

Learning Commons Architecture

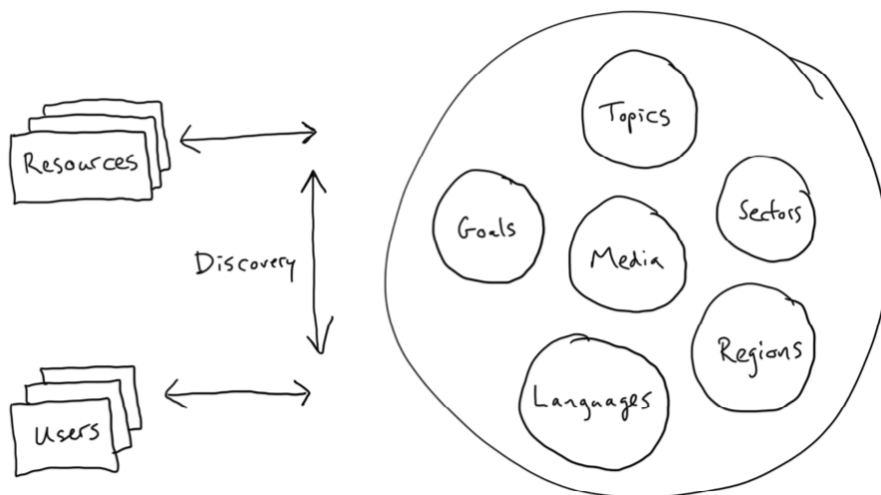
The Learning Commons seeks to provide resources on platform cooperativism which can serve a wide range of users and needs, from academic researchers to co-op worker owners and everyone in between. As such, it needs to incorporate robust methods of structuring and discovering resources, in a way that caters to a broad base of user goals, diverse languages, regions, and cultural backgrounds. It should also provide feedback mechanisms for users that will allow them to highlight resources which they find useful, improve the discoverability of resources related to given topics, and contribute resources of their own for inclusion in the Learning Commons. Here are some preliminary architectural approaches to address these needs.

Platform

The Platform Cooperativism Consortium website is built with WordPress, and as the Learning Commons will need to integrate with it, we intend to use WordPress as the basis for the Learning Commons application. WordPress provides APIs for the creation of [content types](#) and [taxonomies](#), which will facilitate the creation of the resource object type and related methods of categorization, including taxonomies such as:

- resource medium/type
- learning goal
- language
- region
- sector
- topic

These taxonomies can also be self-selected by users to facilitate their discovery of relevant content. For example, an academic researcher may indicate their language and region when registering an account, or a guest may indicate their learning goal(s) at the start of a browsing session. The researcher's selected language and region can be saved to their account, and the guest's selected learning goal(s) can be saved in their browser. Their respective choices can be used to personalize content discovery for both types of users.



Engagement Mechanisms

We envision three primary engagement mechanisms for visitors to the Learning Commons, the details of which will emerge from the co-design process:

1. Discovery
2. Personalization
3. Contribution

Discovery builds upon the architectural features described above. In addition to searching by any of the resource taxonomies, Learning Commons users could mark resources as useful or relevant to them, and this anonymized data could be used to suggest these resources to other users. For example, the researcher above has indicated their language and region and self-identified as an academic; if they mark several resources as useful to them, these could be recommended to other registered users or guests who identify similarly. The PHP-ML machine learning library (<https://php-ml.org/>) can provide tools for basic classification if this functionality is desired. Another level of discovery could be providing an opt-in mechanism for registered users to connect with other registered users who share their interests or have experience to offer; co-design activities to date have underscored the importance of dialogue and mentorship in co-op development and it is worth investigating ways in which the Learning Commons could facilitate these processes.

Personalization includes the ability for users to build a collection of resources within the Learning Commons. A collection may be oriented around any of the taxonomies above; for example, a user may create a collection geared towards converting an existing business to a platform co-op. If they choose, they can create a public profile and share their collection with other users.

The last engagement mechanism is **contribution**. Three potential avenues for users to contribute to the Learning Commons are by suggesting improvements to existing resources, identifying gaps in the resource collection, and submitting new resources. Suggested improvements might include refining or expanding the taxonomic data associated with a resource — for example, suggesting that a resource might have value in service of a specific learning goal, or suggesting that the learning goal associated with the resource is not accurate. These types of corrections or additions should be able to be submitted by registered or anonymous users, and added to a queue for review by the maintainers of the Learning Commons. Registered or anonymous users might also identify new goals, topics, or other taxonomic data which could serve as a starting point for new collections of resources, or requesting that additional resources be added to an under-populated goal or topic. The next level of contribution would involve the ability to submit new resources to the Learning Commons. This will require a multilingual form interface for submitting content, and will need to provide robust error handling and guidance to help users provide the required data. The user interface patterns provided by Tenon's accessible form components (<https://www.tenon-ui.info/forms-full-demo>) are an excellent example of how this could work; guidance to users needs to be clear, unambiguous, and responsive to input.