

## An Archive By Any Other Name:

### The Organizational Structure of the Archive of Our Own

An archive is a repository of singular resources, created to preserve and protect those resources and usually to provide public access to them. While the traditional archive stores diaries, letters, business accounts, pictures, and a wide array of other physical objects, digital archives store the files and images on vast servers. The challenge for both has always been the organizational structure for storage and retrieval, since these sources do not have access to the collective metadata of a library filled with mass produced published works. While there has been a movement in the past several decades to standardize collection management in the world of traditional archive material, in the digital and social archives that process has barely even begun (Taylor 2018, 20-22). The Archive of Our Own (commonly known as AO3) is one of those socially formed digital archives that is developing its own collection organization and search engine for public use. The website is what the author Abigail De Kosnik describes as a *rogue archive*, one not connected to a “state memory institution” or any other physical museum, library, or archive, but one that is created by “amateurs, fans, hackers, pirates, and volunteers—in other words, by ‘rogue’ memory workers.” (Kosnik 2016, 1-2)

Fanfiction is the collective storytelling of fans of popular culture, using the idea of ‘fair use’ in copyright law to create transformative fiction based on works that fall under copyright. The parent organization of AO3 is the Organization of Transformative Works (OTW), which functions as the legal and supportive arm of the fanfiction community. Both institutions were created and are run as non-profit, volunteer staffed organizations of the writers and readers of fanfiction. The OTW states that its Mission is “as a nonprofit organization established by fans to

serve the interests of fans by providing access to and preserving the history of fanworks and fan culture in its myriad forms. We believe that fanworks are transformative and that transformative works are legitimate.” The organization goes on to give its Vision as “a future in which all fannish works are recognized as legal and transformative and are accepted as a legitimate creative activity. We are proactive and innovative in protecting and defending our work from commercial exploitation and legal challenge. We preserve our fannish economy, values, and creative expression by protecting and nurturing our fellow fans, our work, our commentary, our history, and our identity while providing the broadest possible access to fannish activity for all fans” (Organization of Transformative Works N.D.). The creation of AO3 occurred a year and a half after OTW was formed and is the main forum for the fanworks, as stated in the OTW Vision declaration. However, there are other parts to the organization, including the wiki Fanlore (started in 2008) which serves as a repository of the history and philosophy of the fan world, and the Open Doors project that works with the Special Collections department of the University of Iowa and saves non-digital fanzines and paraphernalia, as well as digital fanwork sources that are at risk of disappearing due to loss of server space, such as Yahoo’s Geocities (OTW N.D.). There are also research sections of OTW, called Fanhackers, which makes academic research on fanwork searchable, and a peer-reviewed journal published bi-annually entitled Transformative Works and Cultures. All of these groups work together under the umbrella of the OTW to preserve the cultural works of fans. In looking at the organization of the AO3 archive website, it should be understood that it does not exist alone but as part of a larger heritage organization with an inherent structure that crosses over the various sections.

AO3 is one of the most successful websites in the fanfiction community by most measures. While there are a number of websites that offer fanfiction to readers, such as fanfiction.net, Wattpad, various Tumblr accounts, and the uncounted personal blogs of writers,

AO3 is one of the fastest growing fanfiction archives, and may soon overtake fanfiction.net by holdings (Kosnik 2016). In 2014, the archive held 1 million works, but as of September 2020 it held 6.5 million works in 40,000 fandoms (Archive of Our Own 2020). It has increased its holdings by ~1 million works every year since 2014. In 2019, AO3 also became the first archive to collectively win a Hugo Award, one of the most prestigious science fiction/fantasy literature awards (Romano 2019). The award was for Best Related Work, a category that has included authors such as Ursula K. Le Guin, Neil Gaiman, Terry Pratchett, and Ben Bova (Hugo Awards 2020). The award for AO3 was the first time a Hugo went to a collective of authors. In addition, there are a number of papers and news articles written about AO3 and its impact on the fanfiction community, as well as the information organization of its archive. The title of an article written in Wired online magazine stated “Fans are Better Than Tech at Organizing Information Online,” and went on to argue that the combination of social media’s use of tags, combined with its use of authority control through human ‘tag wranglers’ was better than many business websites. The author of the article had tweeted about the structure of tagging on the fanfiction archive, and received comments from “news sites, library catalogs, commercial sales websites, customer help-desk websites, and PubMed” wishing that their professional tagging systems worked as well as the volunteer staffed AO3 system (McCulloch 2019). McCulloch states that sites with similar ‘tag wrangling’ to deal with user generated tags also had a dedicated fan base, comparing AO3 to *LibraryThing* (that combines published metadata and socially generated tags for personal library organization) and *Danbooru* (an anime imageboard). So when looking at the organizational structure of AO3, it is informative to start with its user base.

The fanfiction community started in the world of print, primarily with fiction written about the original TV show Star Trek. While folklore and mythology have long used adaptation to create new stories, the beginning for the modern idea of a ‘fandom’ began in 1967 with the

first issue of a fanzine entitled *Spockanalia* (Kosnik 2016, 35). While groups of primarily women would continue to print small numbers of ‘zines, as they were called, and share them at science fiction conventions, it was the advent of the Internet that greatly increased the number of writers of fanfiction. The cost of printing fanzines, and the difficulty of sharing them through yearly meetings or the mail kept the group fairly small until the 1990s. At that point, with the greater ease of sharing stories through email and the new listservs, the numbers of fanfiction writers quickly gained adherents, and sites that were dedicated to various TV shows became common. The X-Files, Buffy the Vampire Slayer, Star Trek, and due South became some of the fan groups that created archives dedicated to stories about characters and episodes, as well as ‘cross-overs’, which takes events, characters, and/or worlds from one popular media story and joins it to others. *LiveJournal*, *Tumblr*, and *fanfiction.net* became common places for the fanfiction community to post stories, debate writing styles and storylines, and create a shorthand for various aspects of the different fandoms and crossovers. All of this is relevant to the creation of AO3. The community created over the 20 years from the mid-1990s to 2009, when AO3 was released into beta form, already possessed a form of authority control; words used to describe certain story elements were already used in the fanfiction community, and were generally recognized by those who set up the original design of the search engine for AO3. Before looking at that structure, it is important to know the type of content that can be found on the Archive of Our Own.

The vast majority of the work found on AO3 is in the form of written stories. These stories can be as short as 100 word ‘drabbles’ as they are called, all the way up to multi-chapter, 500,000 word novels, and everything in between. There are also series of stories, written by either one author or several that are all part of the same world and characters, just like series in published works. Preserving fanfiction from other archives is one of the goals of OTW, and to achieve that AO3 absorbs fanworks when older websites are shut down, either by lost server

space or because the original creators no longer wish to maintain them. Most of these are in the form of written stories, so the collections are converted to AO3's code language (an open source GNU based code) and then can be searched as a group to maintain the community form of the original archive/collection. This means that while the look of the original collection is not maintained, the works are still available (OTW N.D.). Another way AO3 keeps content from disappearing is to allow authors to 'orphan' their works. This gives the author the ability to no longer have their name attached to the work, while the archive can continue to offer the work itself. Other than written stories, the archive also contains fanart, fanvids, and podfics. The first two are fan made art, both digital and hand drawn, and video media of varying lengths. Podfics are fanfiction stories read aloud by either the author or others, similar to audiobooks. All three of these different mediums are available, but together comprise a small fraction of the total content of searchable works on AO3.

Another growing part of the collection of the Archives of Our Own is the non-English stories. While Wattpad (another archive site that hosts fanfiction, while also having original, self-published works) has a larger collection of non-English fanworks, AO3 has been growing its diversity of stories into other languages as well (toaststats 2020). However, one facet of the search design is that it is based in English. When stories are tagged for search in a language other than English, "due to technical and human resource limitations, tags are organized in the Latin script and according to their meaning in English. When you create a tag in a language other than English, it's translated or transliterated by our volunteers and then organized the same way it would be in English." (AO3 N.D.) The majority of volunteers are English speakers, and the servers are located in America, which still dictates the overall design of the archive when it comes to non-English languages. There was a large influx of Chinese stories in 2020, as well as a number of other languages represented, but the overall structure of the information is still in

English (toastystats 2020). The continued growth of the archive may depend, in part, on the greater outreach to non-English speakers. The requests for volunteers on the news blogs of AO3 are often asking for translators for specific languages where there is a need. Most of this need is for translation of coding, support, and search aspects as more stories are archived that are in languages other than English. Currently, there are stories in 40 languages supported by the Archive (including in such oddities as Latin and Esperanto). In 2019, AO3 changed from English as the default when uploading a story, to a more inclusive ‘Choose a language’ option with a drop-down menu (AO3 2019).

The decision was made at the start of AO3 to limit upload authority to members, mainly because of server limitations. Technically, AO3 is still in beta; while anyone can access the site and search for stories to read, only members are allowed to upload stories and some of the content is only accessible to members. However, membership is through open invitation, meaning that once someone requests an invitation, they will be put into the queue to receive one, at which point they will be able to open an account (as of late November 2020, AO3 has 3 million members). Invitations are first-come, first-serve, and the amount of time it takes to get one depends on the number currently in the queue (AO3 N.D.). The reason for doing this is to control the input into the system and its servers in order to continue operating smoothly. Most of the story content is open to any visitor to the site, with some limited content restricted to members only. The largest difference for the member versus the non-member is the access to certain functions of search such as bookmarking stories, subscribing to author updates, a history function, and a preferences function for finding works within the archive. Members can also store up to 20 ‘favorite’ tags to work as shortcuts to the search function. Non-members cannot use any of these ways to speed up search from one visit to the next, but they can use their browser to bookmark web pages to access previously searched stories and lists of works.

As stated before, there was already an established form of authority control for fanfiction before AO3 was designed. The fanfiction community had created shorthand terms for discussing story development and characters across fandoms in the early years of the digital revolution. The use of the tag system for identifying and searching for content has been a common feature of social websites used by fanfiction authors to post their works. Taken together, these are reasons AO3's designers would have turned to the use of tags to organize and search the archives. Similar websites like *LibraryThing* deal mostly with published works, where metadata created by vendors, OCLC, and the Library of Congress can be downloaded for use in cataloging, while tags become an additional search feature. For an archive like AO3, which contains no published works, and expressly forbids any monetary gain from works posted due to copyright law and as a non-profit organization, there is no metadata to import for bibliographic controls. Many other sites employ tags to make the vast amounts of data searchable, social sites such as Twitter, YouTube, and Instagram. One of the main problems for those posting a work and tagging it for search on such social sites comes when trying to decide what words or phrases to use for the tag (McCulloch 2019). These problems, solved for published works by the more rigid control of OCLC and the Library of Congress with access points, begins with having to include every possible tag formation to avoid not being found in a search. One example is having to include the singular and plural of the same word. This makes for long lists of tags being attached to works, often based on emotion, viewpoint, and other singular, rather than general, reasons. It also generates endless tag lists a creator must use when deciding which tags should be attached to insure searchability (McCulloch 2019). Without authority controls to create single access points for a variety of similar tags, this problem continuously occurs across platforms using social tagging.

AO3 stands out as an archive using social tagging in a fairly unique way, perhaps because it is a form of library/archive for a close-knit community, rather than a purely social website such as Twitter. Tagging is considered a form of indexing; the word was coined by the bookmarking web service Delicious in 2003 (Rafferty 2018). The use of tags to categorize the vast amounts of information on websites can be done by both the users and/or creators. Those done only by the creators of content are described as a narrow folksonomy by Thomas Vander Wal, because they are only applied once to an item. A broad folksonomy is described as one where anyone can assign a tag to an item, which creates a wide variety of tags for any one item (Rafferty 2018). The use of tags on AO3 is a variation on these two forms. Because of the community feedback element in fanfiction writing, a taxonomy is created that is recognized by regular users, both readers and creators. While the creators of the fanfiction works are the ones who tag their stories and other works for search, which fits the description of a narrow folksonomy, those same creators respond to feedback and new terminology in the community to create their tags, which is more similar to the idea of a broad folksonomy as described by Vander Wal. There is also a way for members of AO3 to add tags to a work, though indirectly, through the bookmark feature. When creating a public bookmark for a work, the member can attach tags to that bookmark and choose to make the bookmark public. At that point, any reader can see the bookmark for the specific work when they go to its page, and then view the tags created by readers by clicking on the bookmarks link on the story page.

Moderating this feedback loop between creators and readers is a control group made up of people from both areas, which AO3 calls 'Tag Wranglers.' These volunteers are trained by the Archive of Our Own to create some authority control over the creator generated tags. AO3 is careful to indicate that tag choices are completely in the authors' control; only the creator of a story is allowed to create a tag. However, the tag wranglers will then provide a structure for tags

through assigning them to a parent or child tag group. This allows those searching for stories to access them through a variety of tag forms, including synonyms, plurals, and homonyms. The use of a parent and child hierarchy of tags as a form of authority control allows the AO3 system to provide complete freedom for creators to generate tags, while giving the reader/user the choice to filter their search request, creating the ability to narrow or widen their field of search.

On AO3's homepage is a link to the 'Wrangling Guidelines' for creators to read through. While AO3 allows complete freedom for the creators of works to tag in any way they wish, there is the general need for those posting works to have their creations read by those visiting the archive. Since the best way to get stories read is to provide clear tagging for search, the guidelines are posted to provide transparency in the ways that tag wranglers sort the various created tags into the search organization. AO3 is careful to emphasize that only creators can create and edit their tags. The purpose of tag wrangling is to provide better search, not to limit the creation of tags, which is considered part of the act of story creation. In the guidelines, which is provided for any visitor to the website, the purpose is described as:

“intended to help tag wranglers remain consistent as they go about the business of wrangling tags by providing a set of formatting guidelines. The idea is to standardize canonical tags and synonym relationships as much as possible, while keeping in mind that different fandoms (and people) organize information about their fandoms differently. The aim, then, is not a perfect tagging scheme, but clarity, differentiation between similar tags with different concepts, prevention of single tags with different meanings, and ease of use for as many people as possible.

It is important to keep in mind that these guidelines are specifically for the wranglers to use when connecting tags together. They are in no way meant to recommend or promote any particular tags, and while you are welcome to follow these guidelines when tagging,

you are encouraged to use whatever form of tags you prefer. *You as a creator or bookmarker can tag the works you create or bookmark with whatever tags you think fit best—wranglers can't change the tags you choose for your works and bookmarks!*

These guidelines are an in-progress affair, subject to change (AO3 N.D.).”

In addition to this set of guidelines, which has eight sections, including an Introduction, First Principles, and one section each for different types of tagging categories, there are also numerous independent blogs and AO3 posts that offer advice on how to effectively tag stories posted on AO3. Some of the blogs are written by wranglers themselves, who want to offer tag advice to create better searchability. Others are by the creators of archive content, giving advice on how they tag stories to help new creators do the same (sometimes the creators *are* tag wranglers). There is even at least one creator who prefaced her advice in story form, including descriptions of the *Frankentag*, the *Ambiguous* tag, and the wrongly *Ordered* tag (ErinPtah 2013).

Some tags are required by the archive for all stories and other media to have, others are suggestions for creators to use. When creating and entering tags for a story, an author has the option to pick from tags that are commonly used in any particular field with an autosuggestion drop-down menu, but they are not required to use any of the previous choices. The tags that are required for each work are ***Work Title***, ***Fandom***, ***Rating***, and ***Archive Warning***. The author identity will automatically be attached, but this will be whatever name chosen by the creator, not a legal name (most authors use what are called ‘pseuds’, a pseudonym that is used for the fanfiction community; an author may or may not ever be known by a legal name, but can have several pseudonyms, which can be linked together). ***Fandom*** is the popular media that the story is based on and can be one or many, as well as fall into various genres, such as *Star Trek: The Original Series* (shorthand *TOS*) on TV, or the *Star Trek: TOS* movies, or both, or *Star Trek: All Media* (and any other combination; crossovers, as they are called, are common in fanfiction, with

some crossovers including 5-10 fandoms). When searching for something with multiple fandoms, the story will be listed in any category to which it applies by searching any of the main categories (for instance, a *Star Trek:TOS* crossover with *Star Wars: The Next Generation* could be searched under either heading).

The fandom tag *Star Trek: All Media* is known as a **Metatag** in AO3. Metatags are created by Tag Wranglers to make it easier to group tags that are either not obviously related or are ambiguous in their meaning under one heading to streamline search (AO3 N.D.). The Tag Wranglers will create these **Metatags**, and then group the corresponding **Subtags** with them for

	<b>METATAG: Yoko</b>	the purpose of search.
<b>METATAG: Cinderella – All Media Types</b>	SUBTAG: Yoko Littner	If a creator uses one of
SUBTAG: Cinderella (1950)	SUBTAG: Yoko Ono	the <b>Subtags</b> in their tag
SUBTAG: Ever After (1998)	SUBTAG: Hashiba Yoko	listing, it will
	SUBTAG: Yoko Belnades	automatically be

searchable by the **Metatag** in the search engine results. This allows for greater ease of searching, especially when a fandom, such as the Star Trek universe, crosses multiple genres and instances in popular culture. In practice, this works like the FRBR model of metadata in classifying multiple Expressions as a singular Work.

For the **Rating** tag, a creator may choose ‘Not Rated’ if they do not wish to choose a rating, but that tag may be filtered with the ‘Mature’ and ‘Explicit’ rating for search purposes. Like the **Rating** tag, a creator may have ‘Choose Not To Use Archive Warnings’ as their **Archive Warning** tag if they do not wish to ‘spoil’ the story. The AO3 archive considers this tag to warn the reader that they proceed at their own risk for reading the story tagged this way. Since AO3 does not have any restrictions to the types of stories that can be posted, this is a serious choice that the creator of a story should consider. Other **Archive Warning** tag examples are Graphic

Depictions of Violence, Rape/Non-Con, and Underage, and there is a wide range of other warnings possible. Often, creators will choose a number of other ‘trigger’ warnings, since there can be direct comments to the creator from those readers who felt they were misled or not informed by the tags attached to the stories.

There are some additional Tag categories that are offered to someone posting a story. These do not have to be used, but they are suggestions to make the search function easier for those readers looking for particular content. The categories in this group are *Characters* and *Relationships*, and the variety within these are great. There are common characters and pairings for each fandom, as well as unusual ones. There are also common crossover fandoms that have their own relationships. When searching for *Relationships*, there are commonly accepted taxonomies for describing them that are used by AO3 and across the fanfiction community. A slash relationship is one that is specifically referring to a same-sex couple; the slash [/] is used to indicate a sexual relationship of any couple or group, but the word *slash* has come to mean specifically a same-sex relationship. The ampersand character [&] is used to indicate a platonic relationship. In the *FAQ* on Tags, one of the common questions is about how to tag a queer-platonic relationship, and the response has been suggestions by tag wranglers on how to indicate that designation using existing tags or the *Story Summary*, but there is an ongoing discussion about creating a shorthand way to separate out that type of relationship in tag form.

Attached to each story when it is searched is a small, four-square box to indicate the main facets of the warning and relationship tags. That box has four colored squares that give the commonly searched indicators about a story. The first box shows the Content Rating, the second shows Relationships/pairings/orientation, the third box give Content Warnings included in the tags (or if there were none given), and the final box indicates whether the work is completed or still in progress. Each box has a set of colors and symbols to give more information relevant to

its information. Not all boxes will apply to all stories, and if there is none for a box, it is greyed out. Some examples for stories are (descriptions are left to right):



Mature  
Same-sex, male  
Warnings  
Completed



Teen & Up  
Gen, no romantic pairing  
No warnings needed  
Completed



General Audiences  
Other Relationships  
No warnings needed  
Completed



Mature  
F/M: female, male pairing  
Choose not to tag warning  
Not Completed

***Additional Tags*** is the area where there is complete freedom for the creator to place tags of any sort. Within ***Additional Tags***, canon tags are ones that are commonly used; these are the tags that serve as access points for similar tags in search. When clicking on a canon tag, any tag that has been attached to that tag by the Wranglers will be filtered into a search list. ***Additional Tags*** can be extremely informative of story content, or conversely, can be run-on creator commentary about the story. When choosing these tags for a story, a creator will get a drop-down suggestion list for commonly used tags, both canon tags and those attached to a canon tag, but there is no push from AO3 to use them. Generally, most authors will want their works to be easy to find, but it is not uncommon for Freeform Tags to be attached to a story, depending on the creator's own preferences. There are also sometimes instructions attached in tag form, such as *Do Not Copy To Another Site* or a similar statement. These are clearly not meant to be a searchable tag, but instead to highlight a creator's preference or opinion, instead of placing it where it might be missed such as in the ***Story Summary*** section. One of the limitations for these run-on commentaries is that a single tag can only be 100 characters, so some creators will leave out any spaces, creating a tag with an emotional connotation, such as

*I know there's already too much destiel fanfic I'm sorry*, which counts as a tag but can only be considered creator commentary (Blue 2020). Another example of a commentary set of tags is: **canon compliant up until 15x18**, **because screw 15x19**, **Temporary Character Death**, **Angst with a Happy Ending**, **Post-Episode: s15e20 Carry On**, *Kinda*, *mostly just erasing it entirely*, *because absolutely not*, **Post-Canon**, **Hurt/Comfort** (AO3 D.G.).

Even though a creator can include these tag commentaries, which are clearly a style choice, the AO3 site will still allow filtering for those tags that have been wrangled to allow it. In the above list of tags, the ones that are in bold are tags that have been assigned to episode canon tags and other canon tags that allow filtering. On any page where they appear, they are collocated to the set of stories with similar tags, even though the creator typed them in an order that combined with non-canon tags to create the commentary. This is a common way for authors to create tag commentary while still maintaining searchability. One thing to point out here is how quickly tag wrangling can respond to tags becoming common and therefore provide a filtered search. The set of tags above refer to Supernatural episodes 15x18, 15x19, and 15x20. The story was started after episode 15x18, which aired on Nov. 5, 2020, while the last episode (also the last episode of the series) aired on Nov. 19, 2020. The ability to create filtered search for episode tags was immediate, since those episodes would be used to create stories that would be uploaded soon after the episode aired on TV. This fanfiction story attached to the tags referenced above was started one day after the airing of episode 15x18. The ability to create search filtering within hours or days of stories being uploaded and tagged is a facet of social tagging that cannot be replicated with any institutional organizational structure because of the slow response of long-established systems. In this instance, it is in part because of the size of the Supernatural fandom, which is very active and has a long history with a set taxonomy that is well known to its users. However, it is also a unique aspect of the fanfiction community and the skill and knowledge of

the tag wranglers, who were able to anticipate the intense creation of stories in one of the larger fandoms at the end of a fifteen year run of Supernatural, and likely had tag sets ready to create a filtered search for them. One of the benefits of social tagging is its ability to react quickly to changes because of crowd-sourcing. AO3's addition of Tag Wranglers keeps this agility from becoming an uncontrolled liability.

The overall effect of all these rules for Tag Wrangling is that the dynamic ability to create tags socially is still available to the creators, and to the fanfiction community at large. This allows the quick adaptability and bottom-up creation of social tagging that responds to changes in the internet data landscape. The use of Canon Tags and Metatags, as well as the Tag Wranglers knowledge of the folksonomy of the fanfiction community, also allows for the benefits of authority control and access points that an established system such as Library of Congress Subject Headings and the use of the Dewey Decimal System and the LOC gives to published works. For this particular community of creators and readers, it does seem to be the best of both worlds.

After looking at the ways that the Archive of Our Own uses tag creation and tag wrangling to create an organizational structure for the stories, there is also the element of how that structure is implemented on the website for those unfamiliar with the fanfiction community. For someone who is not a member of AO3, how would they be able to search the website if they were unaware of the fanfiction folksonomy? Luckily for that person, the first point of entry for search is the popular media names that most people are very familiar with in general. The home page for the general user of AO3 gives the option for search under the label 'Find your favorites,' and also includes a description of the types of work that can be found on the site, as well as what the holdings are in numbers, and news excerpts from the site. It is an uncomplicated front page that makes it easy to get immediately to the search function.

## Find your favorites

---

- » All Fandoms
- » Books & Literature
- » Celebrities & Real People
- » Music & Bands
- » Theater
- » Video Games
- » Anime & Manga
- » Cartoons & Comics & Graphic Novels
- » Movies
- » Other Media
- » TV Shows
- » Uncategorized Fandoms

After clicking on the main category of media in which the user is interested, the search engine takes one to an expansive list of fandoms in that genre. At this point, it would be a problem if the user had limited knowledge of popular culture. Because that is usually not the case with general users of the

internet, we can assume that a user will have knowledge of a TV show they might wish to look at stories about.

### Fandoms > TV Shows

You can search this page by pressing `ctrl F` / `cmd F` and typing in what you are looking for.



The titles are listed alphabetically, in English, by the first word. One aspect that will only be apparent after a failed search is that articles are not considered first words, but as that is not uncommon in most library and archive search engines, it is not a barrier to search. With over 40,000 fandoms represented, these lists are long, so a user will have to scroll through a bit to find their title, but it is not difficult if the name is known, which is easier with the popular culture names of TV shows. For the purposes of analysis this paper will look at the Supernatural fandom since it is one of the largest on the archive, which means that narrowing down a search takes a bit more work than for the smaller fandoms. The number of stories in Supernatural is listed as 226,780 works, displayed on 5000 pages, which would be a daunting task to look through for anyone unfamiliar with the website (257 stories were posted in the last 24 hours of Nov. 27, 2020). At this point, there is an easy way to narrow the search using the filtering option, which is

located in a side widget and has a number of options that can be used singularly or in any combination to narrow a search. All tags associated with each story are also attached to every story listing, so one could start by just using those, but that is a very uncontrolled search for someone new to the site.

The widget below is one that is found on any page that is a list of stories from a fandom. (Here the widget is side by side,

but on the page it is one long set.) The

first set of tags that can be chosen is in

the drop-down menu that includes the

Date Updated, which is the default

option, and has choices for the Author,

Title, Date Posted, Word Count, Hits,

Kudos, Comments, or Bookmarks. The

last four options correspond to issues of popularity of the story with

the website's readers, which would correspond to a review function.

After picking any of these options, a searcher can hit Sort and

Filter, and the stories will be narrowed by the chosen criteria. Each

set of tags can be independently chosen, and aggregated to combine into a new search parameter.

In addition to the tags listed, a searcher can also add any tag they choose, but for a new user of

the website that is a difficult choice to achieve a usable search, so most would probably use the

ones offered. All of the tags listed in the search widget are comprised of the canon tags that fall

under each category, and all the wrangled tags that have been assigned to that group will be

searched with that option.

The image shows a screenshot of a search widget interface. It is divided into two main sections: 'Sort and Filter' and 'Exclude'.  
The 'Sort and Filter' section has a 'Sort by' dropdown menu currently set to 'Date Updated'. Below it is an 'Include' section with a list of expandable categories: Ratings, Warnings, Categories, Fandoms, Characters, Relationships, and Additional Tags. There is also a text input field for 'Other tags to include'.  
The 'Exclude' section has a similar list of expandable categories: Ratings, Warnings, Categories, Fandoms, Characters, Relationships, and Additional Tags. Below this is a text input field for 'Other tags to exclude'.  
At the bottom of the widget, there is a 'More Options' section with expandable categories: Crossovers, Completion Status, Word Count, and Date Updated. Below this is a 'Search within results' text input field and a 'Language' dropdown menu. A 'Sort and Filter' button is located at the very bottom of the widget.

After the general *Ratings*, *Warnings*, and *Relationship Categories* (these are not people, but gender identifications, such as M/M, Gen, F/M, etc), one can search specific names of characters included in the stories, relationships between characters, crossover fandoms, and whether to include or exclude any of those categories (all of the top choices are listed in drop down menus, specific to each fandom and/or canon tag search). In the *More Options* section of the widget there are the choices to include/exclude any crossovers, or whether one wants only complete stories, work-in-progress stories (WIPs), or all stories. The final search elements are how long or short the stories are, and when the story was updated (in the last week, month etc). Using parts of all of these search elements, one could quickly narrow down the types of stories one wanted to look through. Once a list is more manageable, there is the story listing itself to look at for options. On each listing, there is a great deal of information for choosing a story. This is similar to the information in a MARC list, designed for human reading such as a public library provides in its search catalog. In the story section below, which is a typical listing within a fandom search, all the elements that can be narrowed down by the search widget are shown, with the addition of the *Story Summary* that most authors include. The *Story Summary* is a section that can be however long the author chooses, and is in no way searchable like the tags; it allows for a more text based description of the story contents than the tags. Some creators choose to leave out any summary, and only use the tags to describe content, but much more often there is a summary to describe the story more directly than tags alone can achieve. A *Story Summary* can take any form a creator wishes, since it is not bound by the guidelines for tag creation, and can be similar to a book jacket description or be very idiosyncratic.



oh god, kill me now by TolkienGirl

28 Nov 2020



Supernatural

No Archive Warnings Apply, Dean Winchester & Sam Winchester, John Winchester & Sam Winchester, Jessica Moore/Sam Winchester, John Winchester/Mary Winchester, Sam Winchester, Dean Winchester, Episode: s01e18 Something Wicked, Episode Tag, Foreshadowing, Sam questions the Revenge Mission for a moment, in light of what he's learned, Two Brothers and a Car, Conversations in the Impala (Supernatural)

SAM: I wish I could have that kind of innocence.

DEAN: If it means anything, sometimes I wish you could, too.

Part 18 of Vintage Winchesters: Season 1 Tags

Language: English Words: 500 Chapters: 1/1 Kudos: 1 Hits: 5

In the selection above, one can find the four-square box that indicates the basics of *Ratings* and *Warnings*, which a user can click on for explanations of the symbols. Then there is the Title tag, which will take one directly to the story, and the Author tag, linking to the author's page, which includes *Works*, *Series*, *Collections*, and *Bookmarks* by that author. Under that is the main Fandom tag, and then the tags that were created when the story was posted or updated (these tags can be changed by the creator of the story at any time). All of these tags are links, and clicking on a canon-connected tag will automatically filter the list of works to those connected to the tag within that fandom. Tags that are not cannon-connected tags will take one to a separate Tag Page, which will list any story (regardless of fandom) that has that tag, and let the user know that the tag cannot be filtered for search within a fandom. Below all of the tags is the *Story Summary*, and in this story, the *Series* it belongs to, which can be reached with that series tag. At the bottom are the statistics for the story. The last two statistics are *Kudos* and *Hits*. These two are search filters that generally give a popularity indication. *Kudos* can be left by a member or visitor without a comment, indicating that the story was enjoyed, and *Hits* are the number of people who clicked on the story. *Hits* compared to *Kudos* gives some indication of the general popularity on the site as well as how well people liked it once they read the story (*Comments* and *Bookmarks* can also be in this section, which this story has not been listed long enough to acquire). This box of information displays at the top of any individual works page on the archive.

This means that all tag links are available on all webpages that include story listings, making fast searching for content streamlined across the platform.

One other element of the Archive is the ability to download content for offline reading. AO3 has made this an element of the site from the beginning, and has added functionality over the years to accommodate more device needs. Currently there are five format options for downloading content, HTML, PDF, EPUB, MOBI, and AZW3 (the last two are specific to Kindle readers). AO3 does not allow creators to block downloads, though they can limit their works to just members (this is not common). AO3 does take complaints about plagiarism of fanworks, but adaptation is considered fair use, especially since that is the basis for the entire community.

Advanced searches are also possible on AO3, and these are mainly limited to the skill of the user, and the familiarity with the fandom community being searched. While the search choices in the Sort and Filter widget are general enough that they can be used across fandoms, each group has certain taxonomy choices that are particular to them. When doing an advanced search using tags, just randomly typing in words such as in a keyword search would be difficult. This is similar to a more focused subject search using the LCSH listings. There are some general terms, but getting the correct listing at random is unlikely. However, for those who want to find very specific items, using the more advanced options for search gives almost infinite ways to narrow down the possibilities. There are also advice blogs available for those who wish to use shortcuts and code workarounds to search within very specific parameters; these are options for the heavy and well-informed user/member.

At the top of the home page, there is a set of drop-down menu options, with two of them for search, and one that includes the *FAQ* page for AO3. There is a *Browse* Menu that includes *Works*, *Bookmarks*, *Tags*, and *Collections*. The *Works* and *Bookmarks* links give the latest

posts of each group to the Archive at large, so both are fairly random. The **Tag** option gives a tag cloud of the most common tags used for all fandoms, so again, a fairly random option. The **Collections** choice gives all the works grouped by collection, including those transferred to the Archive for preservation, but also those produced by creators as sets, sometimes for writing challenges or for other grouping reasons. This last **Browse** option is the most useful, since this option would otherwise have to be known or found through a general browsing of tags. The **Search** Menu gives similar options, but this link removes **Collections** and has **People** instead. In each of these options, there is a page where one can type in individual entries for author, title, tags, bookmarks, dates, language, and all of the choices offered in the filtered search widget. Here though, there are no offerings for individual fandoms, just blank entry spaces. Again, this is for a user who is very familiar with the community they wish to search, and wants to input the information and go directly to the fandom/grouping. It is likely that this is a less used area of the search engine. Those who have the skill to navigate this type of search are likely to be members of the Archive, and would use the Bookmarking and stored Favorite Tags options that are open for members to use from visit to visit for quick navigation. However, for someone who has a problem with being a member, this option for direct searching is available.

Direct searching does use Boolean search parameters, so there is also an instruction page for how to enter tags in open fields across the site. Some of these parameters are specific to the Archive, so there are instructions for how to search in various ways within the **FAQ** page. In fact, the **FAQ** page is fairly exhaustive, and is listed under the drop-down **About** Menu. In the **FAQ** section, there are 25 sections, each with multiple subheadings. Some of the sections have to do with Accounts, Invitations, and other things that are about the site itself and instructions on uploading content. However, there are also approximately ten sections dealing with search elements such as Tagging and how they are used. In total, between all the subsections, there are

over 100 questions on tagging and search elements in the *FAQ* section (and this does not include the *Tag Wrangling Guidelines*, which is almost as long). While most people would not be looking for that much granularity in their search, all of the questions are ones considered necessary to have quickly available, so they are ones that have come up often. While certainly not as long as the instructions for using the LOC subject headings, or even the DDS four volumes, it is still a fairly good indication of the strength of the search organization structure used by AO3.

Though the Archive of Our Own is excellent in providing both general search and granular search, and has created an organizational approach that is viewed as one of the best of its kind, there are a number of questions about the future. AO3 has remained in ‘beta’ format since its inception, and there does not seem to be an end date at this time. Most of this is just to handle the volume of server needs with a volunteer staff. Contract work is hired for some of the technical needs of moving to new servers, so it is possible that this contract work could be adapted to supply greater user needs. However, the uniqueness of the job of tag wrangler may require the specialized knowledge of community users, which could be difficult to scale up without the beta format control. Another problem will likely be the inclusion of more language diversity, which will require greater volunteer needs for translation work. Whether or not the site can adapt to non-Latin based alphabets for search may be a determining factor in growth in this area. These are all questions that other, established information organizations are struggling with, so AO3 is in good company.

There has been much written about the concept of the ‘black hole’ of the internet, that posits the idea that in the early years of the information age much is being lost because of a lack of information repositories and organizations capable and motivated enough to store and catalog all of it. Digital archives to save that information began to form as early as the 1980s, such as the

Guttenberg Project and the Internet Archive. Academic institutions have also developed digital storage and cataloging to keep track of resources. However, it is estimated that there will be 44 zettabytes of data created, exchanged, and stored over the internet in 2020, which is 1,099,511,627,776 gigabytes (NodeGraph 2020). There is simply no way at this time that a significant portion of that information is being saved, much less organized for human search. While this seems like a unfathomable number, there was also a lot of data in the form of newly printed books lost when the printing press was first invented, and it took time for libraries and other repositories to begin a systematic and organized collection of materials. The rise of social tagging has been pointed to as a way to work toward a collective form of information organization on the internet (Rafferty 2018). There are both benefits and drawbacks to tagging. The vast amount of generated works makes the use of subject headings, cataloging designs and various other methods invented in the last part of the 19<sup>th</sup> century unable to adapt quickly enough to organize all the production of information. The use of a Linked Web has potential, but it is not yet in use, and the amount of work involved in its creation is daunting. In a small way, looking at how an archive such as AO3 organizes its completely born-digital production can be instructive to how a linked web might be able to function and be sustained.

The structure of AO3 is the product of a completely volunteer staff, though one that is highly motivated. The staff has learned a new folksonomy, created for and by a community of users. They have managed to keep the organizational design growing and developing over 13 years and created an effective search tool to access their resources. In asking about the use of AI in tag wrangling, McCulloch in Wired magazine found one AO3 wrangler who felt that only humans could do the work, while another believed that there could be possibilities in a partnership between humans and AI for cataloging tags (McCulloch 2019). An open-sourced project for a tag recommender system has been designed and researched, called TagRec, which

would help evaluate combining tag recommendations with user generated tags in order to bring some structure to crowd-sourced tags (Dominik Kowald 2017). This is the type of work that the human ‘Tag Wranglers’ of the Archive of Our Own are doing today.

Whether or not the future of information organization is with social tagging, it has certainly worked to make an effective search and cataloging structure for the fanfiction community today. The limitations of having an all-volunteer staff would make assigning subject headings such as used by the Library of Congress much too slow and time consuming. Using only user designed tags would make search of an archive for specific stories unworkable. By combining the advantages of both techniques in a controlled community, an effective form of social tagging has become a success for this archive. What remains to be seen is if that information can continue to have such a high quality of organization into the future. The same challenges of adapting to larger and more diverse holdings and user bases that many traditional libraries and archives face will also effect AO3 as it grows. There is a solid structure of support behind this new form of archive, and perhaps it can help shape new ways to adapt to the changing needs of digital organization and a more multi-cultural approach to cataloging. For now, the organization allows for a smooth user interface and search experience that makes finding its holdings no more difficult than any library one would enter, and in some unique ways, superior.

## References

- AO3. 2019. *AO3 news-Language options when posting and filtering works*. Nov 19. Accessed Nov 30, 2020. [https://archiveofourown.org/admin\\_posts/14572](https://archiveofourown.org/admin_posts/14572).
- . N.D. *FAQ-Invitations*. Accessed Nov 25, 2020. [https://archiveofourown.org/faq/invitations?language\\_id=en#howtogetinvite](https://archiveofourown.org/faq/invitations?language_id=en#howtogetinvite).
- . N.D. *Tag FAQs*. Accessed Nov 26, 2020. [https://archiveofourown.org/faq/tags?language\\_id=en#languagescript](https://archiveofourown.org/faq/tags?language_id=en#languagescript).
- . N.D. *Tag Wrangling Guidelines*. Accessed Nov 27, 2020. [https://archiveofourown.org/wrangling\\_guidelines/2](https://archiveofourown.org/wrangling_guidelines/2).
- . D.G. *Works in Supernatural*. Accessed Nov 27, 2020. <https://archiveofourown.org/tags/Supernatural/works?page=2>.
- Archive of Our Own. 2020. *admin posts*. Sept 5. Accessed Nov 25, 2020. [https://archiveofourown.org/admin\\_posts/17068](https://archiveofourown.org/admin_posts/17068).
- Blue, Topsy. 2020. *Red Light*. Nov 27. Accessed Nov 28, 2020. <https://archiveofourown.org/works/23044537/chapters/55112032>.
- Dominik Kowald, Simone Kopeinik, and Elisabeth Lex. 2017. "The TagRec Framework as a Toolkit for the Development of Tag-Based Recommender Systems." *Adjunct Publication of the 25th Conference on User Modeling, Adaptation and Personalization*. New York, NY: Association for Computing Machinery. 23-28. doi:<https://doi.org/10.1145/3099023.3099069>.
- ErinPtah. 2013. *A User's Guide to AO3 Tagging*. July 11. Accessed Nov 27, 2020. [https://archiveofourown.org/works/839223?view\\_full\\_work=true](https://archiveofourown.org/works/839223?view_full_work=true).
- Hugo Awards. 2020. "Hugo Awards By Year." *The Hugo Awards*. Accessed Nov 30, 2020. <http://www.thehugoawards.org/hugo-history/>.
- Kosnik, Abigail De. 2016. *Rogue Archives*. Cambridge, MA: MIT Press.
- McCulloch, Gretchen. 2019. *Fans Are Better Than Tech at Organizing Online Information*. July 14. Accessed Nov 25, 2020. <https://www.wired.com/story/archive-of-our-own-fans-better-than-tech-organizing-information/>.
- NodeGraph. 2020. *How Much Data is on the Internet?* Accessed Nov 27, 2020. <https://www.nodegraph.se/how-much-data-is-on-the-internet/>.
- Organization of Transformative Works. N.D. *What We Believe*. Accessed Nov 25, 2020. [https://www.transformativeworks.org/what\\_we\\_believe/](https://www.transformativeworks.org/what_we_believe/).
- OTW. N.D. *Open Doors*. Accessed Nov 25, 2020. <https://www.transformativeworks.org/opendoors/>.
- . N.D. *Open Doors FAQ*. Accessed Nov 25, 2020. <https://opendoors.transformativeworks.org/faq/>.
- Rafferty, Pauline M. 2018. "Tagging." *Knowledge Organization vo45 no6* 500-516. Accessed 2020.

Romano, Aja. 2019. *The Archive of Our Own just won a Hugo*. Aug 19. Accessed Nov 25, 2020.  
<https://www.vox.com/2019/4/11/18292419/archive-of-our-own-wins-hugo-award-best-related-work>.

Taylor, Daniel N. Joudrey and Arlene G. 2018. *The Organization of Information 4th ed*. Santa Barbara, CA: Libraries Unlimited.

toastystats. 2020. *[Fandom Stats] AO3 in 2020*. Nov 01. Accessed Nov 26, 2020.  
<https://archiveofourown.org/works/27315784>.