## DRS (Digital Repository Services) Futures Survey Results Summary



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The Digital Repository Service (DRS) Futures Project created a stakeholder survey as one of the multiple outreach and engagement opportunities in the Discovery Phase of the project. The survey was open to the worldwide Harvard community. The DRS Futures Project created the survey to surface feedback and ideas from the Harvard community about the ideal digital repository. These questions were designed to be open ended and to highlight the preferences and priorities of the respondents as they relate to digital preservation lifecycle functions. The responses will be used to inform the goals and priorities for the DRS Futures requirements documents. While some of the features may be prioritized in the first development of the new system, all aspects surfaced through this survey and other stakeholder engagement opportunities will be recorded and considered for future iterations of the Harvard digital content system.

## Survey Facts at a Glance

- 181 participants began the survey
- 85 respondents completed the entire survey
- 96 partial responses
- 121 respondents listed their Harvard department
- 45 unique departments participated in the survey
- Departments with the largest number of responses include:
- Baker Library
- Faculty of Arts and Sciences
- Fine Arts Library
- FMUS - FAS Museums
- Harvard Art Museums
- Harvard College Library
- Harvard Graduate School of Design
- Harvard Law School Library
- Harvard Library
- Harvard Planning and Project Management
- Harvard University Archives
- Harvard University IT Administrative Technology Services
- Harvard University IT Technology Partner Services
- Houghton Library
- Schlesinger Library


## Deposit

Survey respondents were asked to name the services they found most functional around specific digital preservation lifecycle tasks, with encouragement to reference non-preservationfocused services. When asked about preferred options for uploading content, most respondents identified drag-and-drop systems that support a variety of organizational methods with strong search capabilities. The most identified systems were:

| Google Drive | 56 |
| :--- | :--- |
| SharePoint | 16 |
| YouTube | 14 |
| Dropbox | 14 |
| Microsoft OneDrive | 9 |
| Instagram | 9 |


| Vimeo | 7 |
| :--- | :--- |
| Flickr | 6 |
| Apple iCloud | 3 |

Table 1. Preferred Uploading Solutions

Google Drive was the most often offered example of a system that supports easy, intuitive deposit. In general, for all lifecycle events, Google was among the most popular examples listed. It is important to note that there is a substantial part of the stakeholder population who are influenced by their experiences with the various Google solutions. Awareness of what is well appreciated by stakeholders will affect the prioritization of functional requirements around the user interface usability. Google is a ubiquitous solution and may have been frequently identified by stakeholders because it is the solution most respondents are familiar with.
After compiling a list of preferred options, the respondents were asked what characteristics they most appreciated when uploading content. Surprisingly, speed was not among the top characteristics. Instead, respondents noted that clarity and ease were the top characteristics they were looking for. While this chart shows 14 distinct characteristics as defined by the survey respondents, fully $1 / 2$ of the characteristics can be grouped together as prioritizing ease of use.


Chart 1. Characteristics for Uploading Content

## Metadata

Survey participants named many real-world examples for adding and editing metadata. There is a longer than usual long tail of single examples, indicating respondents have found specific solutions helpful in metadata creating and editing. Like many other points of engagement, Google dominates in examples for metadata. It is important to consider most responses as a general expectation for the experiences and solutions users will be looking to have matched.


Chart 2. Metadata Creation and Editing Solutions

When it comes to the features that respondents are looking for in metadata creation and editing, bulk batch editing was the most often requested feature. Respondents are interested in controlled fields, language, templates and customizable fields. There is interest in having metadata import and export from the repository to other systems (both at Harvard and beyond the Harvard community).


Chart 3. Metadata Creation and Editing Features
In addition to all the mulitple requests shown in the table, individual respondents also expressed interest in:

- Version control
- See and edit structure/relationships between digital objects
- Find and Replace
- Adding metadata while the file uploads
- Ability to view digital object while editing metadata
- Ability to work across multiple items
- Preview metadata entry before publication
- Support for multilingual entry


## Managing Accounts

Respondents identified examples of strong account management services. Again, Google was the most frequently identified example for how to manage accounts. These responses reflect what people are using and what services are shaping their expectations for how account management should be organized.


Chart 4. Managing Accounts

In terms of specific features that survey respondents are looking for, most frequently requested is quick and easy account creation and editing. There is also strong interest in the abiltiy to manage accounts, roles, and access to content at a variety of levels including department, folder, etc. A number of respondents indicated they would like their account management for a reponsitory system to be integrated with other Harvard accounts - specifically they would like to lean into the idea that all systems are somewhat integrated and the work they do in one system should be pushed to others as well. Permissions being coded to links or time periods was another account management feature that respondents expressed an interest in.


Chart 5. Managing Accounts Features

## Content

The survey asked "What kind of content would you like to see the DRS Futures support in the future?" Respondents answers can be grouped into three categories:

1) Specific file formats that they would like to have added to and supported by the repository. It is worth noting that of the 8 specific file formats mentioned by respondents, the DRS currently supports 2 of the file format types (Jpeg 2000 and TIFF). This suggests that survey respondents understanding of the file types that the DRS supports is largely based on their first inquiry and respondents are not aware of later updates and expansions. This is a challenging issue to address but the ongoing community engagement plans for the new repository system will help communities stay aware of new developments.


Chart 6. File Formats Respondents Want Added to the Repository
2) Content types that contain multiple file formats that they would like to have added to and supported by the repository


Chart 7. Categories of Content to Support
3) Features for managing content that they would like to have added to and supported by the repository


## DRS User Roles

Survey respondents who currently use the DRS named the user roles they have in the system. Many respondents identified as DRS viewers with strong participation from metadata editors, content and structure editors, and depositors. Relatively few respondents use account editor and vocabulary editor roles.


Chart 9. DRS User Roles

Survey respondents would like the new repository to offer more support for robust, flexible file groupings of mixed file types and to support a variety of file structures. Respondents also are interested in short and medium term storage solutions, the ability to have rights documentation go with the content, a system for automating permissions review, and the abilty to batch update files and metadata.


Chart 10. Additional Features Requested for New Repository

## Why Respondents Don't Use the DRS

There are a number of respondents to the survey that aren't currently using the DRS. Engaging with departments and individuals that are not users helps the DRS Futures team understand some of the obstacles to adopting the current DRS and prioritize how to address those issues in the new repository system. A small fraction of respondents chose not to use the DRS because it does not currently handle the needs of their content types. For most respondents, their lack of familiarity with the DRS and the accompanying systems is the major impediment to using the DRS. This highlights an opportunity for the DRS Futures team to engage with and educate potential users about the new repository system once it is in place.


Chart 11. Reasons Respondents Don't Use the DRS

## Features to Add to the Repository

The majority of features requested by respondents to the survey were unique, specific to the needs of the responding user. Features recommended and repeatedly mentioned are featured in the table. Interoperability, granular administrative access controls, integration with access systems, and bulk editing were the most often identified survey respondents prioritized for the future repository.

| Strong interoperability with other systems (auto- <br> updates to content and metadata) | 5 |
| :--- | :--- |
| Granular access controls (granular interoperability <br> with access systems) | 4 |
| Bulk editing metadata | 4 |
| Easier upload/deposit | 3 |
| Easy format migration | 2 |


| Medium-term storage/staging area for materials <br> that are waiting to be processed. | 2 |
| :--- | :--- |
| Intuitive interface | 2 |

Table 2. Features Respondents Want Added to the Repository

## Recommendations to Simplify Repository Features

Depositing, editing, and replacing objects in the repository were the most requested features to simplify in the new repository. These were repeated often enough that the DRS Futures Team decided to address deposit needs in the focus group series to surface additional concerns from the Harvard community. In addition, there was a long tail of features that survey respondents would like to have made simpler in the new repository. This connects back to the overall feedback that an easy, intuitive system is preferred.

| Which features should be simplified? |  |
| :--- | :--- |
| Depositing, editing, and replacing objects | 16 |
| Download multiple files (bulk download) | 4 |
| Post-deposit editing of metadata and labels | 4 |
| Retrieving and sharing access to items | 3 |
| Searching within the DRS webadmin | 2 |
| Adding structure and relationships | 2 |
| Easy deposit for AV materials | 2 |
| Editing existing content in the DRS | 2 |
| Clear, modular documentation | 1 |
| Intuitive categories/labels for metadata | 1 |
| Easy User Interface | 1 |
| Granular access that reflects changing restrictions | 1 |
| Clear guidelines about DRS and, more broadly, how to guide projects so that they <br> can/might be integrated into the DRS in the future. | 1 |
| Deleting, adding, or replacing files within an object. Adding structural metadata. | 1 |
| Deposit ticket that can be used for tracking and searching | 1 |
| Clear status on the deposit | 1 |
| Automatically link to other systems | 1 |

Table 3. Features to Simplify in the Repository

## Accessibility

The DRS Futures Project team is committed to addressing accessibility in digital preservation. Digital accessibility is the ability of users with disabilities to effectively use information technology (IT) systems including websites, mobile or web-based applications, software, and hardware. Few survey respondents addressed the question of accessibility issues as related to the DRS. Out of the 19 responses to the question about accessibility issues, 12 mentioned they
had not noticed any accessibility issues and 4 conflated usability issues with accessibility. The three accessibility issues that were noted were:

- Lack of ADA-compliant player for time-based media
- Images don't appear
- Dragging challenges


Chart 12. Accessiblity Issues Encountered

## Stakeholder Engagement Preferences

Harvard community stakeholders were asked to identify their preferred methods of engagement. There was interest from the survey respondents in continued engagement via office hours, training sessions and workshops, regularly scheduled communications, and user meetings throughout the year.


Chart 13. Engagement Preferences from Respondents

In addition to expressing interest in all the listed engagement activities, survey respondents also recommended added engagement options. Respondents were interested in opportunities for:

- One-on-one consultations and appointments
- Virtual user meetings after implementation of new features
- Engineering meetings with stakeholders for developing integrated APIs with stakeholder databases of record for objects whose media are held in the DRS.
- A place to send enhancement requests, vote on them, and for DRS owners to supply feedback on the suggestions.


## Comparison of Stakeholder Input

It is helpful to consider the general responses from other stakeholder engagement opportunities in relation to the responses from the survey.

| Survey | All Harvard Open Meeting | Executive Meeting |
| :--- | :--- | :--- |
| Easy deposit/uploading | Easy to use | Improved usability |
| Interoperability with other <br> systems | Seamlessly integrated with <br> other Harvard systems | Easier System Management |


| Increasing the content <br> supported by the <br> repository | Able to support all digital <br> formats | Extending the User <br> Community |
| :--- | :--- | :--- |
| Bulk/Batch features | Scalable and flexible |  |

Table 4. Comparision of Feedback

Stakeholders consistently communicate that their top priorities for the new repository are ease of use, improved usability, strong interoperability and integration with other systems, and support for bulk and batch processing features. Ease of use and improved usability is a constant message from all stakeholders.

