

MERLOT Position Paper

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MERLOT was founded in 1997 as a resource for educators and staff in the California State University System. It began as a metadata repository to help faculty find, evaluate, and share learning materials¹ that they had found useful on the Web. It soon became clear that the Cal State system was not unique in finding this to be a valuable effort and the project evolved into a consortium in which other university systems and organizations (such as IMS) became partners.

We see the Teaching/Learning lifecycle as having five steps: (1) discovery and research for teaching, (2) learning experience design, (3) teaching (delivery of learning experience), (4) learning (response to teaching), (5) assessment, evaluation, and feedback for student learning. Traditionally, MERLOT has focused only on the first two of these. The MERLOT metadata repository, peer review methodologies, and other community-driven features support instruction. MERLOT also engages in faculty development programs to help faculty understand how to integrate the learning material into their classrooms effectively. Other features, such as Personal Collections in MERLOT support the same needs.

In the past two years, however, MERLOT has started to investigate how to address the common issues found in other steps in the lifecycle (as well as author concerns, but that is for another discussion). To this end we have made alliances with learning management companies such as WebCT, Blackboard, and Desire2Learn to encourage and support faculty's *active* use of learning materials in their teaching; at the present time more than 75% of US faculty using an LMS only use it to post syllabi or other text materials. MERLOT has also begun strategic partnerships with companies such as IBM, Sun, and McGraw-Hill, all of whom are working on repository technology for use in higher education content delivery/distribution. MERLOT and our partners believe that it is crucially important to work out how to deliver, protect, integrate, and sometimes even sell content.

The other relevant piece to the MERLOT puzzle is our work in Federated Searching, and now GLOBE (Global Learning Object Brokered Exchange). Federated Search begins with the realization that a metadata repository originally began as the answer to the instructor question "How can I find some appropriate learning materials to use for my class?" That could best be answered by, "Go to a repository where materials like that have been collected by faculty like you."

But the next question has become, "Which repository should I go to?" One answer to that question is to make sure that the faculty member can be connected with the relevant materials regardless of which repository has information about the material. MERLOT's approach has been a loosely coupled federated search architecture using web services. The technical issues are not the only significant hurdles, however. We found that significant resources have to be dedicated to creating and maintaining the agreements with other digital libraries. It is also a concern that similar efforts would replicate effort and perhaps not be compatible. Hence GLOBE, a cooperative organization with five partners, MERLOT, EdNA Online (education.au), eduSource Canada, NIME (Japan), and ARIADNE (European Union). The main thrust of GLOBE is to

¹ In MERLOT we have used the term "learning material" in lieu of "learning object" deliberately, as we found that the great majority of faculty had no clue what a learning object was, while the majority of them understood what learning material was and could see how learning materials such as simulations could be of use.

work together to create a global network of federated repositories, eliminating replicated administrative, technical, and architectural overhead.

Currently, the theoretical connections between MERLOT and CORDRA are manifold. There are some contrasts of note, however. The most important of these concerns our philosophy regarding metadata. There are four dimensions of difference that are relevant.

1. Static versus evolving: CORDRA assumes that metadata will not change once created, while metadata in MERLOT continually evolve with more detail (comments, reviews, assignments, perhaps another relevant subject category and URL update, etc.)
2. Author- or machine-authored versus user-authored: CORDRA assumes that manual metadata tagging and cataloguing is difficult and not effective; MERLOT finds user-authored metadata to be essential to the quality and the community in MERLOT.
3. Banal versus eclectic: metadata are assumed to be standard and only interesting for the discovery of a learning material. MERLOT's metadata is an essential factor in evaluating whether or not the material is going to suit the faculty member's needs. The completeness, extensiveness of annotations, and information on how it has been or could be used or organized are essential in supporting all dimensions of faculty decision making.
4. Not itself valuable versus precious: This dimension could be called, "to harvest or not to harvest?" because the decision to harvest metadata or even allow harvesting assumes a decision about the value of the metadata itself. Repositories which house objects have it in their interest to promote the objects they have - making the catalog free and available generates traffic. In contrast, MERLOT, which does not house any of the content, sees metadata as the lifeblood that makes MERLOT interesting - making the catalog free decreases traffic.

These contrasts are important to understand and account for when thinking about what sorts of collaborations and connections can be made between metadata-focused and object-focused organizations.