terms that had been placed on the original illustrated diagram and replaced them with letters. This allowed us to write some quick quiz questions to prompt the student to label the diagram based on their understanding of the new material we just presented in the lesson.

For our final lesson quiz, we used this preconstructed interactive media asset that we found in SkillsCommons. This took a little extra work compared to the other assets we found. We had some help from a web developer to remove some code that connected to an old LMS and we had to do a little extra due diligence to assure that everything presented in the complex object was presented in our presentation and practice materials. But this would be far less time and money then trying to build this complex media object by ourselves.

When authoring and previewing for our computer and mobile outputs was complete, the course is ready for export to the desired file type appropriate for the LMS of our choice. The publish export tool supports regular HTML or HTML wrapped in code for those LMSs that support the SCORM or IMS standards. The drop down menu also shows a direct publish from FROST to the Canvas LMS.