penly licensed educational resources (OER) are, in many cases, an untapped opportunity for free, quality resources to expand a school library collection. As with any library asset, they must be evaluated to ensure that they are in fact free and openly licensed. The Maryland State Department of Education (MSDE) has created an OER repository and has learned lessons throughout the journey. The following article details the insights gained during this process.

In the Beginning

In the fall of 2015, leaders from the MSDE attended a kick-off meeting for the U.S. Department of Education's #GoOpen initiative. This national initiative supports a collaborative effort to curate, create, and share openly licensed teaching and learning resources.

In conversations within the MSDE following that meeting, the advantages of implementing a repository of OER materials for Maryland educators and learners quickly emerged. Providing access to lessons, lesson seeds, interactives, and other resources vetted by educators nationwide, through a searchable location, would support personalized instruction. Additionally, educators spend hours creating instructional resources similar to those developed by other educators within their school, school system, state, and/or nation. By building a repository for digital resources that meets learner needs, the MSDE would reduce or eliminate educators' redundant efforts when creating lessons.

In February 2016, Maryland became a #GoOpen state by agreeing to:

· Adopt/Implement a state-wide technology strategy that includes the use of openly licensed resources;

By building a repository for digital resources that meets learner needs, the MSDE would REDUCE OR ELIMINATE **EDUCATORS' REDUNDANT EFFORTS** when creating lessons.

- · Develop and maintain a state-wide OER repository;
- · Publish OERs to the Learning Registry, a nationwide database of OER resources designed for developer (not educator) use;
- · Participate in a national community of practice called the Professional Learning and Metatagging Communities of Practice;
- · Create a webpage to share Maryland's commitment to and progress with the #GoOpen initiative.

Outreach

During the 2016 legislative session, a bill ("Maryland Open Source Textbook") was passed requiring Maryland universities to begin converting textbooks to an OER online delivery format. Since the MSDE had already started an OER program, the bill provided an opportunity to develop an innovative collaboration between the MSDE and higher education leaders. Both groups realized that with a common repository, faculty at the college level could easily access K-12 instructional resources that may provide remediation for students in introductory courses and, at the same time, provide K-12 educators access to college-level resources that may support instruction for more advanced K-12

learners. As a result of this collaboration, each group opted to develop resources within the same repository.

Local School System Involvement

Currently, two of Maryland's Local School Systems (LSSs) have committed to become #GoOpen districts. Both school systems are creating and curating resources to replace at least one of their locally approved textbooks. It is anticipated, based on interest from other Maryland LSSs, that several more will soon join the #GoOpen movement in Maryland.

With the assistance of a work group of twelve LSS leaders, strategies related to moving the project forward were identified and implemented. These strategies included:

- · Identifying marketing avenues for the initiative;
- Researching existing OER resources and programs;
- · Identifying the components needed for a resource to be considered an OER:
- · Identifying evaluation rubrics that address OERs; and
- · Determining how personalized professional learning should be delivered across the state.

The decision was made to develop a Professional Learning cohort of educators in each LSS to receive in-depth training. All twenty-four Maryland Local School Systems and the Maryland School for the Deaf participated. This training provided more than sixty educators with the knowledge and tools needed to replicate the professional learning they received with educators in their systems. Grant funding was provided to the twenty-five cohorts to support their LSS professional learning efforts.

The Maryland Repository

Maryland, along with other states, was interested in an education-focused repository that was easily navigable, searchable, and encouraged collaboration among states. The Learning Registry was not designed to meet these needs so interest in the registry dwindled. As a result, Maryland and other states shared information as they independently searched for a viable solution.

The intent of this solution was to provide access to relevant, current, interactive resources from across the nation that would support Universal Design for Learning principles and would be available anytime and anywhere. The decision was made that, once the repository was identified, the MSDE would review resources for content, copyright, and accessibility prior to endorsing and uploading them to the repository.

After researching different platforms, the MSDE selected the OER Commons website (<oercommons.org>) as the platform for its repository. The platform provided an openly available, searchable database of resources, and supported the creation of content and the curation of content into collections. Additionally, collaborative content development work areas,

crowd sourcing, and evaluation tools were available to organizations.

One of the most attractive features of the OER Commons platform is that it enables organizations to create customized landing pages, groups, and content collections within a personalized hub. These hubs, or defined web spaces created by an organization but open for public access, allow organizations to:

- Create and manage "Content Collections" (resources grouped by content);
- Host "Groups" (interactive workspaces); and
- Share news and events related to a specific content area or project.

Currently, Maryland is one of fourteen states with shareable resources in the OER Commons repository. Materials in the Maryland Hub are publicly searchable by state and national content standards, subject area, educational level, material type, language, and content provider.

Inspired Designers

During the spring of 2018, Maryland's assistant superintendents identified educators in each of their respective systems who were tasked with creating resources to populate Maryland's OER repository. More than one hundred educators who were strong in content, instruction, and technology became the first set of "Inspired Designers." Specialists in English language learning, instructional technology, special education, and school librarians were included in each Inspired Designer set in order to ensure resources were appropriate across content areas and ability levels.

The MSDE Instructional Technology staff and LSS cohort members planned and conducted professional learning workshops for the Inspired Designers. These workshops were based on Maryland's OER considerations for copyright, accessibility, privacy, and evaluation to ensure that all resources met the minimum legal and technical standards for digital content as discussed below. During these workshops, several Inspired Designers were overheard saying, "Every educator needs to know this information!"

The last two days with the Inspired Designers were spent with the MSDE's content specialists who provided guidance to the educators as they curated and created resources. Within OER repository Group areas, educators used content creation tools to generate resources. These resources were uploaded to the Maryland Hub, titled "Maryland's OER Project: PreK-12," that contains content libraries for thirteen subject areas including school library media, gifted and talented, and English language learning, as well as core content areas. As of June 2019, the MSDE has added 353 resources, 33 Content Collections, and 20 Groups to the hub.

Copyright Considerations

The nature of OER embraces modification and distribution, so copyrighted materials cannot be included in their creation. The three most common copyright concerns found when the MSDE reviewed the resources created by the Inspired Designers were the use of protected images, text, and the omission of readable hyperlinks.

When considering images for use in an OER repository, a distinction needs to be made between free and openly licensed. Most images that are labeled as free are in fact free for personal use and often one-time personal use. However, openly licensed resources are intended

for reuse, modification, and even commercial use, often with no need for attribution.

Text is very easy to overlook when considering copyright. Most historic documents are no longer under copyright protection. Documents created by the U.S. federal government are in the public domain, so copying blocks of text from those original documents is allowed; however, text from a webpage that analyzes or comments on those documents is protected. The best practice for using text from a webpage is to look for the terms of use or copyright information and read the usage rights. The same is true when using any website that requires an account to access full-text content. The terms of use indicate that most subscription websites allow only free personal use.

Hyperlinks should be readable text and not a URL address. A concern that arose from the MSDE reviewing process of the Maryland OER was the use of links to videos. Though linking to videos is most often permissible, if the link is broken, the user has no way to find the video. This is where attribution comes in. If the text reads "use the (title) video from (source)" with the link to it, the learner still has the information needed to access the video.

Generally, the best advice for copyright compliance on OER is to remember that free is not necessarily openly licensed, and if in doubt, link to the source rather than inserting it.

Accessibility: It's the Law

The accessibility training provided to the Professional Learning cohorts and the Inspired Designers included federal, state, and OER Commons standards for accessible design. This training also afforded the Inspired Designers the opportunity to later create resources that were more

accessible and eliminated the need to spend time remediating errors.

The Web Content Accessibility Guidelines (WCAG) are international standards that ensure accessibility of digital resources for all learners, regardless of ability. All resources developed for the Maryland repository undergo a thorough accessibility review using the WCAG 2.0 standards to identify and correct any accessibility errors. There are five common aspects of formatting that affect accessibility and are found in various contents and types of resources: alternative text, hyperlinks, color/contrast, document structure, and descriptive text for audio and video files.

Alternative text, or alt text, is critically important for non-text content including pictures and charts. Accessibility requires that the alt text is meaningful and provides enough description to create an equitable user experience.

When adding a hyperlink to a resource, each link should be descriptive in nature, rather than just listing the web address. This descriptive text allows the learner to determine the purpose and destination of the link from the text alone.

The third, and most easily recognizable, concern is with color contrast. Color contrast is paramount for learners with low vision or color blindness. The standards ensure that the minimum contrast ratio is maintained throughout the content and that color alone is not the sole means of conveying content.

Document structure refers to headings, lists, and tables. Keep in mind learners with low vision may need to use a screen reader. Proper document structure guarantees that the text read by the screen reader will flow and be understandable to the learner.

When using video or audio files in a resource, accessibility standards require closed captioning and/ or a descriptive transcript. When developing presentation slides, all slides should have appropriate, unique titles and the reading order should be accurate to create a logical flow of information.

The workshop participants agreed that the opportunity to meet with an accessibility specialist and work through the review process of their resources was invaluable and deepened their understanding of the standards and their application to their daily practices.

Privacy Is Everyone's Responsibility

Another concept the MSDE team realized needed to be addressed when building a digital repository was privacy. The importance and urgency regarding privacy and the effect on learners, educators, and school systems is a high priority in Maryland. Student privacy can be a concern with OERs, especially when the resource includes a third-party application. Maryland's LSSs are addressing privacy by creating local policies that adhere to federal laws and protect learners' personally identifiable information. As a result, the MSDE team focused its privacy presentation on the federal laws and general knowledge that would be useful for all.

The workshop began with a hands-on experience analyzing the accuracy of personal information currently accessible through a simple web search. This was followed by a review of the privacy laws that are essential for educators when selecting OERs and other digital resources. The Children's Online Privacy Protection Act (COPPA), Children's Internet Protection Act (CIPA), and Family Educational Rights and Privacy Act (FERPA) were explored through

interactive activities to ensure educators grasped the nuances of each and their application in the school setting.

Another important consideration was the privacy policies of some common digital resources and OER sites. The policies from these sites were analyzed using real-world scenarios, which led to deep discussions regarding what personally identifiable information is and how much information should be released.

There were three primary privacy outcomes for educators following this workshop:

- Knowing how information can be used and shared is vital to protecting educators and learners.
- Privacy is everyone's responsibility, and educators should be guiding their learners to make wellinformed decisions when they select resources.
- Educators should have an understanding of the privacy policies of individual local school systems before integrating any resources into teaching and learning.

Evaluation

The final component addressed in the workshops was the evaluation of resources for quality. The training focused on the use of a recommended evaluation rubric and norms that should be established when evaluating resources. The MSDE used Achieve's OER rubric when vetting resources. This is also the rubric recommended by OER Commons.

As the educators worked together to apply the rubric to a resource, teams agreed that the final score was not as important as the discussion that occurred throughout the evaluation process. The educators also realized that the critical first step in the evaluation process was identifying

the non-negotiable factors, such as copyright, alignment to standards, or inappropriate materials, that must be met before a formal evaluation begins. Educators found the rubric to be helpful in reinforcing their evaluation of resources. Participants anticipated using it regularly when evaluating resources to augment their lessons.

Participants detailed additional evaluation recommendations, including:

- Understanding the evaluation process already established in their school;
- Sharing professional learning on the Achieve rubric and the evaluation process prior to a school system review of submitted OFRs.
- Reviewing multiple resources simultaneously so that comparisons can be made; and
- Identifying a purpose for each resource being reviewed.

Moving Forward

The establishment of Maryland's OER project was an opportunity to bring highly effective educators together to identify best practices when creating OERs. These professional learning workshops provided valuable insights to apply to daily practices. All educators need to be aware of the new accessibility standards that expand compliance including mobile technology, low vision, and cognitive disabilities. The MSDE also plans to host future workshops with new sets of Inspired Designers and specialists to expand Maryland's OER repository.

The presentations used for the workshops are publicly available in the Maryland Hub on OER Commons under the "Professional Learning" collection (<bit.

ly/OER-ProfLearning>). This collection contains many links to valuable resources that will expand professional learning on these topics. Overall, the most important outcome from the workshops was the importance of ensuring OERs are copyright free and accessible and ensure learner and educator privacy protection.

AASL

Learn More about OER with the "AASL OER Toolkit"

For more guidance on the school librarian's role in curating and creating OER, check out the "AASL OER Toolkit." The toolkit is organized using the Domains and Shared Foundations of AASL's *National School Library Standards* so users can clearly identify potential roles, responsibilities, and opportunities. Viist <www.ala.org/aasl/advocacy/tools> to explore the toolkit.



The Office of Instructional Technology and School Library

Media at the Maryland State Department of Education supports state and national efforts that transform teaching and learning in a digital world. They provide leadership, coordination, and support services for the implementation of the Maryland School Library Media Standards and the Maryland Digital Learning Standards for Students and Educators.