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Searching the Archive of Our Own: The Usefulness of the Tagging Structure

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SEARCHING THE ARCHIVE OF OUR OWN:
THE USEFULNESS OF THE TAGGING STRUCTURE

by

Kelly L. Dalton

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ABSTRACT
SEARCHING THE ARCHIVE OF OUR OWN: THE USEFULNESS OF
THE TAGGING STRUCTURE

by

Kelly L. Dalton

The University of Wisconsin-Milwaukee, 2012

Under the Supervision of Professor Hur-Li Lee

To explore users' opinions about the search methods available on an online fanfiction repository, The Archive of Our Own, users of the Archive are offered an online survey with both quantitative and qualitative questions about various methods of searching the Archive. While quantitative responses are converted into percentages and cross-tabulated to compare responses from different groups within the survey-takers, qualitative questions are hand-coded for emergent themes. Overall the respondents hold positive opinions about the various Archive search methods and about Archive searching as a whole although they have many suggestions for improvements, including adding other search options, adding a weighting option for the tags to show main characters and pairings, and doing more upfront education so that people uploading fanfiction are tagging it correctly. The results, not generalizable due to the exploratory nature of the study, point to a conclusion that for these users the Archive's particular hybrid of freetagging and some vocabulary control and hierarchy works fairly well. Several suggestions are made for future research in the area.

This work is dedicated to my husband
Peter Cashwell,
who is the most encouraging, the most supportive,
and simply the best.

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Introduction

The phenomenon of social tagging is a response to the information overload of the Internet. The vast quantity of information available online calls for some sort of subject tagging to make it truly useful, but far outstrips the capabilities of information professionals to keep up. This situation has led to laypersons participating in social tagging, also known as “folksonomy” or the “crowdsourcing” of subject tags. “Social tagging” itself is defined by Goh et al. (2009) as systems which let users annotate sites they find useful by assigning keywords or tags. They note that tags are “flat,” meaning that they do not fit into a premade hierarchical structure, and explain that they are also known as “folksonomies,” a portmanteau word for “folk taxonomies,” meant to emphasize that they are created by lay users rather than information professionals (Goh et al. 2009, 568-69). Shiri (2009) also defines social tagging by listing some of what he considers near-synonyms for it: these include collaborative tagging, folksonomy and mob indexing. For the purposes of this paper the researcher simply uses “social tagging.”

However, there is as of yet no consensus on the overall usefulness of social tagging, partly because the websites which use it vary so widely in their content and their intended audience. They range from enormous mass-appeal sites such as Flickr or Delicious, which have to perform adequately for a large and diverse population of users, to niche sites, which have a small group of users who tend to have a homogenous knowledge base and vocabulary. Even within small niche sites, it is unclear how well social tagging in general works, either for the tagger or for the user of the site who tries to use assigned tags to browse and search. There is a tension between “freedom of tagging”

for the tag creator and prevention of the kind of “tag fog” and general chaos that makes it hard for the site user to get any value from the site.

The current study looks at an online repository, the Archive of Our Own, and attempts to begin exploring the question of what kind of environment the site’s particular blend of open social tagging and some behind-the-scenes vocabulary control, plus hierarchical linking, creates for the users who search through it for fiction. This information was sought largely through survey questions that allow the users to explain their perspectives on the experience, rather than through strict objective measurements. The Archive, also known as the AO3, introduces itself on its home page, archiveofourown.org, as “a fan-created, fan-run, non-profit, non-commercial archive for transformative fanworks, like fanfiction, fanart, fanvids, and podfic.” Fanworks are transformative works using the characters or premises from previously existing fictive works—television shows, movies, books and so on.

The AO3 is a project of the non-profit Organization for Transformative Works, which also runs the wiki “Fanlore” that further defines fanworks thusly: “In fanworks, some element of a canon work—the source text or event—is taken and incorporated into a new creative piece. The taken element can be the characters, world setting, plot, stories, still images, video clips, or something else from the source.” The Archive is already large and rapidly growing; as of June 22, 2012 it had 386,229 works posted in 9344 fandoms, with 53,768 usernames participating. The administrators of the site give further details about this rapid growth in a user update posted June 11 2012, saying that “since the beginning of May the pace of expansion has accelerated rapidly. In the last month, more than 8,000 new user accounts were created, and more than 31,000 new works were

posted. This is a massive increase: April saw just 4,000 new users and 19,000 new works. In addition to the growing number of registered users, we know we've had a LOT more people visiting the site: between 10 May and 9 June we had over 3,498.622 GB of traffic. In the past week, there were over 12.2 million page views--this number only includes the ones where the page loaded successfully, so it represents a lot of site usage!" They attribute this sudden upswing in new users to an influx of users fleeing an older fiction repository, fanfiction.net, due to that archive's recent more stringent enforcement of its existing policies against explicit works. One of the AO3's overarching philosophical directives is to be a home for works in danger of being deleted elsewhere, by other archives or internet service providers, so this influx is certainly welcomed.

Currently Archive users who are posting their own fanworks can create their own tags, so it is in that sense a free tagging system. But then some tags that are posted by users are considered non-canonical and are linked to the canonical forms behind the scenes by volunteers known as "tag wranglers." The canonical forms are set up by the wranglers for character names, pairings, and "source" names—the television show, book, movie, etc. that the fanwork is related to. There is a specific set of rules by which the wranglers determine the canonical term—for instance, a pairing name—indicating that a story involves a romantic or sexual relationship between two particular characters--is joined by a slash and arranged with whichever character's last name is first in the alphabet appearing first in the pairing name. For instance, if "Romeo and Juliet" were in the archive, the pairing tag for it would be "Juliet Capulet/Romeo Montague."

The system is much like the "use" and "used for" cross-referencing device in authority records of the Library of Congress. It is also not entirely a free-for-all in tagging

because some types of tags are required. Required information includes a rating, with the available choices being: not rated, general audiences, teen and up audiences, mature, and explicit. It also includes a warning, for which the choices are: choose not to use archive warnings, graphic descriptions of violence, major character death, no archive warnings apply, rape/non-con (meaning non-consensual), or underage. Both these “required fields,” however, give an option for an answer that is not really an answer. The fields are intended to give a reader information enough to steer clear if she might find a story upsetting, but if the author feels that it is “spoilery” to give these warnings—in other words, it would ruin an element of surprise in the story—he can choose the “choose not to use archive warnings” and the “not rated” options and the reader will know that if she proceeds it is at her own risk.

The tagging is also not entirely free-for-all in that the system pushes some suggestions at taggers in the form of autocompletes. For instance, if an author has assigned a story to a particular fandom and then starts typing a name in the “characters” tagging section, the system will suggest canonical names starting with those letters which have already been used for stories in that fandom. However, for all other tags the person posting the story can type in absolutely anything she wants, up to one hundred characters, including spaces, letters, numbers and some punctuation.

Some other terminology definitions may be useful for reading excerpts from responses on the short-answer questions. “Fandom” can refer to the overall societal group of fans, or to the fans of one source material in particular—for instance, one might refer to “Breaking Bad” fandom. “Fic” is an abbreviation for “fiction,” while “podfic” is recorded fiction. “Meta” is nonfiction musing on characters, source materials, fiction, or

fandom in general. “H/C,” appearing in some responses, refers to “hurt/comfort,” a common story structure. “Tag filtering” is a method of searching that was available on the AO3 for quite some time but is currently disabled as it was slowing the site down.

The study will be a useful addition to the literature on tagging. It will focus on a site whose tag-searching structure could be of interest to the builders of many other sites; while it is a “niche” site with a particular focus, it serves many, many users. If the tagging process proves successful for users it could serve as a template for other sites. The study is unusual in the literature for its focus on end users of the tags rather than creators of the tags, combined with its emphasis on qualitative rather than quantitative methods of study, with open-ended questions giving respondents the opportunity to expand on their experience with the site tags.

Literature Review

Relevant articles found tend to focus on one of three ideas: the efficacy of social tagging in general; the efficacy of social tagging with added vocabulary control; and the efficacy of tagging with some other kind of added structure, including facets, weights, “perspectives,” and hierarchy. The “social tagging in general” studies vary widely in their methodology and precise focus, but those in which the authors make any sort of statements about improving the efficacy of social tags tend to support the idea of adding vocabulary control or other knowledge organization features. They present purely-crowdsourced tagging as ubiquitous and useful in itself, but certainly capable of being improved by behind-the-scenes refinements.

Varied vocabulary arises in the studies for differentiating between tags intended merely for the use of the person tagging, and tags intended to be useful to others as well. Goh et al. (2009) define tags intended for public usefulness to be “extrinsic,” and those which are “personal or only relevant to a particular tag user” to be “intrinsic.” Razikin et al. (2011) replace “extrinsic” with “objective” and “intrinsic” with “subjective.” Shiri (2009) and Holley (2010) do not define these terms. Kipp (2008) separates those tags that would only be relevant to a particular user into “affective” and “time or task related,” with the “affective” tags such as “cool” relating to the user’s emotional response to the item and the “time or task related” ones, such as “toread” or “tobuy” relating not so much to the “aboutness” of the item as to the user’s intended context for the item. The shift in vocabulary between the Goh et al. (2009) and Razikin et al. (2011) is particularly interesting because these similar studies are actually performed by the same group of

researchers—Goh, Chua, Lee and Razikin, just listed in a different order—so apparently there is an evolution of thought in the definitions, or perhaps a switch in which the researchers define the terms. For purposes of the current study, the author uses extrinsic and intrinsic, as she believes that tagging is by nature subjective to some degree, and calling any type of it “objective” brings in the impossible idea that there could somehow be “one true tag” for a document, independent of the mindset and life experience of the tagger or the user searching by the tags.

Some definitions are also needed for the methodology of these studies. “Tag effectiveness” is spelled out in Razikin et al. (2011) as a measure of how accurately a tag reflects the contents of the document tagged, and “machine learning techniques” as techniques which rely on mathematical models that have been built from sizeable datasets, with information fed iteratively back into the datasets and again into the models. These two definitions are used in both the Razikin et al. (2011) and Goh et al. (2009). Both these studies also use the F1 or F-measure without defining it. It is a way of weighting recall and precision equally to determine what searches work best overall (Rennie 2004).

The methodologies of the studies in this group varied. Goh et al. (2009) and Razikin et al. (2011), unsurprisingly since they have all the same researchers, are both examples of an experimental study. In both, tags and documents are extracted from Delicious, and text categorization experiments are conducted using SVM, or “Support Vector Machine.” In the first study, two experiments are conducted, the first using only terms drawn, like keywords, from the documents, while the second includes tags. The second similar study (Razikin et al. 2011) offers more information, as the authors raise

the number of text categorization experiments using SVM to six, and add a new twist: they also run a human evaluation experiment in which readers manually examine around 2000 documents and decide how relevant their attached tags are.

The other studies, Kipp (2008), Shiri (2009), and Holley (2010) are not experiments but analyses of existing sites and tagging systems. Kipp (2008) looks at affective and time or task related tags from CiteULike, Connotea and Delicious. Shiri (2009) applies a more widespread analysis, which looks at ten different social tagging sites and compares their tagging features. The sites are Delicious, Backflip, Furl, Connotea, CiteULike, Technorati, YouTube, Flickr, MySpaceTV, and Bubbleshare (Shiri 2009). The author examines many different tagging and tag-use features on all these sites and compares the availability and relative usability of the features. Holley (2010) on social tagging of articles in Australian newspaper archives is an observational study of “real-life” usage of one specific archive. The Australian Newspapers Digitization Program gathered statistics on tagging and communicated with users during the first year that tagging by the public was available.

The results of both experimental studies seem to point toward a need for some vocabulary control in making tagging more useful. Human-created tags in Razikin et al. (2011) perform fairly poorly, and the authors posit from this result that people creating tags might not be well versed in tagging strategies, that people creating the tags are not necessarily using the same vocabulary as people who later try to use the tags for searching, or just that the tags are not meant for other people to use them for retrieval--which suggests that tag creators are often using intrinsic, or only personally meaningful, tags. The results for Goh et al. (2009) seem to show that, overall, tags do not make it any

easier to find relevant documents than just using keywords drawn from the documents, except in cases such as food-related tags in which the terms are well-understood by most users. The authors note that the availability of tags as an option for users does not seem to affect the performance of the SVM classifiers for good or ill, which suggests to the authors that “tag effectiveness for navigation of sites is variable” (Goh 2009, 578). The authors specifically mention a need for vocabulary control, noting that if a site’s mission is for users to be able to share content with one another, those people tagging documents should use tags from a vocabulary shared with all users of the tagging system. They reiterate that tags meant for public use would be maximally helpful if the documents being tagged had defined vocabularies associated with them (Goh et al. 2009). And in Razikin et al. (2011), when noting that tags vary in their usefulness for finding relevant content, the authors add that one reason could be a lack of a controlled vocabulary, resulting in a wide range of quality in tags.

Shiri (2009), in his observational analysis of many different sites, concludes that the sites like Delicious with the primary purpose of allowing users to organize, tag and arrange their own material offer many more tagging features than those sites focused on letting users make material they created available to others. Kipp (2008) notes that affective and time and task based tags, while not useful in the same way as more “aboutness” based tags, may help users express an emotional connection to the items and set up a very personal information management structure. The overall conclusion of the other analytic article, by Holley (2010), is quite enthusiastic about tagging, saying that users want it, it adds value to data, and it is cheap and easy to do. The author feels that more archives and libraries should simply leap into tagging their whole collections. But,

while extremely enthusiastic about tagging in general, the author notes that the users of the system themselves are desperate for some structure and vocabulary control, with the Australian Newspapers Digitisation Program members receiving many emails complaining of “tagging chaos” and requesting rules and guidelines.

Some gaps in the literature are apparent in this group—Goh et al. (2009) note that using only objective measures to determine tag effectiveness limits the results and that the reactions of users would be helpful to consider as well. They posit that future research should combine objective measurements with subjective ones such as how useful users perceive tags to be. This suggests a need for such studies as the one proposed here.

And in Razikin et al. (2011) the “human evaluation element” added to the machine learning tests involves humans who all hold Master’s degrees at minimum, have training in information science, and have familiarity with tagging. These are far from ordinary users, which makes it unclear how applicable the results would be for sites being tagged and searched by more average internet users. This is another issue that would be addressed by the proposed study; the respondents “will be asked if they have training in information science or have worked as volunteer “tag wranglers,” and the results will be separated out to see if there is any difference in satisfaction levels for these “experienced” users.

A second group of articles specifically discusses the option of using a controlled vocabulary for tagging. While most of the articles which discuss the “vocabulary control” option specify what “vocabulary control” means within the specific study performed, the only good definition of what it means in general within the information and library sciences field comes in the explanatory article by Leise, Fast and Steckel, in the June

2012 issue of the online information-architecture periodical “Boxes and Arrows.” In “What is a controlled vocabulary?” the authors reference Amy J. Warner’s “Taxonomy Primer” for the definition, “organized lists of words and phrases, or notation systems, that are used to initially tag content, and then to find it through navigation or search” (Leise et al. 2012, 1). They then expand upon vocabulary control’s usage with, “A controlled vocabulary is a way to insert an interpretive layer of semantics between the term entered by the user and the underlying database to better represent the original intention of the terms of the use.” (Leise et al. 2012, 1). This expresses quite well that aspect of vocabulary control that is familiar to anyone who has ever worked a reference desk—the term a patron first uses is very often not the best term to describe what he actually means.

Methodology and approach differ significantly among all these articles in the second group. The two articles involving experiments are Kiu and Tsui (2010) and Matthews et al. (2010). Tags in Kiu and Tsui (2010) study go through the authors’ “TaxoFolk” algorithm, which involves several phases. These include a tag pre-processing phase in which the tags are cleaned and consolidated, and infrequent and invalid tags are filtered out; and a domain contextualization phase in which hierarchical relationships are set up in the taxonomy (Kiu and Tsui 2010). In other words, the folksonomy of user-applied tags—in this study, tags drawn from Delicious is cleaned up and arranged into a pre-existing taxonomy—in this case, the GovHK’s portal (<http://www.gov.hk>) The algorithm used incorporates a list of valid symbols including letters, number and standard symbols such as hyphens and quotation marks, and filters out any tags using invalid symbols. It consolidates tags into root words—for instance, conflating “travels” and “travelled” to “travel” (Kiu and Tsui 2010). It filters tags that are infrequently used—in

practice, this seems to filter out “personal” tags of the type previously defined as “intrinsic.” Invalid tags are filtered by checking against concept definitions in Wikipedia, as this has newer terms than any preexisting word list. Tags are then contextualized into a hierarchy defined by the authors as “the subconcept-superconcept relationship,” which they consider synonymous to the is-a or parent-child relationship.

The paper by Matthews et al. (2010) actually involves two sub-studies. One uses the Intute subject gateway. This is a database, based in the United Kingdom, of research and education-related documents which have been hand-selected and cataloged (Matthews et al. 2010). In this study twenty-eight participants, all politics students at British universities, tag sixty documents apiece. The other study uses papers in ePubs, an international repository for the Science and Technology Facilities Council (STFC.) These papers are then tagged by ten participants. All ten are scientists themselves and have previously deposited papers, or records of papers, in the STFC repository (Matthews et al. 2010). The “enhanced interface” which is tested in their study offers a list of Dewey Decimal class numbers based on whatever tag the user has entered; if the user selects one of the classes, both broader and narrower related classes are shown in the next frame. At the same time the user is shown a tag cloud of both DDC options and LCSH terms to choose from. General data on how the participants in both studies do their tagging is gathered, with the data in the smaller study tending more toward the qualitative and in the larger study more toward the quantitative.

Park and Tosaka (2010) is the one survey-based study in this group. The authors conduct a nationwide survey of mostly metadata and cataloging professionals. They use WebSurveyor, which has since evolved into Vovici, and ask questions about metadata

schema, content standards, and subject-controlled vocabulary used by the survey participants (Park and Tosaka 2010).

Leise (2012) is not a study at all but an explanatory piece giving definitions and examples of different types of vocabulary control—for instance, synonym/equivalence relationship is explained by the example of linking a woman’s maiden name to her married name. McCutcheon (2009) is largely a discussion of keyword access versus vocabulary control and how the two are combined in the library at the author’s home university, Kent State University in Ohio.

As for results in the experimental studies, Kiu and Tsui (2010), after trying out the “TaxoFolk” algorithm conclude that the study demonstrates that their algorithm techniques are promising and that using the algorithm to integrate folksonomy with taxonomy seems feasible. Matthews et al. (2010) only actually give the results for one of the two sub-studies; for the Intute demonstrator study results it refers readers to another paper, “EnTag: enhancing social tagging for discovery” (Golub et al. 2009). For the first substudy, in which the results are presented in detail, the conclusions included that the depositors of papers generally prefer choosing terms from a controlled vocabulary to making up their own terms (Matthews et al. 2010). Several of the study participants note that some automatic assistance in suggesting tags would be helpful. Also, the authors rate the tag cloud as unsuccessful—most participants do not use it and those who do use it do not find it helpful (Matthews et al. 2010).

In Park and Tosaka (2010), since the survey participants are metadata professionals, a need for controlled vocabulary is taken as a “given.” The conclusions are more about the comparison of the popularity of varying types of vocabulary control, and

suggestions for refinements thereof. Overall Library of Congress Subject Headings is found to be the default controlled vocabulary used across the board in all types of digital collections and repositories which handle the digital equivalent of print, while digital repositories handling nonprint resources like archival materials, cultural objects, and images often use purpose-built subject terminologies such as the Art and Architecture Thesaurus. Park and Tosaka (2010) also conclude that the survey responses show that making metadata interoperable among different systems remains an unfulfilled ideal, though there is growing acknowledgement of interoperability's importance.

Leise (2012), being more of an explanation of definitions relating to vocabulary control, does not attempt to draw conclusions about its usefulness. But in the other non-study article, McCutcheon (2009) concludes that at Kent State University Library, keyword searching and controlled vocabulary searching complement each other, and sums it up as "those with the most tools win."

One overall weakness in this area of the literature would include homogeneity of study participants. In the Matthews et al. (2010) study, both sub-studies have some issues with homogeneity, both in the documents used and in the study participants; the Intute sub-study uses all politics-centered documents, and all the participants are politics students at British universities, except for one from the European University Institute. All the participants therefore have similar educational levels and, while the authors do not mention the participants having any information science training, they all presumably have some research training and are steeped in the field for which the documents were written. The STFC study similarly involves somewhat homogenous documents and participants, with all the papers being scientifically oriented and all the participants being

scientists who have deposited similar documents in the repository (Matthews et al. 2010). It could be argued that most users of smaller digital repositories and collections would be in fairly tightly defined groups such as this, but it would also be useful and interesting to see how well the enhancement of vocabulary control worked to make repositories navigable for users with less of a background in a specific subject. The study being proposed would have a less homogeneous user group.

There are options for refinements to social tagging other than simple vocabulary control. The third group of papers presenting these other options has a variety of methodologies. Tsui et al. (2009) and Zhitomirsky-Geffet et al. (2011) would both be considered experimental studies, focused on hierarchical taxonomy construction from tags. In Tsui et al. (2009), studying automatic hierarchical taxonomy construction from tags, the tags are collected from the tag clouds of folksonomic websites and then a taxonomy is constructed based on heuristic rules. Three basic rules are used. Rule one is that when one term is the same as a second term but modified with certain additional words, the longer term is taken to be part of the shorter one. For instance, the category of cargo shorts would be categorized as part of the category of shorts. Rule two is used to detect abbreviations, linking an alphabetical match in first letters to the longer term in a “neighbor” relationship, which appears to be the term used here for “equivalence” relationship. For instance, “ETA” would be matched to “estimated time of arrival.” Rule three is used to clarify relationships within a given term when the term has an “and” or an “or” already in it. The taxonomy derived from the above rules is then compared to an existing expert taxonomy developed and used by the United States Environmental Protection Agency. After these heuristic rules are applied, the terms are further subjected

to an algorithm which arranges tags into a taxonomy based on relationships inferred from a grammar-based analysis of the texts in which the terms appear.

Zhitomirsky-Geffet et al. (2011) is similar to Tsui et al. (2009) in that part of its taxonomy is also constructed automatically. The authors also note that their structure creates a sort of feedback loop, with the tags given for each image being fit into the perspective-based ontological structure, and with that structure then being available for users to help them with deciding on future tags (Zhitomirsky-Geffet et al. 2011). The paper's refinement to social tagging is the idea of organizing the tags into "perspectives," which the authors define as "a set or group of several ontological concepts and their relationships and thus it constitutes a new ontological dimension" and later in the paper give the examples of "artistic, religious, traditional, political, historical, descriptive and geographical" as the perspectives used in this particular study (Zhitomirsky-Geffet et al. 2010, 6).

These two experimental studies bring in both new definitions of terms for the specific studies, and refinements of broader-field terms defined by earlier papers in this review. For instance, Tsui et al. (2009) provide a much fuller definition of "folksonomy" than Goh et al. (2009), who simply explain that folksonomy is a portmanteau word for "folk taxonomy" and therefore suggests creation by lay users rather than information scientists or experts in a field. Tsui et al. (2009) specify that a folksonomy does not have any hierarchy or defined relationships between any of the terms, and that therefore a folksonomy really is not a type of taxonomy, because a taxonomy by definition has the terms connected in some sort of structural model, be it hierarchical, tree, or faceted. The authors also draw the contrast that taxonomies are regulated classifications imposed from

the “top” by site creators or maintainers, but folksonomy is uncontrolled and bottom-up, generated by users of a site (Tsui et al. 2009).

There is some contrast in definitions between Tsui et al. (2009) and Zhitomirsky-Geffet et al. (2010). Zhitomirsky-Geffet et al. (2010) use “taxonomy” and “ontology” interchangeably, in fact combining the terms to refer to a non-folksonomy approach as a “taxonomy/ontology based approach.” Tsui et al. (2009), however, specify that for the purposes of their study ontology and taxonomy are not synonymous. Their study is focused on the construction of an automatic taxonomy, and while taxonomy contains entities and relationships, ontology has entities and relationships but in addition strict formal structure and theory about the relationships and entities.

The other papers in this group are not experiments, but analyses of already-existing information. Rockmore (2010) discusses faceted tagging as a low-cost, low-effort way to improve search results over simple keyword search, with reference to earlier studies with Rockmore was involved in. Spiteri (2011) analyzes various other studies dealing with facets as a way of improving social tagging. Facets are described early in the paper with the Ranganathan definition by way of Arlene Taylor, as “clearly defined, mutually exclusive, and collectively exhaustive aspects, properties, or characteristics of a class or specific subject” (Spiteri 2011, 95). She looks at all the studies through the lenses of several research questions, which boil down to: 1) How do you choose facets? 2) How many facets would you need? 3) Who should choose the facets? 4) How do you make sure the facets are working for your site users? 5) How do you do maintenance and quality control?

Zhang et al. (2011) look at various earlier efforts studying the concept of

“weighting” subject tags. These range from historical attempts, such as the 1970’s ERIC database using indexes that differentiates between major and minor descriptions to the current MEDLINE/PubMed interface, using Medical Subject Headings, which notes “major” topics for hits with an asterisk. “Weighting” is defined within the parameters of this paper as enabling a search to retrieve “partially relevant” results, rather than using the standard binary subject indexing methods in which an item is either “about” something or it is not, with no gradations in its levels of “aboutness.”

These papers with their varying methodologies and different types of refinements to social tagging naturally have differing results and conclusions. Tsui et al. (2009) on automatic hierarchical taxonomy construction find the system studied to be worthwhile, with positive results when compared to other common taxonomy construction methods, leading to both increased recall and increased precision. Rockmore (2010) judges faceted tagging to be a useful, low-effort improvement on keyword search, improving results when simple keyword search has “flatlined.” Zhitomirsky-Geffet et al. (2010) on the construction of a hierarchy with “perspectives” also find the system used to be helpful, with the authors noting that the “top perspectives for each image indeed seem the most fitting and representative ones.”

As for the more “overview” type of studies, they also both draw optimistic conclusions about the type of tagging refinement discussed. Spiteri (2011) concludes that facets clarify tags and improve browsing. She also points out a basic problem with “tag clouds” unmentioned by any of the other papers that cover that subject. When a word’s significance is indicated by size, as is often the case with tag clouds, the length of the word can be conflated with its importance. That is, a short word which is displayed in a

larger font to indicate its frequent appearance as a subject heading in an online archive can still be smaller than a less-frequently-used, smaller-font word which just happens to contain more letters. For instance, even if poems by Billy Collins are tagged much more often in a poetry archive than poems by Wislawa Szymborska, and his name is in a larger font, her name might still be objectively bigger. She also notes that the studies she looks at all vary widely in their choice of facets, and that they neither explain the reasoning behind the choice of facets nor supply any mechanisms by which end users can evaluate the usefulness of the facets. And she laments that many of the studies covered in the paper do not hew to her definition of facets very well, using “facet” more or less interchangeably with “label” and not emphasizing the need for mutual exclusivity of facets. And Zhang et al. (2011), with its brief survey of the “weighting” subject tags, draws the conclusions that weighting is a useful thing and should be applied by taggers to provide more granular access to documents.

One weakness self-noted by one of the studies in this section (Zhitomirsky-Geffet et al. 2011) is that the study is incomplete in a sense: while it covers the principles of the perspective taxonomy and its implementation, it does not explore how well the constructed taxonomy works for users, that is, how well it works for image retrieval. They note that they wish to explore this aspect at a later time, but, as least as of this writing, a follow-up paper does not seem to have been published. The actual functionality of tagging for the users of a site is intended to be the focus of the proposed study.

The points that seem most clear from all of the literature surveyed here are that social tagging is an evolving field, with few obvious “rules” or best practices, and that any refinements or additions to social tagging are even earlier in stages of study. Part of

the difficulty in making any sort of rules for “how social tagging should work” lies in the fact that the sites in which tagging is used vary so widely, ranging from huge mass audience sites such as Flickr and Delicious to niche sites with much more homogenous users, such as the scientific papers depository used in the SFTC study in Matthews et al. (2010). Users bring such different needs to social tagging sites, both in the process of creating tags and the process of actually using them to search, that it is doubtful if ironclad “answers” will ever be found, but certainly more data would be useful.

Another point that emerges from the literature looked at here is that existing studies seem to largely focus on tag creators, and therefore there is a need for more studies which explore the views of site users on tagging, and on attempts by sites to refine tagging by means of vocabulary control or weighting or anything else. Studies also seem to largely focus on quantitative data rather than qualitative, suggesting a gap to be filled by more qualitative studies. Precision and recall rates are obviously important, but as the internet becomes more and more of a fixture in peoples’ lives—in work, academic and social contexts—it also becomes more and more important how a site “feels.” Studies such as the proposed one, which focus on site users and give them a chance to say more than simply checking a box, will tell researchers more about whether a site is likely to retain users and to truly be helpful to them.

Research Questions

The main research question of the study is:

- How do users searching the Archive of Our Own for fiction feel that the site’s particular blend of open social tagging and some behind-the-scenes vocabulary control plus hierarchical linking serves them in their searching?

More specific questions include:

- How do users feel that searching the “tag cloud,” which can be set to reflect most popular tags or a set of random tags, works for them?
- How do users feel it works for them when a search for one term redirects them to the “authoritative” version of that term?
- How do users feel that it works for them when they search using “fandom,” “rating” or other tags which are required and can only be filled by a short list of provided terms?
- How do users feel that searching through “bookmarks” posted by other users works for them?
- How do users like the new functionality allowing them to see the relationships and structure of tags?
- How do users feel that the searchability of the site compares to the more rigidly structured fanfiction.net?
- What themes emerge in users’ discussion of their searches at the AO3?
- What other searching-related topics do users suggest are important?

Research Methods

The goal of the study is to explore how the Archive's hybrid structure of free-tagging combined with some vocabulary control and hierarchical structure behind the scenes works for users who are attempting to use tags to search for fiction. The study is a mixed-methods one, consisting of a survey given online by applying a survey instrument powered by Qualtrics. It has some questions about the survey-takers, including age ranges, their first language, whether or not they are volunteer tag wranglers or otherwise involved with tagging in the AO3, and whether they have a background in information science, library science or other fields that might result in grounding in social tagging and vocabulary control. It asks for the respondents' favorite fandoms, defined as those for which they search most often for related fiction in the Archive of Our Own. It has some multiple-choice questions about specific types of searches that the user has undertaken on the Archive, and some short-answer questions designed to draw out more detail about how the users feel about the system's search functionality, similar to the questions from the pilot study quoted below. It looks at user's experiences of searches which refer them to a different, "authoritative" version of the tag they originally searched for and searches which give them information about a "parent/child" relationship in the tags. It also inquires whether they have searched for fiction at fanfiction.net, which has a much more limited and regimented vocabulary-controlled tagging system, and how they feel their searching success compares between the sites. The study's main focus is on the qualitative data obtained from the short-answer questions, rather than on the quantitative data obtained from the yes/no questions. This qualitative focus works well with the

sample size for the survey, as qualitative studies are intended to “collect extensive detail about each site or individual studied” than to be able to generalize the results gathered. (Creswell, 2007.)

This researcher performed a similarly-themed pilot study in the fall of 2011 as part of the coursework for Library and Information Science 890, Advanced Research Methods in Information Studies. Over forty people answered at least part of the survey, with twenty-three people answering the short-answer questions. Answers to multiple-choice questions were quantitatively analyzed as simple percentages, and for the short-answer questions the results were qualitatively coded for recurrent phrases and ideas. The multiple-choice answers given in the pilot would seem to suggest that on the whole users who took the survey are fairly satisfied with the search results they get from the search strategies asked about. For example, more than eighty percent of the people who searched for a term and were directed by the site’s authority control system to a different term felt that the new term was a useable synonym of the term they had searched for. This implies that the hybrid “user tagging/vocabulary control and hierarchy behind the scenes” setup of the Archive of Our Own works reasonably well for those searches.

In the short-answer questions, the respondents did mention issues and problems with some types of the inquired-about searches, but largely mentioned that resorting to other types of searches worked for them. This seems to suggest that having many different types of searches available works for different users, and might cancel out any problems caused by one particular type of search being confusing for a particular user. This was reinforced by the answers which pointed out that searchers were using the “choose fandom, then narrow by terms on the sidebar” strategy which the researcher had

not inquired about. Apparently the hybrid social tagging and vocabulary control/hierarchy is a strong enough system that having several different ways of approaching it makes it a robust system for many different users.

Among the lessons learned from the pilot-study process were that quite a few users of the Archive seem to be willing to take time to answer questions about their experience with it: the survey was only available for a few days and was not aggressively publicized, yet still got more than forty respondents. The pilot study also convinced this researcher to put the questions for this study on a fully public site such as the University of Wisconsin at Milwaukee's survey instrument. In the pilot study, even though it was explained in the instructions for the survey that this was a small preliminary study, some respondents seemed highly annoyed that it was hosted only on LiveJournal. Also, the respondents overall proved highly willing to answer short-answer questions in great detail, mentioning quite a few issues not specifically asked about by the researcher, causing her to restructure the questions somewhat and especially to move the emphasis of the study much more toward questions that will need to be analyzed qualitatively rather than quantitatively, since a surprising amount of information was generated by the pilot study's only two short-answer questions. These questions were: 1) "Describe your overall experience with searching the Archive of Our Own. As a whole, do you find it useful or not, difficult or not, intuitive or not?" and 2) "If you have points about or issues with searching in the Archive of Our Own which were not mentioned in the survey, what are they?"

The survey questions for the current study are also changed somewhat in other ways from those on the pilot-study survey. The survey-takers are asked to compare their

evaluation of searching the AO3 with searching at fanfiction.net, rather than at delicious or at pinboard, because fanfiction.net is a site more similar in intent to the AO3 than the other two sites are, so the comparison will be of more similar searching intent. Some questions have also been rewritten because the search setups at the AO3 are in the process of being updated, with the “tag filtering” sidebar currently disabled.

As for limitations of the study, there is always the question with online research of whether those people who can and will take a survey online are truly representative of a meaningful population segment. If the segment this researcher was interested in was very general, such as “all licensed drivers in the United States,” or specific in a way not directly related to the internet, such as “all expert crocheters in the United States,” it probably would not be truly representative and this would be a problem. But the population the researcher is attempting to reach with this survey is a population that is already by definition online, since the survey is about their usage of a website. This would fall into the group mentioned in Babbie (2008, 300) as being “ideally suited to online surveys: particularly, those who visit a particular website.”

Within the group of users of the site, there are limitations as to how representative the sample can be, since it is of necessity be taken by those people who have time and interest in filling out a survey, and since it was publicized by the internet version of “word of mouth.” Emailing all, or a random sample of, official users of the Archive of Our Own site to publicize the survey was not practical, since most users do not give email addresses on their site profiles. Also, while one has to be a registered user with a visible username to post to the site, one does not have to be a registered user to merely read fiction or view art on the site, and the current research is on the searching and

browsing end of site usage, not on the posting end. So there would be many users who would be among this survey's target group who would not necessarily have a profile at the site at all. Therefore, links to the survey were posted by users at Dreamwidth, LiveJournal, Tumblr and Twitter. The links include requests to those who saw them to "boost the signal" by linking to the survey from their own journals, or other forms of posting, as well. This is not a perfect method of finding subjects but seems the best available.

There are also questions within the survey designed to see if the survey attracted large numbers of particular types of users. This includes, for instance, those who are also volunteer tag wranglers for the Archive of Our Own, and those who have training in library and information science. Their answers will be analyzed to see if there is a significant difference from the overall group.

The overall number of the survey would not be considered a limitation, since the survey is exploratory and focused more on the qualitative questions. Qualitative research is meant more to "collect extensive detail about each site or individual studied" than to generalize the results gathered. (Creswell, 2007.)

The ethics of this study seem largely unproblematic. The users are already "anonymized," or at least pseudonymized, as most users of the Archive use nicknames to begin with, and they of course could take the survey completely anonymously. The researcher assured the respondents of confidentiality as part of the introduction to the survey. The survey information will be retained on a password-locked computer and only the researcher and her advisor will have access to it.

There might seem at first glance to be some issue with the ethics of the study

regarding the fact that many of the stories in the archive are sexually explicit. But the survey is concerned with types of searching behavior, not “types of stories searched for and read,” so unless respondents volunteered this information unasked, the survey does not generate any information on any one respondent’s individual reading habits. As this is an internet survey it is impossible to verify the ages of the people responding to it, but the survey includes a request that people not fill it out unless they are legally considered adults in their country of residence. It might be interesting and useful to get a perspective on how well the tagging system works from younger users, who could very well have a different grounding in internet usage from older users, but attempting to obtain parental permission for an internet survey would have been problematic.

There was no direct benefit to any of the takers of the survey—no monetary payment, gifts, or special privileges, so there was no risk of someone doing the survey against their better judgment just because they wanted the reward for it. The summarized results of the survey will be given to the Archive volunteer staff, so that they can use that information in future upgrades if they wish to. But since there was no real risk being borne by survey-takers it is not a case of a risk being borne by one population with the benefit going to another.

In the interest of full disclosure, this researcher has used the Archive of Our Own both to post fiction and to search for reading material, and briefly did a small amount of volunteer work as a tag wrangler some years ago. There is no conflict of interest here, however; while this researcher is grateful for the AO3’s overall mission she has no particular investment in its current design being proven either optimal or suboptimal.

The ethics of the survey have been verified by the researcher’s obtaining

permission from the University of Wisconsin at Milwaukee's Institutional Review Board. It has been given the "exempt" rating, as it falls under the "exempt" category of "research including the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation" (Babbie 2008, 77).

The quantitative portion of the research was analyzed in a fairly straightforward and simple way, with percentages of respondents picking each option broken out for each question and graphs provided. Some regressive analysis was done, for instance cross-tabulating to see whether the answers skew differently for archive searchers who also have experience as tag wranglers, or for searchers whose first language is not English, or for searchers who are in fandoms which have a large number of stories available on the AO3 as opposed to smaller fandoms. Due to the fact that the sample's representativeness is unclear, such quantitative measures may lack generalizability and are included only for descriptive purposes. The qualitative, "short-answer" portion of the research required a more complex analysis. After several read-throughs of the entire body of responses, the researcher began to draw up a list of codes. Some of these were "in vivo" codes using the exact strings of text written by the subjects, and often matching with terms used in the question asked; some were the researcher's terms for words and phrases that might vary slightly within the actual responses. These codes were classified and grouped into several

general themes, sometimes with subthemes; (Creswell 2007, 153); or into general groups of “positive” and “negative” responses, depending on the intent of the question.

Code-counting was performed, with the caveat that some interpretive work had to also be done on the counts, not merely simple statistics, to come up with real meanings for the codes. They were not simply ranked by numbers of appearances, as that is not always a clear indication of meaning. For instance, a respondent might have used a text string the researcher had coded as “problem with vocabulary control in character names” but use it in the context of saying that she does not really find it much of a problem (Creswell 2007, 152). Adding this to a simple count of the “problem with vocabulary control in character names” code occurrence would give it exactly the opposite significance from that actually intended by the survey respondent.

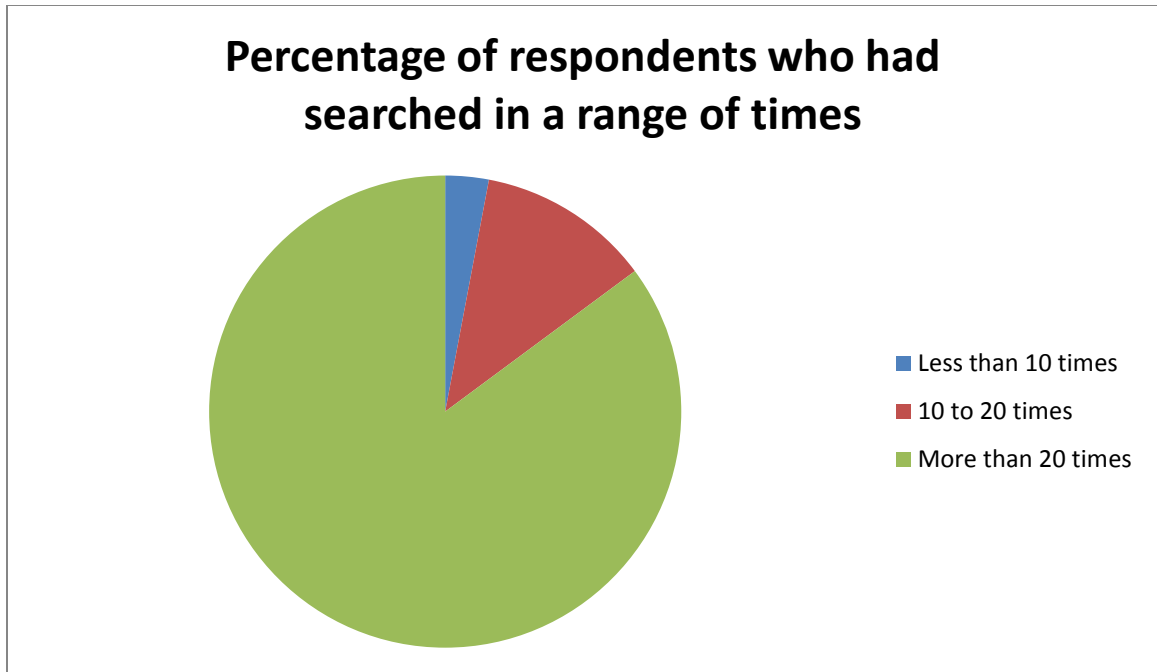
The responses were hand-coded, as the total page count of the responses from survey-takers was well under 500 pages, which seems to be the cutoff length for having the usefulness of a computer program outweigh the time, expense and frustration of having to acquire it and learn how to use it (Creswell 2007, 165). Then the researcher constructed a conclusion using the general themes and subthemes to give an overall idea of how the respondents viewed the process of tag-searching in the Archive of Our Own.

Results

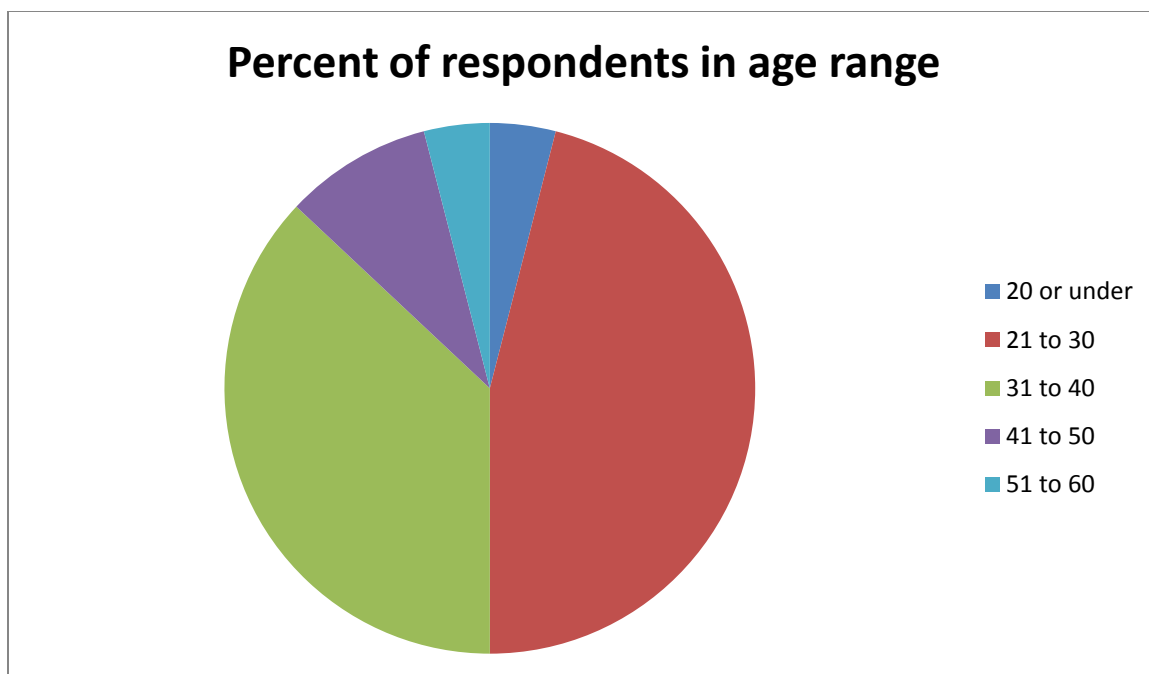
One hundred thirty-two people began the survey, and 116 completed it. The quantitative results were compiled using only data from completed surveys.

Personal Background of Respondents

One hundred thirteen people answered question one, “How many times have you searched for fanfiction in the Archive of Our Own?” The available answers were: fewer than 10 times, 10 to 20 times, or more than 20 times. Three people, or three percent of the respondents to that question, answered “fewer than 10 times.” Thirteen people, or 12 percent of the respondents, answered “10 to 20 times.” Ninety-seven people, or 86 percent, answered “More than 20 times.” Note that, due to rounding, the percentages will not always add up to exactly 100 percent.



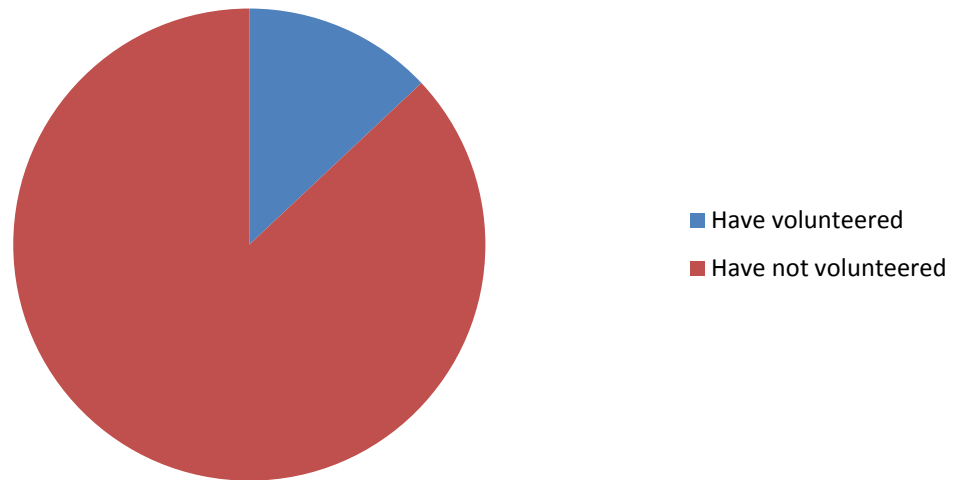
Question two was “Which category below includes your age?” Available answers were: 20 or under, 21 to 30, 31 to 40, 41 to 50, 51 to 60, 61 to 70, 71 to 80, or 81 or over. One hundred thirteen people answered this question, as well. Four people, or four percent of the respondents, answered “20 or under.” Fifty-two people, or 46 percent of the respondents, answered “21 to 30.” Forty-two people, or 37 percent of the respondents, answered “31 to 40.” Ten people, or nine percent of the respondents, answered “41 to 50.” Five people, or four percent of the respondents, answered “51 to 60.” Zero respondents answered with the remaining age categories.



Question three was “What is your first language?” For the purposes of this survey the researcher did not differentiate between different types of English, though some respondents specified “British English” or “American English.” Also, if a respondent listed two languages as an answer, having apparently grown up in a bilingual home, the respondent was counted in the “English” count if one of those languages was English. There were 15 non-English responses, made up of four French, three German, and one each of Danish, Finnish, Hebrew, Hungarian, Portuguese, Spanish, Swedish and Thai.

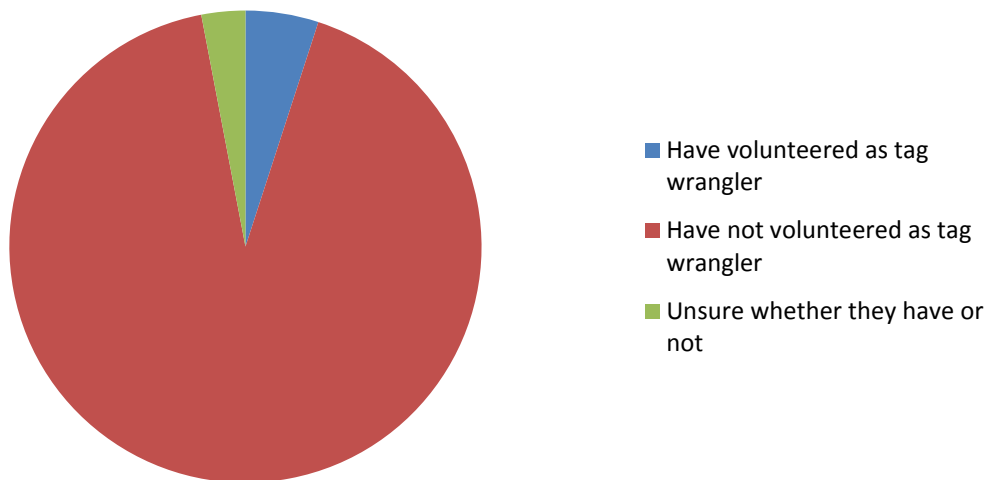
Question four was “Have you ever volunteered in any capacity with the Archive of Our Own?” One hundred thirteen people answered this. Fifteen people, or 13 percent of the respondents, answered, “Yes.” Ninety-eight people, or 87 percent, answered, “No.”

Percentage of respondents who have volunteered with the AO3 in any capacity



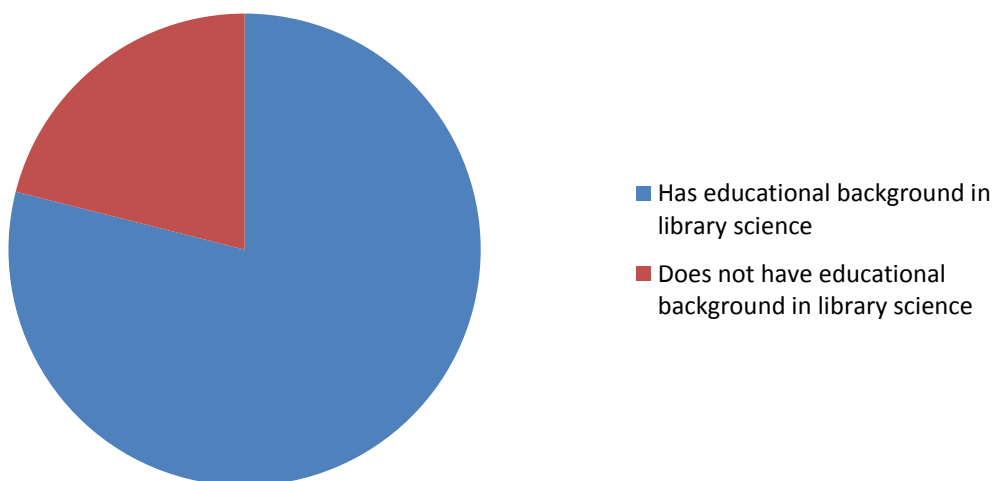
Question five was “Have you ever done any volunteer ‘tag wrangling’ with the Archive of Our Own?” One hundred thirteen people answered this. Six people, or five percent of the respondents, answered , “Yes.” One hundred four people, or 92 percent, answered, “No.” Three people, or three percent, answered, “Not sure.”

Percentage of respondents who have volunteered with the A03 as "tag wranglers"

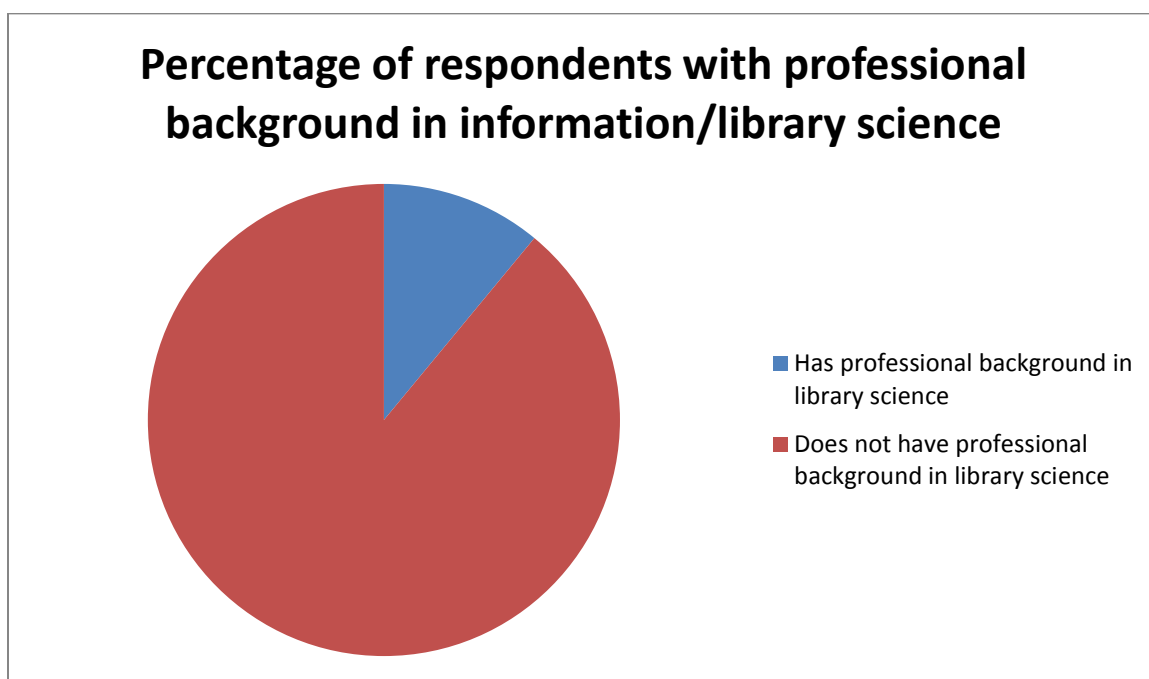


Question six was “Do you have any educational background in information/library science?” One hundred eleven people answered this. Thirteen people, or 12 percent of the respondents, answered, “Yes.” Ninety-eight people, or 88 percent of the respondents, answered, “No.”

Percentage of respondents with educational background in information/library science



Question seven was “Do you have any professional background in information/library science?” One hundred thirteen people answered this. Twelve people, or 11 percent of the respondents, answered, “Yes.” One hundred and one people, or 89 percent, answered, “No.”



Search Experience and Search Satisfaction of Respondents

Question eight was “Have you ever used AO3’s ‘tag cloud’ feature for searching?” One hundred thirteen people answered this. Sixty people, or 53 percent of the respondents, answered, “Yes.” Fifty-three people, or 47 percent, answered, “No.”

Question nine, which was only visible to people who answered “yes” to question eight, was “Were you satisfied with the results?” Sixty people answered this. Fifty people, or 83 percent of the respondents, answered, “Yes.” Ten people, or 17 percent, answered, “No.”

Question 10 was “Have you ever searched for a tag on the AO3 and been given a results page for a different tag?” One hundred thirteen people answered this. Forty-one people, or 36 percent of the respondents, answered, “Yes.” Seventy-two people, or 64 percent, answered, “No.”

Question 11, which was only visible to people who answered “yes” to question 10, was “Was the new tag a synonym for the tag you originally searched for?” Forty-one people answered this. Twenty-nine people, or 71 percent of the respondents, answered, “Yes.” Twelve people, or 29 percent, answered, “No.”

Question 12 was “Have you ever searched the AO3 using the ‘fandoms’ page, which is separated out into types of media?” One hundred thirteen people answered this. One hundred people, or 88 percent of the respondents, answered, “Yes.” Thirteen people, or 12 percent, answered, “No.”

Question 13, which was only visible to people who answered “yes” to question 12, was “Were you satisfied with the results?” One hundred people answered this. Eighty-six people, or 86 percent of the respondents, answered, “Yes.” Fourteen people, or 14 percent, answered, “No.”

Question 14 was “Have you ever searched the AO3 using the tag search box?” One hundred thirteen people answered this. One hundred four people, or 92 percent of the respondents, answered, “Yes.” Nine people, or eight percent of the respondents, answered “No.”

Question 15, which was only visible to people who answered yes to question 14, was, “Were you satisfied with the results?” One hundred four people answered this.

Seventy-six people, or 73 percent of the respondents, answered, “Yes.” Twenty-eight people, or 27 percent, answered, “No.”

Question 16 was “Have you ever used ‘advanced search’ on the AO3?” This was answered by 113 people. Ninety people, or 80 percent of the respondents, answered, “Yes.” Twenty-three people, or 20 percent of the respondents, answered, “No.”

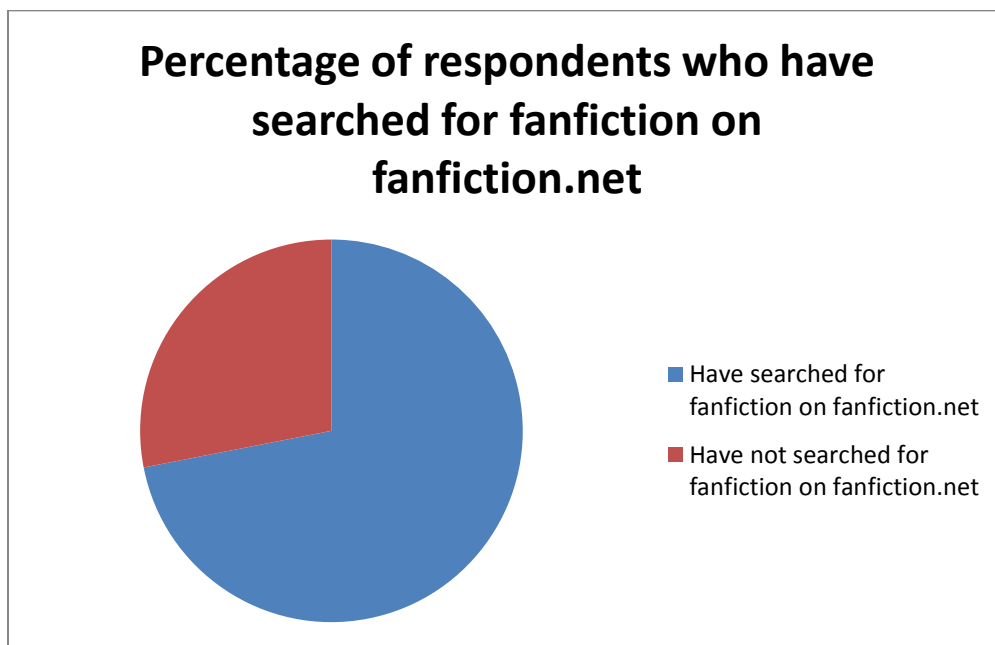
Question 17, which was only visible to those people who answered “Yes” to question 16, was “Were you satisfied with the results?” This was answered by 90 people. Sixty-two people, or 69 percent of the respondents, answered “Yes.” Twenty-eight people, or 31 percent of the respondents, answered “No.”

Question 20 was “Have you ever searched the AO3 using bookmarks?” It was answered by 113 people. Fifty-six people, or 50 percent of the respondents, answered “Yes.” Fifty-seven people, or 50 percent of the respondents, answered “No.”

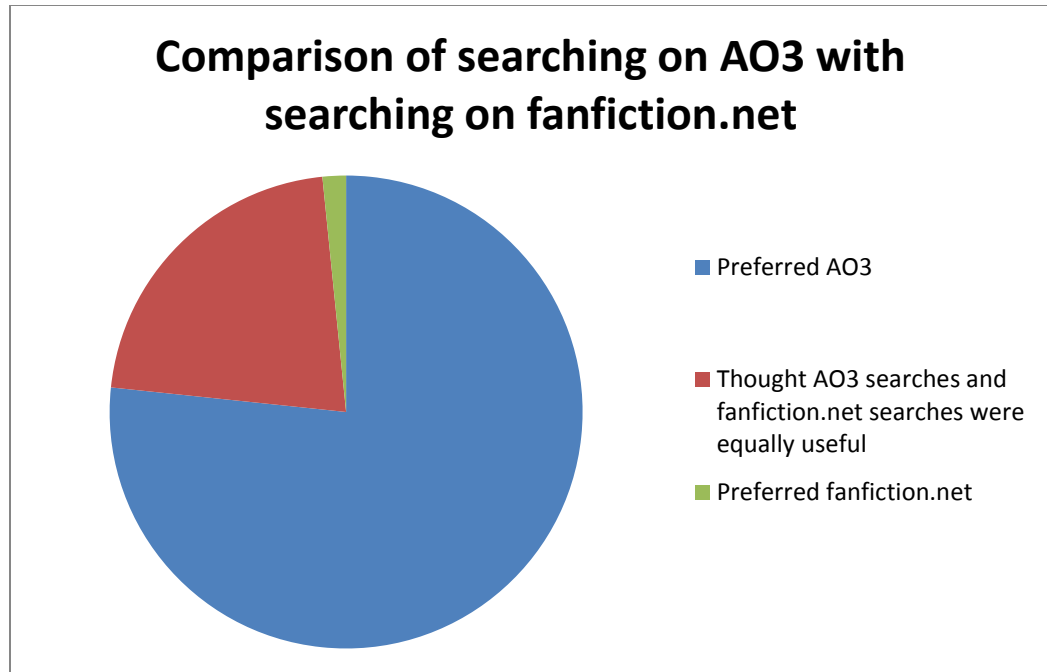
Question 21, which was only visible to people who answered “Yes” to question 20, was “Were you satisfied with the results?” This was answered by 55 people. Thirty-eight people, or 69 percent of the respondents, answered “Yes.” Seventeen people, or 31 percent of the respondents, answered “No.”

% of respondents who had:	Tag cloud	Fandoms page	Tag search box	Advanced search	Bookmark search
Used each search method	53	88	92	80	56
Been satisfied with each search method	83	86	73	69	69

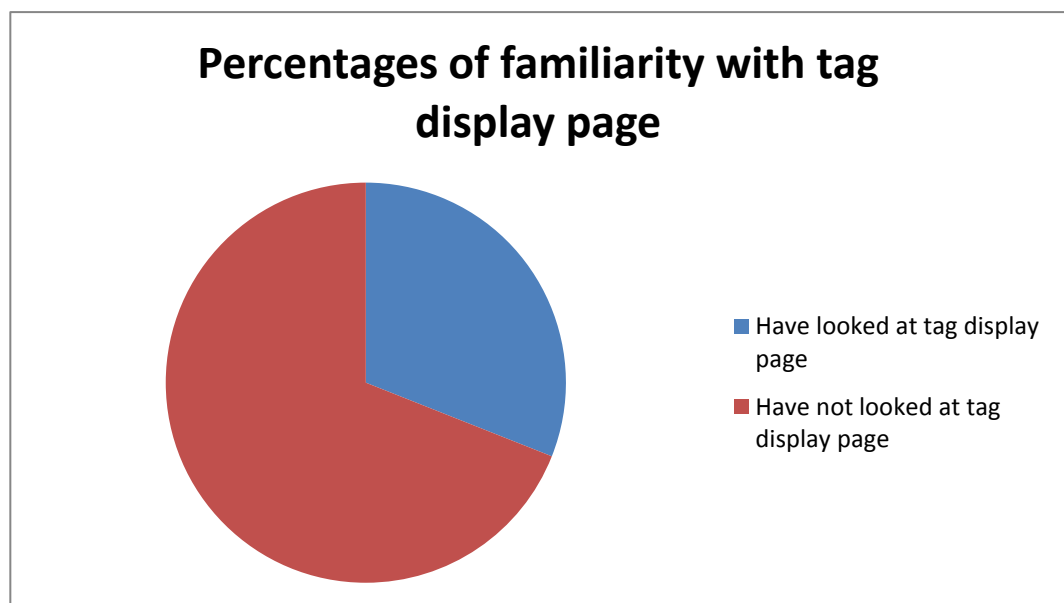
Question 18 was “Have you ever searched for fanfiction on fanfiction.net?” This was answered by 113 people. Ninety-two people, or 81 percent of the respondents, answered “Yes.” Twenty-one people, or 19 percent of the respondents, answered “No.”



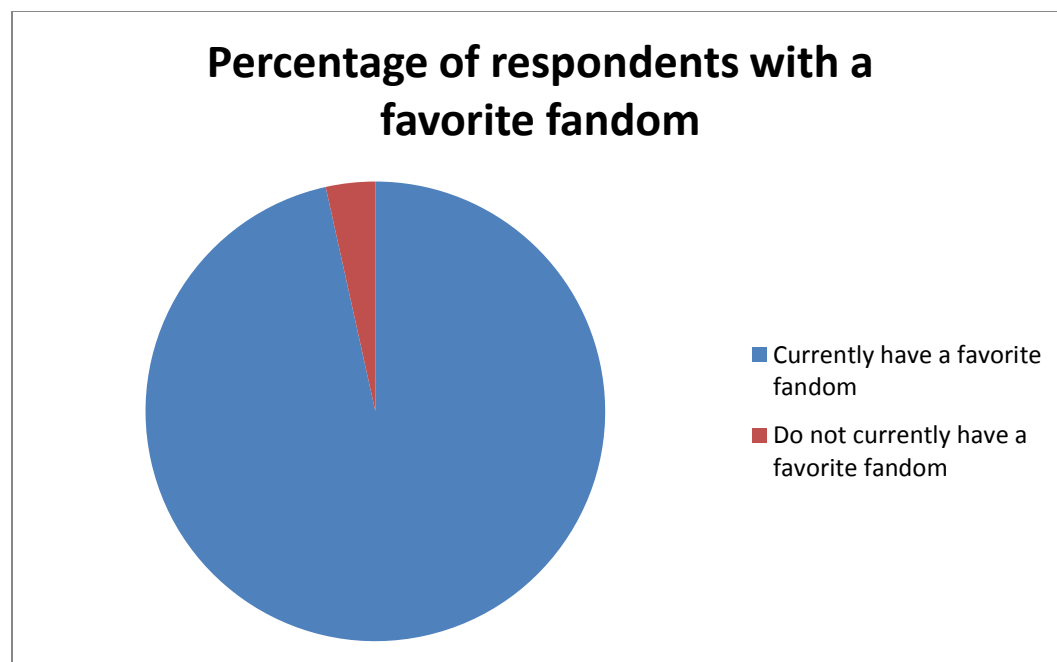
Question 19, which was only visible to people who answered “Yes” to question 18, was “How would you compare the searching process on AO3 to that of www.fanfiction.net?” This was answered by 91 people. Thirteen people, or 14 percent of the respondents, answered “I find the AO3’s searching process less useful than that of www.fanfiction.net.” Seventeen people, or 19 percent, answered “I find the AO3’s searching process equally as useful as that of www.fanfiction.net.” Sixty-one people, or 67 percent, answered “I find the AO3’s searching process more useful than that of www.fanfiction.net.”



Question 22 was “Have you ever looked at the AO3’s Tag Display Page (explained here: http://archiveofourown.org/admin_posts/247) which allows you to see the relationships between tags and their metatags, parent tags, subtags and child tags?” This was answered by 113 people. Thirty-five people, or 31 percent of the respondents, answered “Yes.” Seventy-eight people, or 69 percent, answered “No.”



Question 23 is discussed in the qualitative results section. Question 24 was “Do you have a ‘favorite’ fandom in the sense that you do more fanfiction searches on the AO3 for that fandom than for any other?” This was answered by 113 people. One hundred and one people, or 89 percent of the respondents, answered “Yes.” Twelve people, or 11 percent, answered “No.”



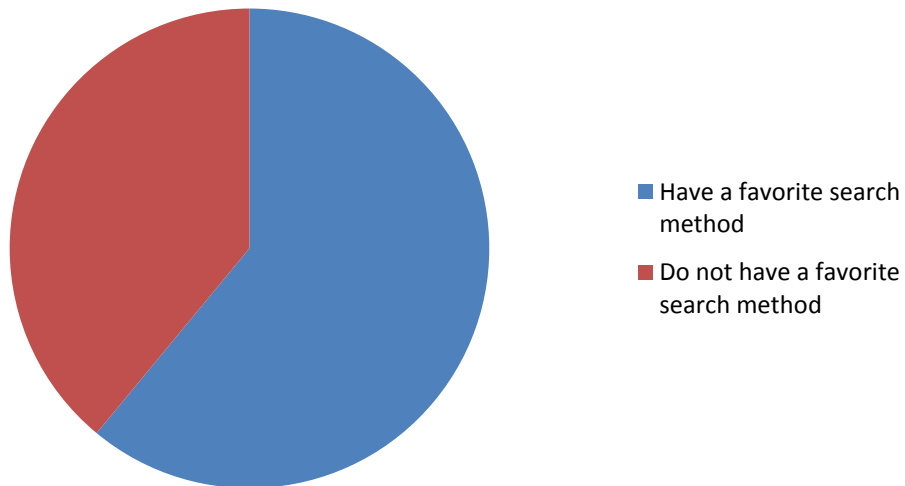
Question 25, which was only visible to those people who answered “yes” to question 24, was “What is it?” Ninety-four people answered this question, with 103 answers provided, as some people gave more than one response. In the rare instances when an answer was not absolutely clear the researcher attempted to clarify it based on her knowledge of current fandoms; for instance, “XMFC” was coded as “X-Men First Class” and “SPN” was coded as “Supernatural.” “Avengers or Marvel Movies Fandom” was given as a favorite by 21 people; “X-Men First Class” was also a favorite of 21 people. “Teen Wolf” was chosen by 14 people. “Sherlock” was a favorite of four people. “Due South” was the choice of three people, as was “Supernatural.” “Suits,” “Bandom,”

“Full Metal Alchemist,” “Angel the Series,” “A Song of Ice and Fire,” and “Doctor Who” were each chosen as a favorite by two people.

One person each chose the fandoms “DC Universe,” “Hockey RPF,” “Tamora Pierce,” “Inception,” “Master and Commander,” “Merlin,” “Sherlock Holmes—Arthur Conan Doyle,” “Homestuck,” “Prometheus,” “NCIS,” “Stargate--SG1,” “Mass Effect,” “Stargate Atlantis,” “Vorkosigan Saga—Bujold,” “Kuroko No Basuke,” “Once Upon a Time,” “X-Men,” “Parks and Recreation,” “Transformers,” “Buffy the Vampire Slayer,” “The Mentalist,” “The Three Musketeers,” “Zero/Project Zero/Fatal Frame Series,” “Sherlock Holmes and Related Fandoms,” and “Avengers Comics Including Marvel 616 and Marvel 1610 (Ultimates.)” There may seem to be some duplication there, but for “X-Men” without “First Class” added the researcher assumed that the respondent meant the comics or the earlier X-Men movies, rather than the already represented “X-Men First Class.” Similarly, “Sherlock Holmes—Arthur Conan Doyle” clearly refers to the books rather than to the already represented “Sherlock” TV series, and “Sherlock Holmes and Related Fandoms” was given a separate listing because it was unclear rather the respondent was referring to “Sherlock” the TV series, the Arthur Conan Doyle Books, the recent “Sherlock Holmes” movies with Robert Downey Jr., or perhaps every fandom ever related to the Sherlock Holmes mythos.

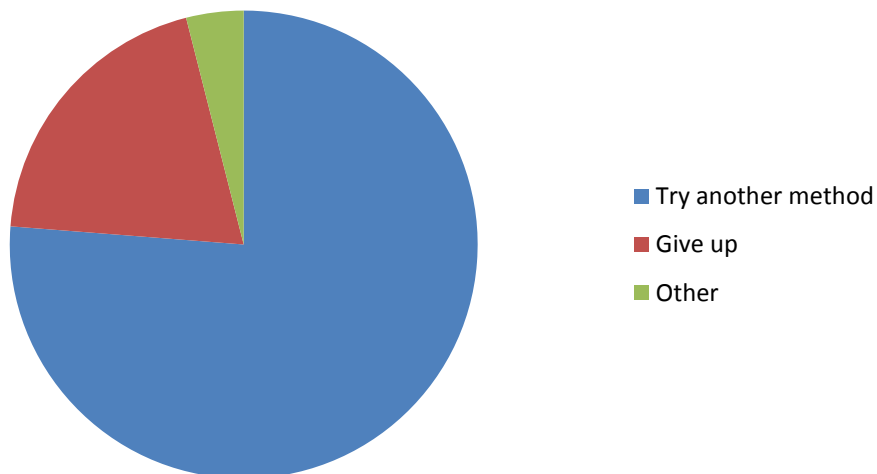
Question 27 is discussed in the qualitative results section. Question 28 was “Do you have a favorite search method that you use on the AO3?” This was answered by 111 people. Sixty-eight people, or 61 percent of the respondents, answered “Yes.” Forty-three people, or 39 percent, answered “No.”

Percentage of respondents who have a favorite search method



Question 30 was “If your favorite method does not give you the desired results, what do you do?” This was answered by 112 people. Eighty-six people, or 77 percent of the respondents, answered “Try another search method.” Twenty-two people, or 20 percent, answered, “Give up.” Four people, or four percent, answered “Other.”

Actions if favorite search method does not give desired results



Short-Answer Questions

Question 23 was, “Please comment on your overall view of the tag structure as shown on the tag display page. Do you find the structure with its parent, child, meta and sub tags clear or unclear, helpful or not helpful? Please give any other reactions to the structure as you understand it. The maximum number of characters is 3000, so you may be quite detailed if you like.”

To give a sense of the information provided in these answers, the researcher first looked for the cue words and phrases provided in the question: clear, unclear, helpful, not helpful. She noted whether these were qualified, for instance with “fairly” or “somewhat” or “mostly” or “sometimes,” or undercut with a “but” or “although” phrase after the cue word. She then noted other terms that were clearly indicative of positive or negative feelings toward the structure—for example, “easy,” “confusing,” “excellent,” “opacity,” or “intuitive.” She also noted that several responses were qualified by the respondent noting that she or he was, or had been, a tag wrangler, so that probably made the structure more intelligible for them (or, in a couple of cases, that even as a current or former tag wrangler, the respondent still found it confusing.) She noted also that some of the responses mentioned that the tag structure had been more useful when the currently-disabled tag filtering option was available.

With all this input considered, the researcher considered 17 of the 33 responses given to be largely positive, 10 to be neutral or mixed, and six to be largely negative. Fifty-two percent of the responses were therefore largely positive, 30 percent neutral or mixed, and 18 percent negative. Note that, as in the quantitative section, rounding will not always result in the total percentages adding up to exactly 100 percent. An example

of the neutral or mixed type would be, “I found the explanation helpful, thought it didn’t fully serve my needs and the way I search. When the full search functions *were* available, I had better luck searching, but was still limited as to whether authors would tag appropriately on the non-mandatory tags.”

An example of a clearly positive response was “It is very helpful. Keeping in mind that at present (October 2012), we’re only seeing an alpha version of the page. It’s even more than I had hoped for. Now I have a way of seeing which tags are even available to be used. It helps build the folksonomy because I can now tag my fic with those tags. When I don’t know which tags exist, that concept either goes untagged or tagged in a different way, which may not be wrangled in a way to allow it to be shown with the other fic that are related in that way.” This was also interesting in that it was the only response to this question that brought up the feedback loop of tagging, with the part of the answer about building the folksonomy—the respondent felt, from seeing the tag structure and already-used tags, that she or he was able to tag her own work more clearly, not just to search for other’s work more easily.

An example of a clearly negative response was “It is a complete mess and I can’t find a single goddamn thing. I hate it more than I have ever hated a website’s categorization functions and wish whoever was so wedded to the idea and is preventing any meaningful functional change would get driven out of the organization so sensible people could make it possible to actually find what you’re looking for.” This response brought home the fact that the tagging structure of a site can be not just a matter of convenience for some people, but a matter of genuine passion.

Question 26 was “Describe your overall level of satisfaction with searching the

Archive of Our Own. As a whole, do you find it useful or not, difficult or not, intuitive or not.” Again the researcher looked for clear negative or positive terms in the responses, including both terms referenced in the question and terms that were not. Terms included “satisfied,” “dissatisfied,” “unsatisfied,” “easy,” “difficult,” “intuitive,” “counterintuitive,” “functional,” “fun,” “frustrating,” and “opaque,” among others. She noted whether these were qualified with a “not” or a “fairly,” for instance, or an entire qualifying phrase starting with a “but” or something similar.

Using these terms, the researcher would categorize the 102 responses given as 73 largely positive, 19 largely negative, and the remaining 10 neutral or mixed. Seventy-two percent were positive, 19 percent were negative, and 10 percent were neutral. Examples of responses considered mixed or neutral include, “My biggest problem with searching at AO3 is attempting to find specific authors or works, which doesn’t work at all in many cases. It’s actually easier to use google to search AO3 for things like that. On the other hand, the tagging and etc [sic] stuff works pretty well,” and “Prior to the temporary disabling of tag filtering, I was general fairly happy with searching, although there are some tags that have not been linked/consolidated but should be (obscure fandoms/kinks/etc). I imagine I’ll return to being happy enough with the search options once tag filtering returns. Advanced search is better than nothing, but is no substitute for tag filtering.” Examples of responses the researcher considered positive would include, “I find it useful, extremely easy and well-clarified, and once you are used to it, definitely intuitive. (N.B. It only took three or four searches before I became completely accustomed to its terms and definitions—it has a readily-memorable layout)” and “I find it very useful to have the cloud tag facility, especially as I have no favourite fandom at

the moment, but may just want to find particular types of fic, such as h/c fics, in any fandom. The tag cloud is an incredibly easy way to do this. On the other side it is brilliant to be able to group fics by fandom, then just order them by number of hits to get the most popular ones. It's brilliant. 😊" Examples of clearly negative responses are, "It is REALLY impossible to find anything. It's impossible to search for more than two things at once, it's impossible to filter out the huge numbers of crossovers, I really don't like the limit of a thousand hits per search, and sometimes I get results and just have no idea why they came up" and "I could not be less satisfied with searching the archive if search set my genitals on fire every time I tried to use it."

For this question, the researcher also noted themes that came up in responses other than simply whether the respondent likes the search options overall or not. These included comparisons, both positive and negative, to other fiction repositories; references to the currently nonfunctional tag-filtering option; thoughts about how users create tags to begin with; and mentions of other options for searching in the AO3.

Of the comparisons to other fiction repositories, most of them were to fanfiction.net, and in most of those the AO3 was portrayed as superior. The researcher noted nine instances of references to fanfiction.net specifically, so it was mentioned in nine percent of the responses. Of these mentions six, or 66 percent of the fanfiction.net mentions, were clearly positive comparisons, such as "I find it much more useful in comparison to fanfiction.net" and "As a whole, I find it much better than ff.net's search because it has much more flexibility for both the author to mark their work and for the reader to look at it." One, comprising 11 percent of the fanfiction.net mentions, was neutral: "I find it to be intuitive and useful, but not particularly revolutionary or in

anyway easier/different from other general archive sites (ff.net for example). And two, or 22 percent of the fanfiction.net mentions, were negative: “I would have liked the addition of more clearly intuitive options, like the menu filters available on ff.net, which can help a lot with searches.” And “It’s not useful or intuitive, and I only resort to attempting it when my other ficcish resources (fanfiction.net, tumblr, livejournal’s newsletter links) have been tapped out.”

The researcher counted 19 references to the currently disabled tag-filtering sidebar, so these were present in 19 percent of the responses. They were almost entirely of the kind typified by the example “I miss tag filtering and am looking forward to that being functional again.” There was one fairly neutral reference: “It’s hard to say how intuitive or useful it will be once tag filtering comes back (hopefully moreso!) and one that was dismissive: “A lot of people I know have issues using the Advanced Search option, but I think this is mostly because they just want tag filtering back and don’t want to bother learning.”

Respondents, though asked specifically about searching, also responded with thoughts about the other end of the process—tagging the stories to begin with—and how this eventually affected the searching process. There was some distaste reported for “Tumblr-style tags.” This seems to be a reference to the kind of jokey tags that people put on Tumblr, ones which are not intended to tell the reader much about content or to be searchable. For instance, someone might use the Archive required tags to list fandom and character and rating, but then rather than adding freeform tags such as “angst” or “alternate universe” which could be useful for searching, the tagger might add “iwassodrunkwheniwrotethis,” “noreally,” “whyamievenpostingit.” Two respondents

noted, “the ‘tumblr’ style tagging just annoys me” and “A lot of new writers are tagging in the Tumblr style of tags. It’s made things slightly difficult to find unless I input the correct data.”

As for more general comments about the “tagging end” of the process, one respondent observed “I wish there was more effort made to explain the system and preferences to users rather than relying on tag wranglers on the back end (ie, it seems inefficient that they don’t inform people who post what the system ideally SHOULD be but instead use the wrangling system to impose preferences.) A tag-based archive is only as good as its users, but most casual users don’t know what they are supposed to be doing.” The researcher noted two respondents saying that they would like to be able to filter out crossovers, meaning that they wished to filter out “hits” that were written in more than one fandom.

Question 27 was “Do you have any particular frustrations with any of the search methods usable in the AO3? Please describe.” There were 86 responses to this, and nine of them, or 10 percent, were along the lines of “Not really” or “Not particularly.” In the rest of the responses, some common themes emerged. Twenty-four of the respondents, or 28 percent, expressed a wish to have the tag-filtering sidebar return. These comments are summed up fairly well by the examples, “I miss the functionality that let me narrow down search results by things like pairing or length...I can achieve a similar effect with Advanced Search, but the other way was easier!” and “I miss the tag filtering feature (down for maintenance for several months now). The search methods still available pretty much cover the gap, but using the tag filtering feature was much easier.”

An unexpected result was that, although none of the respondents used the term

“weighting,” several of them expressed a wish for functionality that amounts to weighting. This was best expressed in the comments “Right now, searching for stories by character or pairing returns many irrelevant results because it shows any story that features the characters, and gives no way to prefer those where the characters have a large role,” “Being a fan of particular characters in a series and not the ensemble cast makes tag-searching at AO3 completely useless, because authors are allowed to tag every character that gets a bare mention in their fic” and “I wish that tagging allowed writers to indicate the ‘main character’ or ‘featured pairing’ of their story. Right now, searching for stories by character or pairing returns many irrelevant results because it shows any story that features the characters, and gives no way to prefer those where the characters have a large role.”

There were also quite a few mentions of wishing for the functionality to exclude certain tags in searches, particularly crossovers. This was summed up well in the comment, “A huge thing I hear people say over and over is that they want the ability to eliminate crossovers. Fandoms like The Sentinel or Pern have so many crossover/fusion stories that people who want to only read about canon characters have trouble finding fic. There needs to be a way to say “Only Canon A.”

Another point often expressed was that searchers would like the ability to search by number of kudos. It is currently possible to search by number of “hits,” or how often a fic was opened, but not by how many times it received kudos from readers--basically the equivalent of hitting “like” on Facebook. As one respondent explained, “It’d be neat if you could search by number of kudos, but I realize that would put awesome fics with less traffic either due to summary of content, or whatever at a disadvantage. As a writer for

the archive I totally get this objection as a reader, it is nice to filter by ‘what everyone else is loving right now.’”

Several respondents also mentioned problems with the current Advanced Search option, including finding it: “It’s difficult to use the Advanced Search option because it isn’t linked independently on any of the pages; you have to do a search first and THEN go to the Advanced Search page” and in using it: “I wish there were a way to search for particular tags using advanced search—entering the desired character string into the tag field returns some works which are not tagged with that. (For example, search in the tag field for “characterA/character B” and get results which include Character A and Character B in the character list, but does not include the A/B tag.)”

And once more, several respondents discussed the “front end” of the process, that of applying tags to start with, and how that process affects the eventual searchability of the tagged fanfictions. “Tumblr-style” tags received more criticism, including “I don’t like the Tumblr-style of tagging that’s overtaking Fandom” and “All my frustrations are caused by the users misusing the tags (for example, the Tumblr-style tags), but that’s something that the archive cannot really police and can only be fixed by having the posting culture change from within.” There were also more general tag-creating criticisms, including “There has not been any sort of guidance for how to make tags, and people are clogging the system with ‘author’s note’ tags that are useless.”

Question 29 was only visible to people who answered “yes” to question 28, which was “Do you have a favorite search method that you use on the AO3?” The text of question 29 was “What is it, and why is it your favorite? (It does not have to be one of the search methods already mentioned in the survey.)” There were 63 responses to this

question. A clear favorite included several variations of “starting with the fandom page and narrowing from there.” An example of this was “I go to the fandoms page and find a fic with the pairing I want. I click on the pairing tag to get the page of all results for the pairing. If I am new to the fandom/pairing, I sort from longest fic to shortest, and read through the epics. I sometimes also sort by number of hits to see the most popular. After I have read through the major works, I read by date posted to see the new fics.” Again, the currently-disabled tag filtering sidebar was a favorite option—this was mentioned by six people or 10 percent of the respondents. Other clear favorites were advanced search, also with six mentions or 10 percent of the respondents and the tag cloud, with five, or eight percent of the respondents. Bookmarks were mentioned by four people, making up six percent of the respondents. Two people, or three percent of the respondents, mentioned subscribing to an author or a fandom—Archive users can sign up to request an email from the AO3 every time a favorite author posts something new or every time something new is posted in a particular fandom.

Question 31 was only visible to people who answered “other” to question 30, which was “If your favorite method does not give you the desired results, what do you do?” referring to the respondent’s favorite method of searching. The text of Question 31 was “Please describe your ‘other’ response.” As there were only four brief responses to the question, the researcher produces them here in full:

“add more stuff in the search box. If ‘Tavros’ doesn’t turn up ‘Tavros Nitram’ tag, then try Tavros Dave or Tavros character death or whatever.”

“try another fandom, or look at the bookmarks of people that have commented.”

“if the search method I start off with doesn’t give me the results I want, I tend to

just browse the fandom until I see something closer to appropriate and then browse by its tags.”

“I often look through public bookmarks of authors whose works I have enjoyed to find fics in the same fandom.”

Question 32 was “If you have any suggestions for improving tag-searching capability in the Archive of Our Own, please describe.” There were 50 answers to this question, and 10 of them, or 20 percent of the respondents, were of the “no suggestions” or “I’ve said everything I need to say in previous questions” ilk. The themes that emerge from the other 40 responses are for the most part familiar by now. Respondents would very much like the tag-filtering sidebar to return. Quite a few mentioned Boolean search; one said, “On tag filtering, I would love to be able to specify a bayesian OR.” But from the context, the researcher assumes that “bayesian” here was intended to be “Boolean.” There were a large number of requests for education on the “front” or tagging end, to give better results on the searching end; one respondent said, “Have a massive PR campaign about how to tag and how to search. PEOPLE DO NOT KNOW. WE’VE BEEN DYING FOR A FAQ, and killing the wranglers with work because we’re doing things wrong and they have to clean up after us. I hate that.” People mentioned the ability to exclude tags from search, again including crossovers as an example. “Tumblr-style tagging” was a focus of more criticism, with respondents wanting it disallowed or at least discouraged through front-end education. One respondent was a reluctant proponent of discouraging Tumblr-style tags: “I love some of the quirky, random tags that authors create (they tell their own kind of story!) but the archive is increasingly outgrowing completely free-form tagging.”

Other suggestions included “Fan work tags as high level mandatory categories with appropriate related characteristics, i.e. length and/or size for vid and podfic instead of word count...” This refers to the fact that the Archive accepts other types of fanwork than fic, including art, videos and “podfics,” or recordings of fic, which, much like audiovisual items requiring different catalog records than books, would benefit from different “fields.”

Another interesting suggestion was “What I’d really like is something Pinboard-like, where you click on one tag and then can see a tag cloud and click on multiple other tags within that cloud to add those tags to your search (a more visual “and” search, I guess).”

Question 33 was, “If you have points about or issues with searching in the AO3 which have not been mentioned in this survey, what are they? ” There were 21 answers to this; clearly “survey fatigue” was setting in at this point, and/or respondents felt as if they had covered all their points or issues in previous responses.

Nine responses, or 43 percent, were of the “no” or “none” or “not applicable” variety. In the remainder, respondents mentioned “another field for type of work would be useful—e.g. “Podfic” and “Fanart” and “Fanfic” and “Meta” and...whatever else seems useful.” (“Meta” in a fannish context refers to non-fiction writing—about the sources, be they television shows or books, about characters or themes, or about fanfic writing itself.) The return of tag filtering and the filtering out of crossovers were mentioned again.

One person said, “Search is unreliable...I prefer NOT to use google in searching for fic because I don’t want Google to have (and then sell) that information about me. However Google’s search code is genius-level intuitive when compared with AO3’s.”

Another respondent summed up his or her feelings about the Archive with “...you may have gotten the impression that I loathe the AO3’s tagging and searching function. However much you may think I loathe it, multiply that loathing by about four thousand and you may approach the actual level of loathing.”

Cross-Tabulations

Questions were cross-tabulated in order to ascertain whether certain groups within the respondents might have different evaluations of searching in the AO3 than the respondents as a whole did. Groups sorted out for cross-tabulation included heavy users of the Archive, less-frequent users, people who have volunteered with the Archive and people who have not, and people who have library science experience and people who do not.

Question one was “How many times have you searched for fanfiction in the Archive of Our Own?” This is a cross-tabulation of those answers with question nine.

		How many times have you searched for fanfiction in the Archive of Our Own?			Total
		Fewer than 10 times	10 to 20 times	More than 20 times	
Were you satisfied with the results? (of searching by tag cloud.)	Yes	1	5	47	53
	No	1	2	8	11
	Total	2	7	55	64

Fifty percent of those answering this question who had searched fewer than 10 times were satisfied with tag cloud search; 71 percent of those answering this question who had searched 10 to 20 times were satisfied with tag cloud search; and 85 percent of those

answering this question who had searched more than 20 times were satisfied with tag cloud search.

This is a cross-tabulation of question one with question 13.

		How many times have you searched for fanfiction in the Archive of Our Own?			Total
		Fewer than 10 times	10 to 20 times	More than 20 times	
Were you satisfied with the results? (of searching by "fandoms")	Yes	1	12	81	94
	No	1	2	13	16
	Total	2	14	94	110

Fifty percent of those who had searched fewer than 10 times were satisfied with searching by fandoms; 86 percent of those who had searched 10 to 20 times were satisfied; and 86 percent of those who had searched more than 20 times were satisfied.

Here is question one cross-tabulated with question 15.

		How many times have you searched for fanfiction in the Archive of Our Own?			Total
		Fewer than 10 times	10 to 20 times	More than 20 times	
Were you satisfied with the results? (of searching by tag search box)	Yes	0	11	71	82
	No	3	3	25	31
	Total	3	14	96	113

None of those who had searched fewer than ten times were satisfied with searching by the tag search box; 76 percent of those who had searched 10 to 20 times were satisfied; and 74 percent of those who had searched more than 20 times were satisfied.

These are the results for question one cross-tabulated with question 17.

		How many times have you searched for fanfiction in the Archive of Our Own?			Total
		Fewer than 10 times	10 to 20 times	More than 20 times	
Were you satisfied with the results? (of using advanced search)	Yes	0	8	59	67
	No	2	2	28	32
	Total	2	10	87	99

None of those who had searched fewer than 10 times were satisfied with using advanced search; 80 percent of those who had searched 10 to 20 times were satisfied; and 68 percent of those who had searched more than 20 times were satisfied.

Here are the results for question one cross-tabulated with question 19.

		How many times have you searched for fanfiction in the Archive of Our Own?			Total
		Fewer than 10 times	10 to 20 times	More than 20 times	
How would you compare the searching process on the AO3 to that of www.fanfiction.net?	I find the AO3's searching process less useful than that of www.fanfiction.net.	1	1	11	13
	I find the AO3's searching process equally as useful as that of www.fanfiction.net.	2	3	15	20
	I find the AO3's searching process more useful than that of www.fanfiction.net.	0	9	59	68
	Total	3	13	85	101

Of those who had searched the Archive fewer than 10 times, a third found the AO3's searching process less useful than that of fanfiction.net and two-thirds found it equally useful. Of those who had searched the Archive 10 to 20 times, eight percent preferred fanfiction.net, 23 percent thought the two repositories tied, and 69 percent preferred the

AO3. Of those who had searched the Archive more than 20 times, 13 percent preferred fanfiction.net, 18 percent thought the two repositories tied, and 69 percent preferred the AO3.

Here are the results for question one cross-tabulated with question 21:

		How many times have you searched for fanfiction in the Archive of Our Own?			Total
		Fewer than 10 times	10 to 20 times	More than 20 times	
Were you satisfied with the results? (of searching by bookmark)	Yes	2	3	34	39
	No	0	4	17	21
	Total	2	7	51	60

Question two on the survey was “Which category below includes your age?” Here are the results for that question cross-tabulated with question nine.

		Which category below includes your age?							Total	
		20 or under	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80		81 or over
Were you satisfied with the results? (of searching by tag cloud)	Yes	3	30	17	1	2	0	0	0	53
	No	0	4	7	0	0	0	0	0	11
	Total	3	34	24	1	2	0	0	0	64

All of the respondents who were 20 or under and replied to this question were satisfied with the tag-cloud search; 88 percent of those 21 to 30 were satisfied; 71 percent of those 31 to 40 were satisfied; all of those 41 to 50 were satisfied; and all of those 51 to 50 were satisfied.

Here are the results for question two cross-tabulated with question 13.

		Which category below includes your age?							Total	
		20 or under	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80		81 or over
Were you satisfied with the results? (of searching by fandom)	Yes	4	43	35	9	3	0	0	0	94
	No	0	9	5	0	2	0	0	0	16
	Total	4	52	40	9	5	0	0	0	110

All of the respondents aged 20 or under who answered this question were satisfied with searching by fandom; 83 percent of those aged 21 to 30 were satisfied; 87 percent of those 31 to 40 were satisfied; all of those 41 to 50 were satisfied; and 60 percent of those 51 to 60 were satisfied.

Here are the results for question two cross-tabulated with question 15.

		Which category below includes your age?							Total	
		20 or under	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80		81 or over
Were you satisfied with the results? (of using the tag search box)	Yes	4	39	29	8	2	0	0	0	82
	No	1	14	13	1	2	0	0	0	31
	Total	5	53	42	9	4	0	0	0	113

Eighty percent of the respondents aged 20 or under who answered this question were satisfied with the result of using the tag search box; 74 percent of those 21 to 30 were satisfied; 69 percent of those 31 to 40 were satisfied; 89 percent of those 41 to 50 were satisfied; and half of those 51 to 60 were satisfied.

Here are the results for question two cross-tabulated with question 17.

		Which category below includes your age?								Total
		20 or under	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	81 or over	
Were you satisfied with the results? (of using advanced search)	Yes	3	31	24	8	1	0	0	0	67
	No	1	14	13	1	3	0	0	0	32
	Total	4	45	37	9	4	0	0	0	99

Seventy-five percent of the respondents aged 20 or under who answered this question were satisfied with the results of using advanced search; 69 percent of the respondents aged 21 to 30 were satisfied; 65 percent of those aged 31 to 40 were satisfied; 89 percent of those 41 to 50 were satisfied; and 25 percent of those 51 to 60 were satisfied.

Here are the results for question two cross-tabulated with question 19.

		Which category below includes your age?								Total
		20 or under	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	81 or over	
How would you compare the searching process on the AO3 to that of www.fanfiction.net?	I find the AO3's searching process less useful than that of www.fanfiction.net.	0	4	7	2	0	0	0	0	13
	I find the AO3's searching process equally as useful as that of www.fanfiction.net.	1	9	5	3	2	0	0	0	20
	I find the AO3's searching process more useful than that of www.fanfiction.net.	3	36	25	3	1	0	0	0	68
	Total	4	49	37	8	3	0	0	0	101

Twenty-five percent of the respondents aged 20 or under who answered this question thought the AO3's searching process tied with that of fanfiction.net; 75 percent thought the AO3's searching process was more useful than that of fanfiction.net. Eight percent of those aged 21 to 30 thought the AO3's search options were less useful than

fanfiction.net's; 18 percent of that age group thought AO3 and fanfiction.net were tied; and 73 percent of that age group thought the AO3 was superior. Nineteen percent of those aged 31 to 40 thought the AO3's search options were less useful than fanfiction.net's; 14 percent of that age group thought AO3 and fanfiction.net were tied; and 68 percent of that age group thought the AO3 was superior. Twenty-five percent of those aged 41 to 50 thought the AO3's search options were less useful than fanfiction.net's; 38 percent of that age group thought the two options were tied; and 38 percent of that age group thought the AO3 was superior. Sixty-six percent of those aged 51 to 60 thought the AO3 and fanfiction.net were tied, and 34 percent of that age group thought the AO3 was superior.

Here are the results of question two cross-tabulated with question 21.

		Which category below includes your age?							Total	
		20 or under	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80		81 or over
Were you satisfied with the results? (of searching by bookmarks)	Yes	1	17	16	3	2	0	0	0	39
	No	1	11	7	1	1	0	0	0	21
	Total	2	28	23	4	3	0	0	0	60

Fifty percent of those aged 20 or under who answered this question were satisfied with the results of searching by bookmarks; fifty percent were not. Sixty-one percent of respondents aged 21 to 30 were satisfied with bookmark searching; 39 percent were not. Seventy percent of those aged 31 to 40 were satisfied with bookmark searching and 30 percent were not. Seventy-five percent of those 41 to 50 were satisfied with bookmark searching and 25 percent were not. Sixty-six percent of those aged 51 to 60 were satisfied with bookmark searching and 34 percent were not.

Question three was “what is your first language?” The researcher cross-tabulated the two different groups of language responses, English as a first language and other language as a first language, with other questions in order to see if the results seemed to suggest that there might be differences in satisfaction with searching the AO3 depending on whether the searcher is a native English speaker or not.

Question nine asked whether respondents who had used the AO3’s tag cloud feature for searching were satisfied with the results. Of 86 respondents who had listed English as a first language, 48 answered this question. Eight, or 17 percent of them said “No” and 40, or 83 percent of them said “Yes.” Of the 15 respondents who had listed other languages, four answered this question. One, or 25 percent, answered “No” and four, or 75 percent, answered “Yes.”

Question 11 asked, for those respondents who’d said they had had the experience of getting a results page for a different tag than they searched for on the AO3, whether or not that tag was synonymous with the one they searched for. Of the 30 “English” respondents who answered this question, 11, or 37 percent, answered “No” and 19, or 63 percent, answered “Yes.” Of the seven “non-English” respondents to this question, 100 percent answered “Yes.”

Question 13 asked whether those respondents who had searched using the AO3 fandoms page, which is separated out into types of media, were satisfied with the results. Of 76 respondents with English as a first language 13 respondents, or 17 percent, answered “No” and 63 respondents, or 83 percent, answered “Yes.” Thirteen “non-English” respondents also answered this, and 100% of them answered “Yes.”

Question 15 asked whether those respondents who had used tag search box were satisfied with the results. Of 78 “English” respondents, 25 or 32 percent answered “No” and 53 or 68 percent answered “Yes.” Of the 14 “non-English” respondents, one respondent, or seven percent, answered “No” and 13, or 93 percent, answered “Yes.”

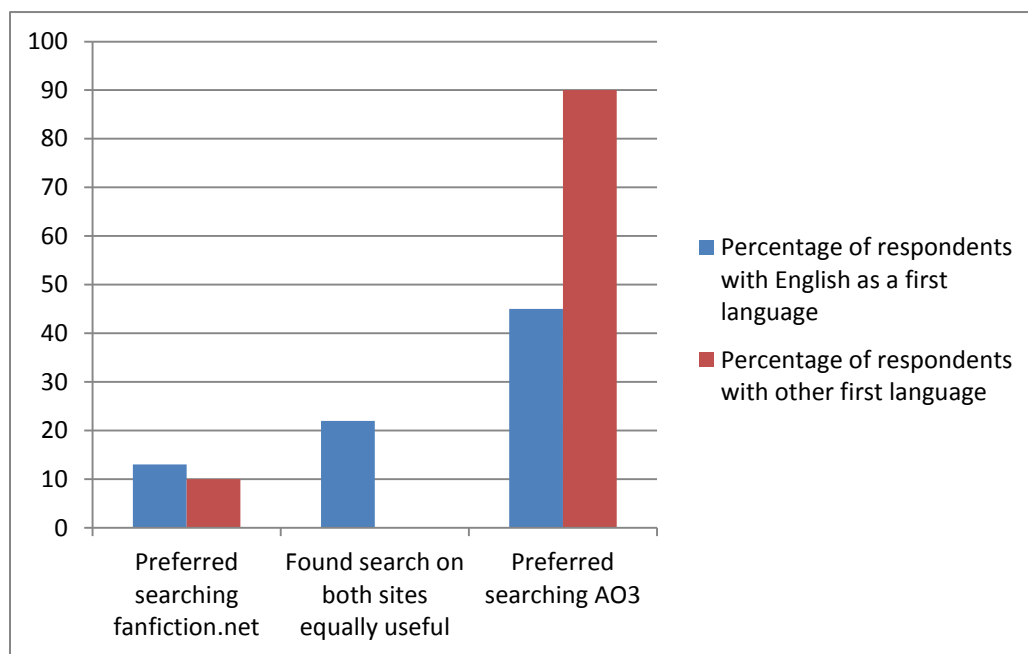
Question 17 asked whether those respondents who had used advanced search were satisfied with the results. Of the 65 “English” respondents, 24 or 37 percent answered “No” and 41 or 63 percent answered “Yes.” Of the 14 “non-English” respondents, one respondent, or seven percent, answered “No” and 13, or 93 percent, answered “Yes.”

Question 21 asked those respondents who had used bookmarks whether they were satisfied with the results. Of 41 “English” respondents, 12 or 29 percent answered “No” and 29 or 71 percent answered “Yes.” Of the nine “non-English” respondents, four or 44 percent answered “No” and five or 56 percent answered “Yes.”

First Language	Tag Cloud Search Satisfaction	Fandoms Page Search Satisfaction	Tag Search Box Satisfaction	Advanced Search Satisfaction	Bookmark Search Satisfaction
English	83%	83%	68%	63%	71%
Other	75%	100%	93%	93%	56%

Question 19 asked respondents who had also used fanfiction.net to compare the usefulness of the searching process on that site to the searching process on the AO3. Of 69 “English” respondents, nine respondents or 13 percent preferred fanfiction.net, 15 or

22 percent thought the two sites were equally useful for searching, and 45 or 65 percent preferred the AO3. Of the 10 respondents with other first languages who answered this question, 1 or 10 percent preferred fanfiction.net and 9 or 90 percent preferred the AO3, with no respondents finding the two search processes equally useful.



Question four was “Have you ever volunteered in any capacity for the Archive of our Own?” Here is question four cross-tabulated with question nine.

		Have you ever volunteered in any capacity with the Archive of Our Own?		Total
		Yes	No	
Were you satisfied with the results? (of searching by tag cloud)	Yes	5	48	53
	No	3	8	11
	Total	8	56	64

Here are the results of question four cross-tabulated with question 13.

		Have you ever volunteered in any capacity with the Archive of Our Own?		Total
		Yes	No	
Were you satisfied with the results? (of searching by fandoms page)	Yes	12	82	94
	No	3	13	16
	Total	15	95	110

Here are the results of question four cross-tabulated with question 15.

		Have you ever volunteered in any capacity with the Archive of Our Own?		Total
		Yes	No	
Were you satisfied with the results? (of searching using the tag search box)	Yes	10	72	82
	No	5	26	31
	Total	15	98	113

Here are the results of question four cross-tabulated with question 17.

		Have you ever volunteered in any capacity with the Archive of Our Own?		Total
		Yes	No	
Were you satisfied with the results? (of searching using advanced search)	Yes	10	57	67
	No	5	27	32
	Total	15	84	99

Here are the results of question four cross-tabulated with question 19.

		Have you ever volunteered in any capacity with the Archive of Our Own?		Total
		Yes	No	
How would you compare the searching process on the AO3 to that of www.fanfiction.net?	I find the AO3's searching process less useful than that of www.fanfiction.net.	2	11	13
	I find the AO3's searching process equally as useful as that of www.fanfiction.net.	1	19	20
	I find the AO3's searching process more useful than that of www.fanfiction.net.	8	60	68
Total		11	90	101

Here are the results of question four cross-tabulated with question 21.

		Have you ever volunteered in any capacity with the Archive of Our Own?		Total
		Yes	No	
Were you satisfied with the results? (of searching using bookmarks)	Yes	3	36	39
	No	3	18	21
	Total	6	54	60

Overall, both volunteers and non-volunteers seem to be happy with the search options and seem to prefer searching in the AO3 to searching in fanfiction.net.

Question five was “Have you ever done any volunteer ‘tag wrangling’ with the Archive of Our Own?” Here are the results of cross-tabulating question five with

question nine.

		Have you ever done any volunteer "tag wrangling" with the Archive of Our Own?			Total
		Yes	No	Not sure	
Were you satisfied with the results? (of searching using the tag cloud)	Yes	1	50	2	53
	No	2	9	0	11
	Total	3	59	2	64

Here are the results of cross-tabulating question five with question 13.

		Have you ever done any volunteer "tag wrangling" with the Archive of Our Own?			Total
		Yes	No	Not sure	
Were you satisfied with the results? (of searching by fandoms page)	Yes	4	87	3	94
	No	2	13	1	16
	Total	6	100	4	110

Here is question five cross-tabulated with question 14.

		Have you ever done any volunteer "tag wrangling" with the Archive of Our Own?			Total
		Yes	No	Not sure	
Were you satisfied with the results? (of searching with the tag search box)	Yes	3	78	1	82
	No	3	25	3	31
	Total	6	103	4	113

Here is question five cross-tabulated with question 17.

		Have you ever done any volunteer "tag wrangling" with the Archive of Our Own?			Total
		Yes	No	Not sure	
Were you satisfied with the results? (of using advanced search)	Yes	3	63	1	67
	No	3	26	3	32
	Total	6	89	4	99

Here is question five cross-tabulated with question 19.

		Have you ever done any volunteer "tag wrangling" with the Archive of Our Own?			Total
		Yes	No	Not sure	
How would you compare the searching process on the AO3 to that of www.fanfiction.net?	I find the AO3's searching process less useful than that of www.fanfiction.net.	1	11	1	13
	I find the AO3's searching process equally as useful as that of www.fanfiction.net.	0	19	1	20
	I find the AO3's searching process more useful than that of www.fanfiction.net.	3	63	2	68
Total		4	93	4	101

Here are the results of cross-tabulating question five with question 21.

		Have you ever done any volunteer "tag wrangling" with the Archive of Our Own?			Total
		Yes	No	Not sure	
Were you satisfied with the results? (of searching using bookmarks)	Yes	1	37	1	39
	No	2	17	2	21
Total		3	54	3	60

The number of volunteers who had specifically done tag wrangling was small enough that it was difficult to draw even tentative conclusions from this crosstabulating.

Question six was "Do you have any educational background in information/library science?" Here are the results of cross-tabulating that question with question nine.

		Do you have any educational background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of searching by tag cloud)	Yes	6	47	53
	No	0	11	11
Total		6	58	64

Here are the results of question six cross-tabulated with question 13.

		Do you have any educational background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of searching through fandoms)	Yes	12	80	92
	No	2	14	16
	Total	14	94	108

Here are the results of question six cross-tabulated with question 15.

		Do you have any educational background in information/library science?		Total
		Yes	No	
Were you satisfied with the results?(of using the tag search box)	Yes	11	69	80
	No	2	29	31
	Total	13	98	111

Here is question six cross-tabulated with question 17.

		Do you have any educational background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of advanced search)	Yes	9	56	65
	No	4	28	32
	Total	13	84	97

Here are the results of cross-tabulating question six with question 19.

		Do you have any educational background in information/library science?		Total
		Yes	No	
How would you compare the searching process on the AO3 to that of www.fanfiction.net?	I find the AO3's searching process less useful than that of www.fanfiction.net.	1	12	13
	I find the AO3's searching process equally as useful as that of www.fanfiction.net.	2	17	19
	I find the AO3's searching process more useful than that of www.fanfiction.net.	9	58	67
Total		12	87	99

Here is question six cross-tabulated with question 21.

		Do you have any educational background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of searching by bookmarks)	Yes	6	31	37
	No	4	17	21
	Total	10	48	58

Question seven was “Do you have any professional background in information/library science?” Here are the results of question seven cross-tabulated with question nine.

		Do you have any professional background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of searching by tag cloud)	Yes	4	49	53
	No	0	11	11
	Total	4	60	64

Here are the results of question seven cross-tabulated with question 13.

		Do you have any professional background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of searching from the fandoms page)	Yes	9	85	94
	No	5	11	16
	Total	14	96	110

Here is question seven cross-tabulated with question 15.

		Do you have any professional background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of using the tag search box)	Yes	10	72	82
	No	4	27	31
	Total	14	99	113

Here are the results of question seven cross-tabulated with question 17.

		Do you have any professional background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of searching with advanced search)	Yes	7	60	67
	No	6	26	32
	Total	13	86	99

Here is question seven cross-tabulated with question 19.

		Do you have any professional background in information/library science?		Total
		Yes	No	
How would you compare the searching process on the AO3 to that of www.fanfiction.net?	I find the AO3's searching process less useful than that of www.fanfiction.net.	1	12	13
	I find the AO3's searching process equally as useful as that of www.fanfiction.net.	3	17	20
	I find the AO3's searching process more useful than that of www.fanfiction.net.	8	60	68
Total		12	89	101

Here is question seven cross-tabulated with question 21.

		Do you have any professional background in information/library science?		Total
		Yes	No	
Were you satisfied with the results? (of searching by bookmarks)	Yes	3	36	39
	No	6	15	21
	Total	9	51	60

Overall, those with information science experience, either educational or professional, seemed to be largely in line with the opinions of the respondents as a whole. Most of them were satisfied with the result of each type of search, and most of them preferred searching the AO3 to searching fanfiction.net.

Question 23 was “Do you have a current ‘favorite’ fandom in the sense that you do more fanfiction searches on the AO3 for that fandom than for any other?” For those who answered “Yes,” there was a follow-up Question 24: “What is it?”

The researcher looked at the fandoms in these answers and cross-tabulated them with other questions in order to see if the results seemed to suggest that there might be

differences in satisfaction with searching the AO3 depending on whether the searcher is in a large fandom or a smaller one. For the purposes of this cross-tabulation, the researcher chose a large and smaller fandom based both on the number of fanworks tagged with that fandom on AO3, and the number of respondents to this survey who chose that fandom.

Out of 94 total responses to this question (some of which contained more than one fandom) “Avengers” was mentioned by 19 people, and as of November 19, 2012, there were 17, 848 works on the AO3 tagged as “Marvel Avengers Movie Universe.” “X-Men First Class” was listed as a favorite by 21 people, but as of that date there were only 4857 works on the AO3 tagged as being in that fandom, so “Avengers” was chosen to represent a large fandom.

“Teen Wolf” was mentioned as a favorite by 14 respondents, and as of that date there were 4875 works in the AO3 tagged as Teen Wolf. There were fandoms mentioned that had far smaller numbers of works in the AO3, but they also had only one or two respondents mentioning them, so Teen Wolf was chosen as a representative of a smaller fandom that still had enough responses to perhaps see suggestions of a trend.

For question 9, a follow-up asking those respondents who had used AO3’s “tag cloud” search if they were satisfied with the results, 13 Avengers fans responded, with two respondents, or 15 percent, saying “No” and 11 respondents, or 85 percent, saying “Yes.” Of the Teen Wolf fans, seven answered this question, with one respondent, or 14 percent, saying “No” and six respondents, or 86 percent, saying “Yes.”

Question 11 was a follow-up for those respondents who had said “Yes” to the previous question, asking if they had ever searched for a tag on the AO3 and been given a results page for a different tag. Question 11 asked if the new tag had the same meaning as the tag they had originally searched for. Of the Avengers fans, seven answered the question and 100 percent of them answered “Yes.” Of the Teen Wolf fans, four answered this question, with one respondent, or 25 percent, answering “No” and three respondents, or 75 percent, answering “Yes.”

Question 13 was a follow-up for those respondents who had said “Yes” to the previous question asking if they had ever searched the AO3 using the “fandoms” page, which is separated out into types of media. Question 13 asked those who had if they were satisfied with the results. Of Avengers fans, 17 responded, with two respondents, or 12 percent, saying “No,” and 15 respondents, or 88 percent, saying “Yes.” Of Teen Wolf fans, 13 responded to this question. 100 percent of them said “Yes.”

Question 15 was a follow-up for those respondents who had said “Yes” to the previous question asking if they had ever searched the AO3 using the “tag search” box. Those who had used this indicated on question 15 whether or not they were satisfied with the results. Of Avengers fans, 17 responded to this question, with six respondents, or 35 percent, saying “No” and 11 respondents, or 65 percent, saying “Yes.” Of Teen Wolf fans, 12 responded to this question, with 1 respondent, or 8 percent, saying “No” and 11 respondents, or 92 percent, saying “Yes.”

Question 17 was a follow-up to a question for those survey respondents who said they had used “advanced search” on the AO3; it asked whether they were satisfied with

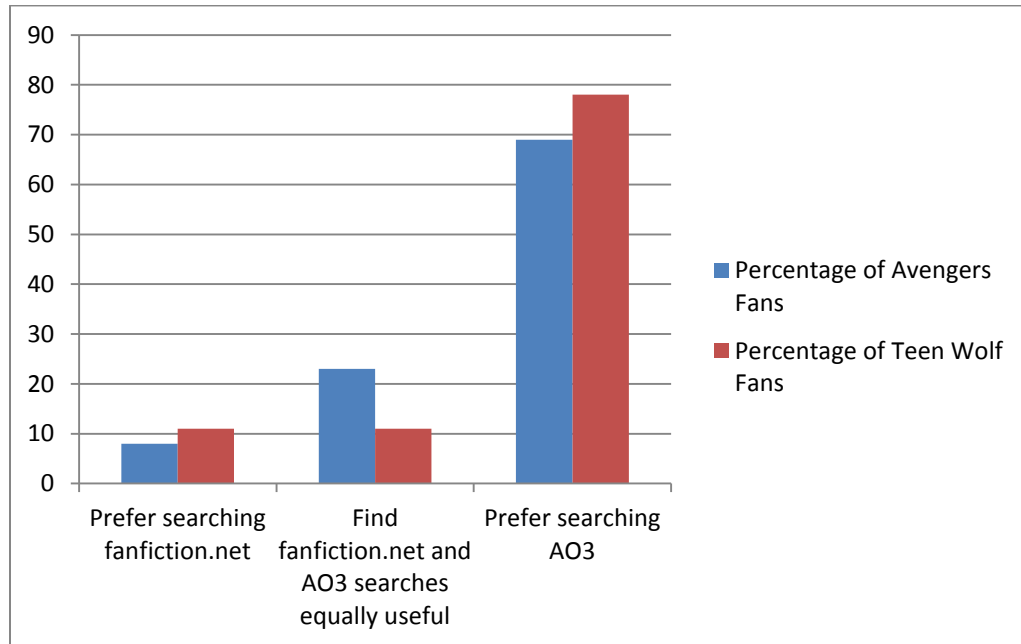
the results. Fifteen Avengers fans answered this question. Eight of these respondents, or 53 percent, answered “No” and seven of them, or 47 percent, answered “Yes.” Of Teen Wolf fans, 11 answered this question. Of these respondents, two of them, or 18 percent, answered “No” and nine of them, or 82 percent, answered “Yes.”

Question 21 was a follow-up for those survey respondents who said they had searched the AO3 using bookmarks, asking whether or not they were satisfied with the results. Ten Avengers fans answered this question, with three, or 30 percent, saying “No” and seven, or 70 percent, saying “Yes.” Six Teen Wolf fans answered, with three of those respondents, or 50 percent, saying “No” and three respondents, or 50 percent, saying “Yes.”

Favorite Fandom	Tag Cloud Search Satisfaction	Fandoms Page Search Satisfaction	Tag Search Box Satisfaction	Advanced Search Satisfaction	Bookmark Search Satisfaction
Avengers	85%	88%	65%	47%	70%
Teen Wolf	86%	100%	92%	82%	50%

Question 19 was a follow-up for those survey respondents who had said that they had searched for fanfiction on the site fanfiction.net. It asked those respondents whether they thought the fanfiction.net searching process was superior, thought AO3’s and fanfiction.net’s processes were equally useful, or thought the AO3’s process was superior. Thirteen Avengers fans answered this question. One respondent, or eight percent, preferred fanfiction.net; three respondents, or 23 percent, thought that AO3 and fanfiction.net were equally useful; and nine respondents, or 69 percent, thought that the AO3’s search process was more useful. Nine Teen Wolf fans answered this question.

One respondent, or 11 percent, preferred fanfiction.net; one respondent, or 11 percent, thought that AO3 and fanfiction.net were equally useful; and seven respondents, or 78 percent, thought that AO3 was more useful.



Discussion

There were 132 respondents to this study, with 116 completed responses. As the study was exploratory in nature, sampling was conducted to reach widely without an attempt at a representative or adequate sample that is required for statistical analysis, as publicity for the study was passed along in the internet version of “word of mouth.”

The overarching research question of the study was “How do users searching the Archive of Our Own for fiction feel that the site’s particular blend of open social tagging plus some behind-the-scenes vocabulary control plus hierarchical linking serves them in their searching?” The current study was intended to add to the literature of social tagging, by exploring the practice on a site that has a hybrid of free tagging and some behind-the-scenes authority control and hierarchical linking, and by doing this exploring through qualitative questions supplemented by quantitative ones. This allowed the site’s users to more fully describe their experiences with the online repository, the Archive of Our Own, than would a study made up of purely quantitative questions. Respondents were asked about their overall experiences with searching the site, their favorite methods of searching, and suggestions for improving the searching environment. Respondents were also asked some yes/no questions about whether they had searched the site in particular ways, and whether they were satisfied with the search results. Additionally, they were asked for some information about themselves (age, experience with volunteering for the AO3, experience with library science topics, first language, and primary fandom) for the purpose of seeing if these “groupings” affected how they felt about the Archive. They were also asked several open-ended questions about their experiences searching for fiction in the Archive.

Respondents were asked about whether they had used the tag cloud functionality, and if they had, how well it worked for them. Slightly less than half of the respondents had used the Archive's "tag cloud" feature for searching, and a large majority—83 percent--of those who had used it were satisfied with the results. When the answers from respondents in the larger "Avengers" fandom and the answers from respondents in the smaller "Teen Wolf" fandom were looked at separately, the percentages for finding the tag cloud useful were approximately the same as in the whole survey. Respondents who listed English as a first language approved of the tag cloud 83 percent of the time and respondents who had listed other languages approved of the tag cloud 75 percent of the time. When cross-tabulated against numbers of searches performed in the Archive, approval of the tag cloud function seemed to rise with amount of use. The approval rate was high in all age categories when cross-tabulated against ages of respondents. The tag cloud function was approved of much more highly by those who had never volunteered for the Archive, or done volunteer tag wrangling, than by those who actually had volunteered; but the number of volunteers responding was quite small—three tag wranglers and eight general volunteers. When library science experience, both professional and educational, was cross-checked, both the "experienced" and the "non-experienced" groups highly approved of the tag cloud functionality. Tag clouds were mentioned as a favorite by eight percent of the respondents to a question asking for favorite search methods used on the AO3.

The survey also explored how respondents felt that the authority control system worked for them, by asking about searches for one tag that gave them a results page for another. Out of all the respondents who had had this happen in searches, 70 percent of

them thought that the results page they got was for a tag with the same meaning as the one they had originally searched for. When the respondents to this question were broken out into those who had given English as their first language and those who had given another language, a majority of “English” respondents said the tag they got had the same meaning as the one they searched for, and all of the “non-English” respondents said that the tag had the same meaning. When respondents were broken out into those in a large fandom and those in a smaller one, all of the larger-fandom fans thought the tag they got had the same meaning as the one they searched for and 75 percent of the smaller-fandom fans did.

Eighty-eight percent of the respondents had searched for fanfiction starting with the “fandom” page that is separated out into types of media—television shows, books, etc. The fandom tag is a required one that gives a list to choose from, or requires wrangler approval if the fandom is a new one for the Archive. Of all those who had used it, 85 percent were happy with the results. Those who had searched for fanfiction ten to twenty times, or more than twenty times, were more likely to approve of this search method with 86 percent considering it useful, than those who had searched less than ten times, whose approval rating was only 50 percent. (There were only two respondents to this question who had searched fewer than 10 times, however.) When respondents were broken out by age ranges, all the responding groups still approved of fandom search to a large percentage, with 60 percent for the 51-to-60 year olds being the lowest. When they were separated out by volunteer status, both general volunteering with the AO3 and tag wrangling specifically, all groups, both volunteer and non-, still approved of fandom searches by a majority. When groups who had educational or professional experience in

library science were separated out, all the groups, both experienced and not, still highly approved of fandom searching. Respondents in a large fandom and in a smaller one both had high majority of approval for fandom searching. Both native English speakers and native speakers of other languages also found fandom searching useful by a high percentage. Starting with the “fandoms” page was a clear favorite when survey respondents were asked to list their favorite method of searching.

Respondents were asked about searching by “bookmarks” created by other users. Just under half of the total respondents to the question had tried this method, and of those who had tried it, 65 percent were satisfied with the results. High numbers of satisfaction with bookmarks seemed to hold true for all age groups responding, with the lowest marking being in the “under 20” age group of four people. This group was split evenly between two people satisfied with the results and two not. When the responses to this question were crosschecked with respondents who had volunteered for the AO3, and who had specifically volunteered as tag wranglers, bookmark search was considered more useful by those who had not volunteered. When those who had educational experience in library science were separated out, both those with experience and those without fell into the same satisfaction range with bookmarks, 60 to 65 percent. But when those who had professional experience in library science were separated out, those with experience were much less likely to be satisfied with searching by bookmark; only 33 percent were, as opposed to 71 percent satisfaction in those who did not have a professional library science background. When a sample of the respondents who had listed English as a first language were compared with those who had listed another language as first, 71 percent from the “English” sample were satisfied and 56 percent of the “non-English”

respondents were. When bookmark searching was cross-tabulated with fandom size, 70 percent of the respondents in a larger fandom were satisfied with it and 50 percent of those in a smaller fandom were. For the question asking respondents' favorite search method, six percent of the respondents chose bookmarks, and bookmarks were mentioned as an alternate method by two of the four people who gave an answer to the question of what they try if their favorite method does not work.

The research subquestion about how well respondents liked the new functionality allowing them to see the relationships and structure of tags, and about their reactions to their understanding of the tag structure in general, garnered 102 responses, with just over 50 percent coded as positive and 30 percent neutral or mixed.

When respondents were asked to compare the usefulness of the search structure on the AO3 as opposed to that of fanfiction.net, 68 percent of the 101 total people who answered this question found the AO3's searching process more useful than that of fanfiction.net. When responses were broken out according to how many searches the respondents had made on the AO3, the AO3's searching process was strongly preferred by those who had done more searches. But of those few (three) respondents who had done fewer than 10 searches, one preferred fanfiction.net and two thought the two sites were tied in usefulness, with none preferring the AO3. When this comparison was crosstabulated with respondent's age, preference for the AO3's searching process went steadily downward with rising age, going from 75 percent of those aged 20 or under down to 34 percent of those aged 51 to 60. When broken out into AO3 volunteers and non-volunteers, both groups strongly preferred the AO3, as did both groups of tag wranglers and non-tag-wranglers. Both the group of respondents with library science

education and the group without strongly preferred the AO3, as did both respondents with professional library science experience and respondents without. Quite a few comparative references to fanfiction.net came up in the responses to “Describe your overall level of satisfaction with searching in the Archive of Our Own.” It was mentioned nine times, or in nine percent of the responses, and of those comparisons the AO3 was clearly preferred in six of them.

The most popular currently available search method in the quantitative section proved to be starting with the “fandoms” page and narrowing from there—86 respondents were satisfied with the results of this, which made up 86 percent of the respondents who had tried that method. This method would also prove to be the most popular of the currently available when people were asked to list their favorite search method in a quantitative question. The least popular were advanced search and bookmark search at 69% satisfaction, although quite a few more people had tried advanced search than had tried bookmark search—90 people as opposed to 55 people.

Each search method looked at was successful for a majority of the respondents who had tried it, and this largely held true even when the respondents were broken out into special groups, suggesting that the methods usually hold up well even for respondents who differ greatly in age, experience of the Archive or first language, among other things. However, when number of times a respondent has searched in the AO3 was cross-checked with the respondent’s level of satisfaction with differing levels of search, there was a rough trend toward higher levels of satisfaction with higher instances of usage.

Also, when given the opportunity to compare the Archive with a repository with a much more bare-bones search system, fanfiction.net, most of the respondents preferred the Archive's system. That seems to suggest that the Archive's particular blend of freeform and more regimented tagging works well for searches. Although fandom's historical issues with fanfiction.net were not mentioned in the data generated by this survey, it is possible that some of this preference may arise from some non-search-related decisions made by fanfiction.net, such as the refusal to allow explicit fanfiction in the repository and the deletion without warning of explicit works that have been added anyway, along with all their accrued comments. Such decisions have resulted in general dislike for the site in some fans. Higher usage numbers seem to correlate roughly with holding the AO3 in higher esteem than fanfiction.net. Of course this could also mean that repeated use of the AO3 made the respondents get better at it with practice, or that those who really hated the AO3 in comparison to fanfiction.net stopped using it and thus did not transition into the "more numerous usages" groups, or both.

Many other themes arose in the respondents' answers, especially in the longer and more complex responses. Many people were eagerly awaiting the return of the tag filtering sidebar, which had been taken down because it was overloading the systems. Its return had been delayed for some months at the time of the survey. Its routine of choosing a fandom and then being able to further filter by date updated, rating, type (for instance "gen" with no romantic pairing, "m/f" with a male/female pairing, etc.) and other categories seemed to appeal to the searching strategies of many respondents. This option has now returned, with updates and improvements, after the ending of the survey.

Another theme that arose in the elaborate responses is that many respondents seem to be as focused on what they are NOT looking for as on what they ARE looking for; that is, they would like to be able to frame their search at least partially around exclusion. This function is already somewhat supported in some of the Archive's required tag fields which draw from a set vocabulary list. Authors are required to give a rating—general audiences, teen and up audiences, explicit or mature. They are also required to choose from a “warnings” list which includes: choose not to use archive warnings, graphic depictions of violence, major character death, no archive warnings apply, rape/non-con, and underage. The ratings and warnings are useable in the tag filtering sidebar, so it is already possible to do a search that excludes any fiction marked with “mature” and “character death.” But respondents really wanted further exclusionary possibilities. The most requested options were being able to figure out disliked pairings and crossovers, which mix characters from more than one source material. This partly seemed to be a matter of efficiency and organization, of rapidly removing from the search results all the fanfiction that is not exactly the kind they are looking for. But it also seemed to be an exemplar of the level of passion that fans who are dedicated enough to read fanfiction feel about the source material and the stories; if they dislike a character or pairing, they *really* dislike it and don't even want to glance at a story featuring that person or romance. The filtering-out capabilities they're asking for are not just a way to narrow a search, but a way to put unacceptable-to-them stories in a personal mental “disapproved” file.

While the respondents were very interested in imposing their personal likes and dislikes on searching, they also expressed interest in knowing what other users of the site

liked. At the time of the survey this was possible to some degree with the use of the “bookmark” feature, which was asked about in the survey, and by ranking a story by “hits.” “Hits” merely indicate how many times a story was opened by an Archive user, and thus do not account for the fact that one user may have opened it multiple times if she was reading it bit by bit, or for the fact that a story might have a very promising title and summary and turn out to be awful; a story with a plethora of hits could be one that a lot of readers opened and no one could bear to finish. Bookmarks are also somewhat ambiguous in terms of expressing whether the bookmarker actually liked the story or not. It is possible to put “favorite” or “fantastic” or some other evaluative term on a bookmark, but it is also possible to use one of those terms such as “to read” which Kipp (2010) refers to as “time or task related” and which would be relevant to the bookmarker but not especially helpful to anyone else. It is also possible to put just a plain bookmark. A plain bookmark could not be safely assumed to be a compliment to the story marked, as an individual user may only bookmark things she hasn’t read yet. And some fans get a certain mocking enjoyment out of reading stories they consider egregiously bad, which could also be a meaning of a plain bookmark. Kudos are therefore a more useful evaluative system than bookmarks, and are much “rarer” than hits. (For instance, the story in Marvel Avengers Movie Universe fandom that has the most hits as of this writing has 160,168 of them, but only 4651 kudos.)

Some of the other major themes that emerged from the qualitative questions surprised this researcher with the depth to which respondents had thought about the tagging system. Admittedly, the survey was more likely to draw respondents who felt they had something to say and really wanted to say it, but it was still unexpected to see

some strong themes emerge which had not been mentioned in the questions and which the respondents were coming up with on their own. One of these was the “weighting” system; none of the respondents used that term, but several mentioned wanting to be able to determine what the “main” character or pairing was for a story. This is also interesting in that it is a way in which “thorough” tagging can be frustrating for some searchers. An author might be very careful to tag every character who appears even for one line of dialogue in an 100,000 word epic, and for every pairing that is even mentioned as background; and that might work out very well for a reader who is interested in reading every story with even the barest mention of a favorite character or romance. But it could be frustrating and amount to “tag fog” for a reader who wishes to read only stories focused on his favorites.

Another interesting point that respondents kept bringing up that was not specifically prompted for them by any of the questions was that of education in properly doing the “front end” of the process. Though they had only really been asked to think about the various search strategies provided, they mentally back-engineered through the process to theorize that some more rules, or at least guidelines, provided for the posting of tags. This researcher was reminded of the people in the Holley (2010) study of tagging in Australian newspaper archives; in which the users seemed desperate for some structure and vocabulary control, with the Australian Newspapers Digitisation Program members receiving many emails complaining of “tagging chaos” and requesting rules and guidelines. “Tumblr-style” tagging seems to be one of the chief things people hope to eliminate through front-end education. It is also possible that the loathing of these tags is less a reaction to any actual effects than a fandom culture clash of sorts. Every new

“platform” that comes along that attracts a lot of fannish users—LiveJournal, Dreamwidth, Twitter, and Tumblr, for instance—has a different, often unwritten “way that things are done” and people often seem to resent it when bits of one site’s culture pop up in another one.

Conclusions

The current online information glut calls for some sort of subject labeling to facilitate efficiency in searching, but the volume of information is well beyond a size that could ever be dealt with by information professionals. “Social tagging” is an approach to this problem that lets non-professionals attempt to organize online information via tagging, for their own and one another’s use.

But social tagging is a new and rapidly evolving field, and so no consensus has yet been reached on its overall usefulness, or on what best practices might be, partly because the websites that use social tagging are hugely varied in both their setup and their purposes. Some are huge and intended to work for a vast and heterogeneous group of users; some are niche sites with a small group of users who tend to have a homogenous interest base and vocabulary. It is unclear, even in small niche sites, how well social tagging works, or where the “balance point” might be between “freedom of tagging” for the tagger and preventing tag chaos that makes things difficult for someone attempting to search on a site.

The respondents for the current study were asked short-answer questions which allowed them to describe their overall experience with searching for fanfiction on the Archive. They were also asked to make suggestions for improvements in the user experience of Archive searching, and to discuss any issues with or thoughts about Archive searching that they had not been specifically asked about. They were also asked some yes/no questions about their use of various search methods, yes/no questions about their satisfactions with search methods used, and a ranking question comparing searching in the AO3 to searching in fanfiction.net. .

The overall research question for this study asked how users feel that the AO3's particular blend of open social tagging and some behind-the-scenes vocabulary control plus hierarchical linking serves them in their searching. And the results suggest that, at least for the users surveyed, the answer is "Pretty well." It is clear that of the participants in this study, most of them had tried a variety of search methods, and most of those who tried each method found it to be effective. This suggests that, for this group of users, the Archive's provision of several different search strategies provides a satisfying search environment, with other options to try if a first search attempt does not turn up anything to the user's liking. It also suggests that the Archive's behind the scenes vocabulary control is largely working for these users. But some of the things that respondents wished for as added search options—kudos search and filtering *out* certain tags—suggest that they are interested in improving two somewhat contrasting aspects of search; they want to both be able to filter and exclude results ever more personally and precisely, but also to more easily receive "advice" in the form of kudos from other users of the site.

Other conclusions are suggested by the data, particularly the more complex qualitative answers. For one, it is apparent that many of the respondents had spent more thought on the intricacies of searching than most site runners might assume. They had pondered it enough to come up with topics which had not been asked about in the survey, including tag weighting and front-end education on how to tag.

Both of these ideas involve the respondents being able to mentally back-engineer their search processes to come up with changes which they think might help in searches, but which in fact are on the "other end" of the process. These are both areas which would affect people who are posting stories and giving them tags to begin with. Both also

suggest that some of the users are somewhat uncomfortable with the level to which tagging in the Archive is free-form and “anything goes.”

While some tags are already given an intrinsic importance by being required, such as the rating, warning or fandom tag, there is apparent desire for the ability to see which tags out of a story’s multiple character or pairing tags are most important, in terms of being the chief focus of the story.

The wish for front-end education on how to tag stories to begin with seems to be bound up, not only with the wish for tag search to be more efficient, but with a sort of Internet culture clash. Many of the people expressing a desire for tagging training to be available seem to hope that it will discourage “Tumblr-style tagging.” This is a more jokey and less traditionally informative style of tagging; it would neither seem to fall within the traditional “aboutness” or “is-ness” style of subject tagging nor within the “affective” or “task-related” types of tagging mentioned in earlier literature. It is more like expansive author’s notes, sometimes combined with in-jokes. Seemingly, the wish for these types of tags to be discouraged in the AO3 by tagging education is culture-clash-related more than efficiency-related, because AO3 management has publicized that these tags do not actually gum up the works or slow searching down any.

Interestingly, since the survey was taken the Archive has in fact reactivated tag filtering and added the ability to sort by kudos, suggesting that the site runners agree with the survey conclusions on some things of importance to users. There has been, however, no mention of any plans to add weighting or more user education on tagging, but neither has been publicly ruled out. The Archive runners have replied in comments to requests to

disable or discourage highly free-form or “Tumblr-style” tagging, by explaining that these tags do not in fact “clog up” the search functions, as they are overall a very small part of the information on the site.

Limitations to the study would include that it was impossible to get a randomized pool of respondents. There were also limitations to the design in that, while the survey was designed to ask follow-up questions of all respondents who answered yes to certain questions, there was no way to ask individual follow-up questions, as would have been possible with individual interviews rather than an internet-based survey. Most of the short-answer replies were clear and seemed quite thorough, no doubt partially due to the fact that the respondents had an extensive character limit to work with, but for some few responses would have benefited from the opportunity to ask for explanation or expansion.

This study’s contributions to the field of social tagging research come largely from its qualitative component. The short answer questions not only allowed respondents to share their reactions to the system, as it existed, but to offer lengthy suggestions for improvement. Many of these suggestions might prove applicable to other sites and systems.

Suggestions for further study on the topic of tag usage for searching would include studies that provide for individual follow-up interviews, and of course studies that survey a larger number of people so to allow quantitative analysis for generalizability. It would also be interesting for a study to look more extensively at the relationship of the number of times searching a site to the rate of satisfaction with the searching process, and at the relationship of the age of a site user to the rate of satisfaction with different kinds of searches. Also a qualitative study that looked at a

site's searching process from the perspectives of both searchers and taggers would be useful; if the site in question had "tag wranglers" like the AO3, their perspective would be very interesting as well.

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Appendix--Survey

- 1) How many times have you searched for fanfiction in the Archive of Our Own?
 - Fewer than 10 times
 - 10 to 20 times
 - More than 20 times
- 2) Which category below includes your age?
 - 20 or under
 - 21 to 30
 - 31 to 40
 - 41 to 50
 - 51 to 60
 - 61 to 70
 - 71 to 80
 - 81 or over
- 3) What is your first language?
- 4) Have you ever volunteered in any capacity with the Archive of Our Own?
 - Yes
 - No
- 5) Have you ever done any volunteer “tag wrangling” with the Archive of Our Own?
 - Yes
 - No
 - Not sure
- 6) Do you have any educational background in information/library science?
 - Yes
 - No
- 7) Do you have any professional background in information/library science?
 - Yes
 - No
- 8) Have you ever used AO3’s “tag cloud” feature for searching?
 - Yes
 - No
- 9) *Were you satisfied with the results?
 - Yes
 - No
- 10) Have you ever searched for a tag on the AO3 and been given a results page for a different tag?
 - Yes
 - No

- 11) *Was the new tag a synonym for the tag you originally searched for?
Yes
No
- 12) Have you ever searched the AO3 using the “fandoms” page, which is separated out into types of media?
Yes
No
- 13) *Were you satisfied with the results?
Yes
No
- 14) Have you ever searched the AO3 using the tag search box?
Yes
No
- 15) *Were you satisfied with the results?
Yes
No
- 16) Have you ever used “advanced search” on the AO3?
Yes
No
- 17) *Were you satisfied with the results?
Yes
No
- 18) Have you ever searched for fanfiction on www.fanfiction.net?
Yes
No
- 19) *How would you compare the searching process on the AO3 to that of www.fanfiction.net?
I find the AO3’s searching process less useful than that of fanfiction.net
I find the AO3’s searching process equally as useful as that of fanfiction.net
I find the AO3’s searching process more useful than that of fanfiction.net
- 20) Have you ever searched the AO3 using bookmarks?
Yes
No
- 21) *Were you satisfied with the results?
Yes
No
- 22) Have you ever looked at the AO3’s Tag Display Page?
Yes
No

- 23) *Please comment on your overall view of the tag structure as shown on the Tag Display Page. Do you find the structure with its parent, child, meta, and sub tags clear or unclear, helpful or not helpful? Please give any other reactions to the structure as you understand it.
- 24) Do you have a current “favorite” fandom in the sense that you do more fanfiction searches on the AO3 for that fandom than for any other?
Yes
No
- 25) *What is it?
- 26) Describe your overall level of satisfaction with searching the Archive of Our Own. As a whole, do you find it useful or not, difficult or not, intuitive or not?
- 27) Do you have any particular frustrations with any of the search methods usable in the AO3? Please describe.
- 28) Do you have a favorite search method that you use on the AO3?
Yes
No
- 29) *What is it, and why is it your favorite? (It does not have to be one of the search methods already mentioned in the survey.)
- 30) If your favorite method does not give you the desired results, what do you do?
Try another search method
Give up
Other
- 31) Please describe your “other” response.
- 32) If you have any suggestions for improving tag-searching capability in the AO3, please describe.
- 33) If you have points about or issues with searching in the AO3 which have not been mentioned in this survey, what are they?

Note: Questions marked by an asterisk were visible only to respondents who had chosen the appropriate answer to the previous question.