SEAD 2.0 Roadmap and Feature Comparison

Features	SEAD 1.5 (on the Medici Platform)	SEAD 2.0 (on the Clowder Platform)	SEAD 2.0.1	SEAD 2.1 (We plan to migrate SEAD 1.5 users following this release)
Account Creation	Space admins can invite new users directly or users can sign-up and wait for approval from a project admin. Users can login with a local username/password or via Google or ORCID.	Account creation is not subject to SEAD approval. Users can login with Facebook, Twitter, Google, and ORCID.	No change planned	No change planned
Project Space Creation	Teams need to make a request to SEAD to build each Project Space.	Users have the ability to create Trial Project Spaces on their own. Trial spaces give users the opportunity to test-drive SEAD. All Trial spaces are reviewed for verification. Verified Project Spaces offer the highest level of functionality.	No change planned	No change planned
Project Space Customization	Users can add logos and banner images to customize their space. Admins have the ability to customize the set of metadata fields that appear for their space and to include definitions for each of the fields.	Users can add logos and banner images to customize their space. Admins can specify which metadata fields appear in their space.	No change planned	No change planned
User and Role Management	Project Space Admins can use a simplified interface to assign users to admin, author, or viewer roles or can use an advanced interface to define new roles with customized permissions for their space.	Simplified role selection and permissions. Admins can no longer create customized roles for their space.	We will review (and possibly change) the default roles, contingent on user feedback.	More user-friendly process for adding existing SEAD users and inviting new.
Uploading Data	Files can only be uploaded as part of a project space and must be added to each project space separately. Users can upload a new version of a file that is linked to a previous one.	Individuals can upload files that only they see and can also add the files to the Project Spaces they have permissions to add data to. Datasets must be created first in order to upload files.		Improved bulk uploading capabilities.
Data Organization	Files can exist on their own or be part of collections. Collections may have sub-collections.	Files must be organized into datasets and can be further organized with hierarchical folders. Users can create collections that link a variety of datasets together in multiple ways.	We will create a diagram to help 1.5 users transition to SEAD 2.0.	Users can bulk organize files.
Public Listing of Project Spaces and Data	All Project Space names are listed in the SEAD directory, and external users can request access from admins for a particular project space. Project teams can make data public if they choose to (outside of the publication process).	Verified Project Spaces will appear in the SEAD directory. Each verified space has a public landing page and teams can make datasets within their Project Space public (outside of the publication process).	Make public and published dataset links appear on the project space page.	
Metadata Extraction and Editing	Metadata are automatically extracted from files and displayed in the interface. Users can apply custom metadata and geotag files individually or in bulk.	Metadata are extracted from files and displayed in the interface. Users can geotag files and datasets.	Improve metadata display and editing. Improve how extracted metadata is displayed.	Add ability for users to enter creator names in an order that will be preserved. Allow user to apply metadata to many files in bulk? Improve geotagging.
Deleting Data	Users can delete files and collections individually or in bulk.	Users can delete files, datasets, folders, collections, and Project Spaces.	Bulk deletion enabled.	
Social Tagging	Users can create and assign free form tags to files and collections individually or in bulk.	Users can create and assign free form tags to files and datasets individually.	Ability to bulk apply tags	Improved display of tags.
Moving Data Around	Users can move files from one collection to another.	Within a dataset, users can move files from one folder to another. Users can also move files from one dataset to another.	No change planned	No change planned
Adding Relationships between Items	Users can specify relationships between files and collections (e.g. that one file is derived from another, one collection describes another, etc.)	Users can not specify relationships between items.	Users can specify relationships between items.	
Sharing Data	Users can make subsets of their data public and can specify what kind of access these public users have.	Users can make subsets of their data public. Additionally, datasets and collections can be copied to multiple individual Project Spaces.	No change planned	No change planned
Search and Browse	Users can search and browse within an individual project space. Files and collections can be sorted by name, upload date, or category. Browsing is possible via a hierarchical listing of files and folders, tags, a map overlay, and via a collection and file listing.	Users can search and browse all of the SEAD content accessible to them as well their own Project Spaces. Browsing is possible via datasets, collections, and tags listings.	Files, datasets, and collections can be sorted by date and title. Add breadcrumb navigation.	Hierarchical display of datasets, files and folders within a project space.
Viewing Data	Users can view many common file types within the browser, without having to download the files. For image-based files, they can zoom and choose a full-screen view. For geospatial data, users can view the data overlayed on a map.	Users can view many common file types within the browser, without having to download the files. For geospatial data, users can view the data overlayed on a map.		For image-based files, user can zoom and choose a full-screen view.

Commenting	Users can comment on files and collections and can use "@" to address particular people.	Users can comment on datasets and files.	We plan to implement the "@" ability to address particular people and create comment alerts.	
Downloadin g Data	Users can download data as individual files or in bulk.	Users can download files and datasets.	Bulk downloading.	
Publishing Data	Users can submit collections for publication to a SEAD partner repository from their Project Space via a submit button. A published data list appears publicly within the Project Space.	Users can submit datasets for publication to a SEAD repository from their Project Space via the Staging Area within their Project Space. The Staging Area allows users to review their submission, make changes to the metadata, and get a matchmaker review that helps them pick the right repository and fulfill its requirements.	We will implement a public listing of all datasets published via SEAD.	
Extractor extensibility	The code that performs the extraction is a monolithic piece of code that is extremely fragile and hard to extend. Adding a new extractor requires a long time for a developer to get familiar with the platform before the extractor can be added. Since there is exactly 1 extractor per medici instance the system can not scale and will not be able to handle many uploads quickly. Each medici server has its own extractor running and can not share resources with other extractors, this requires each medici server to have resource set aside for the extractor that are not used when the extractor is idle.	Adding code to extract information from a new file format is trivial to do, a new application can be written to handle the extraction and be added to the bus. The number of extractors will scale up and down depending on the number of files uploaded. This allows the system to handle many uploaded files quickly and show the extracted information The extractors are shared with other instances requiring a smaller memory and cpu footprint for the clowder instance.		