Report of the ADS Users Group (ADSUG)
Nov 15-16, 2021

Overview and Review of Existing Priorities

The ADSUG congratulates the ADS team on the impressive breadth and depth of activities presented during the meeting, all of which were accomplished in the context of another challenging year of remote work and a variety of pandemic-induced stressors. The ADS remains a unique resource that is an enormous global catalyst for discovery and dissemination. We particularly thank ADS on behalf of the community for providing the NSF proposal collaborator feature!

The ADSUG acknowledges the substantial effort that has gone into developing API capabilities and documentation, and looks forward to the creative ways in which the community will now exploit this functionality. We are excited about the proposed “Record” feature, which will allow people to learn how to reproduce familiar search capabilities with the API. We also applaud the decision to document the ADS API with open standards like OpenAPI. This approach provides a highly readable (and interactive) entrypoint into the functionality of the API, and hopefully will reduce the maintenance overhead from previous documentation efforts.

There have been clear and substantial improvements in accessibility and responsiveness of the ADS system over the last year. Some user feedback collected by the committee (see Appendix) concerns this responsiveness, and it’s good to see that these issues that impacted the user community have been addressed. The improved functionality for small screens is also especially noteworthy. Work on accessibility should be continued as resources allow.

As the features of ADS continue to be enhanced, the need for clear and accessible documentation on how to use those systems becomes ever more critical. A number of users have requested an “ADS 101” tutorial section. The ADS Blog posts provide a very useful process for learning about these new features: it should be kept current as new features appear. Unfortunately, searching for instructions on how to achieve a particular goal (e.g., the NSF collaborator option mentioned above) is not as successful as searching ADS itself. Perhaps a richer set of keywords could be attached to these posts to make finding relevant information more efficient.

Good progress has been made on estimating the scope and associated costs of ADS’s proposed expansion. There is some uncertainty in the current plan, but much of that will become clearer when funding outcomes are known. See the dedicated section below for additional thoughts, questions and recommendations on expansion plans.

Legacy Components

The Classic back-office rewrite provides a substantial opportunity to add new capabilities in a more flexible way. Paying significant attention to the efficiency of the interaction of the new back-end system (response times of micro-services that will provide back-office API services) will be important. These systems also provide a great opportunity to be more cloud-compatible. The plan for an internal API appears to take into account this need, although the need for authentication

controls (if the API is exposed to the public) will be critical. Building the API with the expectation of public use will help ensure design works.

New data-model development is needed for the proposed ADS expansion, and should happen in tandem with the back-office API changes. There should be some attention to how the ADS data model is developed compared to data model standards in other similar services (e.g., PubMed), which ADS is already aware of.

Much of the back-office legacy pipeline code is written in Perl, with some elements in Python 2. The ADSUG recommends this be fully updated and that legacy dependencies be removed (except where dependencies based on publishers makes this impossible) as soon as possible.

Staffing

The ADSUG recognizes the great strides made in hiring this past year, despite the obvious challenges of remote work and COVID-19 restrictions.

The lack of a permanent Project Scientist and/or the plans to reduce uncertainty in this key position remain a critical concern of the ADSUG, as has been the case for several years. ADS should clarify to the community if the Project Scientist position is fully on hold as a result of the proposed expansion and restructuring, or what the plans are for staffing science positions moving forward. Because each node under the expansion will require a discipline scientist, we recommend pursuing the hire of at minimum one Astrophysics (covering also heliophysics and planetary science) discipline scientist who might serve as interim Project Scientist as soon as possible, even if the nature of the job may need to change in the coming years. While the Project Scientist may in the future need to function more broadly in terms of topic coverage, an astrophysicist still has the greatest understanding of what ADS currently is and how it might serve new disciplines in the future. Therefore, focusing on astrophysics for a science hire still makes sense based on that expertise.

Supporting the User Community

The ADS team is to be commended for their unwavering support to the user community. This is evidenced by the office-hour sessions, active Twitter stream, newsletters and blogs describing new features, and numerous other efforts. Despite this, getting information out to the existing community continues to be a challenge. Many users who request features do not know that ADS already supports the very feature that they request. This could be viewed as a good thing: ADS is acutely anticipating the needs of the community. The downside is that the community is unaware those needs are met.

The ADSUG suggests considering additional outlets to help communicate ADS's features and plans. One specific suggestion might be short (~1 minute) ADS YouTube videos (or GIFs) to highlight tips or to showcase one part of an under-used service or feature. These can be pushed out on social media, or highlighted in the newsletter one at a time. ADS should also consider a dedicated @AskADS Twitter helpdesk, plus integration of questions asked over Twitter, Messenger, WhatsApp, etc with the existing feedback system (as many airlines now offer).

As part of its planning for a proposed expansion, ADS should also strategize its evolving communication strategies both to the communities it currently serves and to those it plans to expand into (noting that very different strategies will be needed for these two cases, and indeed different strategies may be needed for different disciplines). There is a risk that communication may degrade as the ADS coverage expands. One suggestion to improve this situation might be "ADS Ambassadors", people who are specifically assigned to share ADS news at major universities, organizations, institutions, or geographical areas. If ADS expands to new disciplines, then some kind of Ambassador-like role could be critical for initially spreading the word about ADS. Indeed, this idea could be tied to the marketing plan for the ADS expansion and funded in this way, since it may take a considerable fraction of (or a whole) FTE to coordinate these efforts as ADS expands.

The "search score" is proving to be useful, and quickly finds top results of relevance. However, we note that many users don't realize that this is available or that the default is still by date. The ADS team may want to consider ways to highlight the score option, especially when new scoring systems are released.

The new collaborator feature streamlines a painstaking component of NSF grant proposals, and this feature represents just one example where ADS continues to respond to and support their community. After ADSUG solicited feedback from the community, some common feature requests were identified. A full list of bug reports and specific feature requests is tabled as an appendix; what follows are three common feature requests that are likely to benefit the community at large:

- A "suggest referee/reviewer" feature in ADS would benefit all scientists. The requisite logic is similar to what has already been developed for the collaborator feature (e.g., networks of authors over some time period, with institute and co-authorship filtering).

- A simple way to generate a printable list of publications, with a small number of very basic formatting options, would benefit hiring search committees and grant applications. Specific formatting rules do not apply to many of these settings, and the existing mechanism (to print the HTML page) is often suitable.

- The final common feature request is a collection of minor requests to improve UI functionality, or to better highlight the existing functionality. The improvements to the UI in recent years are remarkable, but ongoing improvements would help users learn about the search options available. For example, more use of the "?" pop-up buttons, tab-completion suggestions, or links to full lists of options that are either searchable or retrievable (these are not the same) would help many users recognise the full features available in ADS. These UI improvements will benefit new users (from other disciplines) who will begin to use the expanded ADS. And lastly, as ADS expands into other fields, better filtering of non-relevant journals would improve search results for all users. For example, many physics journals could be grouped since areas are more or less relevant to a particular search (nuclear physics, particle physics, etc).

The work to normalize author affiliations is commendable, and shows excellent promise to benefit the broader community. It is good to see that the data model for affiliations is already linked to the Research Organisation Registry (ROR). The ADSUG suggests that ADS consider options for users to provide corrections or updates to the affiliations service. If there are plans to update the affiliations data model (e.g., to change the parent/child model), then having a portal for users to submit updates or corrections could wait until that data model is updated. It is likely that there are a

few key users of ADS who might be motivated to correct many affiliations, and some scientists will likely be motivated to ensure their own affiliations are correctly parsed by ADS. The mechanism to update affiliations should be strongly tied to the ROR (or to other authoritative institutional identifiers) to automate this process as ADS expands, and to help market the existence of those registries.

Accessibility and Usability

The UX team has done an excellent job in directly addressing accessibility and usability concerns from the past year, especially in terms of fixing bugs and creating a more mobile-friendly experience. It is also reassuring to see other, more proactive improvements to the user experience, like the addition of the “dark mode” option.

As noted above, one key issue with usability is that many users are unaware of large parts of the feature set. This could be addressed via an “ADS 101” page or (video) tutorials, for example. Ideally these solutions would be highly visible (e.g., rotating tips on homepage) and be accompanied by outreach at venues like AAS, blogs, newsletters, etc. Worked examples of how to use ADS for more than simple searches are always welcome additions. For example, a blog entry or tutorial on how to do a non-conflicted similarity search for finding reviewers/referees (see above) would be extremely useful, while examples of how to do institutional assessments would be valuable for the many organizations without librarian support.

It is clear that the feedback form has had some glitches and needs attention, both in aesthetics and actual operability. It needs to be made much easier and quicker to use. Consider alternatives to reCAPTCHA, which may also prevent a subset of international users from submitting feedback. If reliable feedback collection continues to be a problem, consider a third-party tool that provides feedback interfaces such as Jira Service Management.

Data privacy is an ongoing concern among members of the community. One question that has directly been raised is if/whether ADS’s use of Google Analytics is guaranteeing protection of user private data, and is Google able to mine that data? We recommend that any use of analytics packages is indicated in the ADS privacy policy and that this document is reviewed for accuracy on a periodic basis.

Enhancements and Improvements to Current Capabilities

The current capabilities of ADS are serving the community well. Some additional capabilities could enhance the user experience.

The proposed revision of the data model needs to be carefully considered if it is to support both future expansion and current functions. Particular issues of focus are developing a data model that integrates well with existing models used by partner facilities, and that can allow uniform searches by users even when facing disparate keywords, vocabularies, facilities/instrument tags, etc., applied by publishers and authors. This may require some aggregation/translation as has been done for “inst” vs “affiliation”.

A rework of workflow for pipelines (more modular with restful communication between segments rather than filesystem access layer) is a great step to having a more flexibly maintainable system. The concept of "eating your own dog food" could be used here where the User Interface as deployed by ADS relies solely on the exposed API that all users have access to. This could be extended such that the tools that ADS uses to harvest and add meta-data to collection also only uses the exposed APIs. This would help ensure that the API provides the full functions needed to operate and use ADS, and that changes to the API that break the capacity to run ADS are rapidly exposed.

The AstroBERT pilot has promise. However, continual attention should be paid to the rapid development of other tools in the broader space of natural language processing, as it may be that an internal project at ADS could be outstripped and replaced by external tools. The project should also be very clear on its goals and scope, as this is an area where it is easy to set ambitious goals that may not be optimal in a cost-benefit analysis or driven by user demand. Work in this area should keep other disciplines in mind if it is to be expanded to other fields as part of the NASA proposal.

As noted above, there is clear community demand for simple export / print options, either optimized for CVs or for generating a readable list of publications not in a customized format. Common needs for the list might be: highlighting of primary author name; including citation counts per paper; selecting chronological or reverse chronological order, etc. It may be possible to have a straightforward UI based on selecting elements and their order for the output.

Flexible spelling on name searches is very much needed.

The AstroGen (astronomy genealogy) project is valuable. It could potentially be integrated with the parallel effort to comprehensively include theses in ADS, whether this is done by linking to local institutional repositories for theses or using a Google Scholar search for them. It should be noted that the Mathematical Genealogy Project and the Academic Family Tree already include much of physics and astronomy, and it may be worth aligning with these efforts.

Please continue to be mindful of keeping the excellent documentation of OpenAPI up to date and also watching for backwards compatibility as new options are implemented. Some systems (e.g., swagger+assertable) provide mechanisms to allow OpenAPI documents to be used in a continuous integration (CI) pipeline.

It would be good to keep a public page of known shortcomings of content coverage, and information about possible efforts to fill these gaps. Some examples that were raised in user comments were missing Central Bureau Electronic Telegrams (CBETs) and lack of thesis/dissertation results from smaller schools.

Expansion

ADS has put careful thought into planning and presenting the expansion of their services to include astrophysics, planetary sciences, heliophysics, earth sciences, and biophysics. This will include a doubling of the staff and a substantial re-organization of the management structure of ADS. The

ADSUG recommends that (1) ADS prioritize maintaining its excellent quality of service to the astrophysics community while expanding into additional disciplines, and (2) that ADS engage in a thought-out branding / marketing strategy to communicate the expansion to the various SMD communities.

While we recognize that the proposed expansion of ADS into other NASA SMD disciplines represents an exciting new capability for the scientific community, we want to ensure that existing capabilities in astrophysics are not lost or compromised. Some UI changes may be necessary to support the new incoming disciplines; a single unified interface would adversely affect efficient searches in discipline-specific use cases. The ADS should take care to preserve its current quality product for astrophysics, and to reassure the astrophysics community that its needs will not be neglected as newer communities are added to the fold.

Another risk is that one or a few dominant communities may require so much effort that smaller communities' needs would be overlooked. Assuring continued attention and balance among the now-broader set of ADS user communities should be supported by mechanisms to monitor whether inequalities are occurring, and developing an appropriate strategy to mitigate such inequalities should they be observed.

Branding and awareness of the ADS expansion will be essential to a successful rollout. Consider starting with branding and identity work as early as possible, building an associated communications plan and keeping users in the loop. A subset of users will be extremely upset with even the smallest changes to what's been familiar.

Branding and outreach need to be carefully managed individually for each node, and measures of success need to be defined relative to the fraction of literature ingested and the size of each node community. To this end, a current snapshot of those metrics before the expansion (e.g., starting with respect to the ongoing heliophysics and planetary science expansion) will allow quantified assessment of the effectiveness of expansion efforts.

ADS should plan ahead for what feedback it will seek from communities before it expands. Different communities will likely have different needs, and early knowledge of those divergences would help guide back-end and UI development. ADS should consider what new capabilities will be competitive with standard practices in the augmented subfield (i.e., if you're not offering something better than Google Scholar, the user base may not come).

The ADSUG recommends that an outside entity (in addition to ADS who authored it) evaluate the proposed organizational chart for further feedback, currently with centralized technology and administrative services in the center and discipline specific nodes on the outside. A misstep or lost opportunity for further efficiencies here will be hard to undo later. As an example, the Principal Investigator and Project Manager should work in a tight partnership with some shared duties around budgeting. Project Scientists for each discipline will be unique positions and difficult to hire,

requiring people with hands-on research experience in their respective field(s), a strong networking and outreach background, proven team leadership capabilities, and some project management experience. The Project Manager role appears to have a fair bit of authority for decision making and direction with respect to development and operations, but the balance between the Project Scientist(s) demands vs. the Project Manager's determination of what is possible and cost effective with regards to the overall product are not clear. The various nodes may have disproportionate voices in the discussion: astronomers and astrophysicists may feel they have strong voices since ADS started as their service and was built on their feedback. The Physics community (and future Earth Sciences community) is enormous and would deserve some outsized voice.

As noted earlier, ADS needs to make it clear that the Astrophysics Project Scientist position is on hold as restructuring takes place. One of the ADSUG's initial concerns in past meetings was the lack of progress on hiring a Project Scientist. In the new structure, the ADSUG recommends that NASA fund research time for each of the discipline scientists (astrophysics, planetary science, heliophysics, earth sciences, biophysics). ADS should specify to NASA whether they imagine the Project Scientist/Discipline Scientist positions to be long-term (permanent) positions, or rotating/visiting/secondary roles like what NSF uses.

Modifying or expanding existing roles may mean that incumbent ADS staff choose to look elsewhere, if the roles and skills they are being asked to fill change significantly as services become more centralized and interdisciplinary. ADS management has done an excellent job of remaining transparent and involving existing staff in the expansion proposal and should continue to involve incumbent staff so that future expectations are known, shared, and negotiated.

Operations are a critical component for service oriented systems (which ADS is evolving into) and you may consider expanding the top level of the organization chart to include Project Scientist, Project Manager and Operations.

If interdisciplinary potential is one of the core foci/purposes for proposing the expansion, ADS will need to consider how to build a culture of communication and ensure that an expanded team interacts in a highly distributed environment, even after the COVID-19 pandemic has subsided. Ensuring a team of less than 20, many of whom share a similar academic background in astronomy and astrophysics, are working towards a common goal and across closely related disciplines and audiences is significantly different than wrangling a team of 40+ who are responsible for meeting the needs of divergent and highly specialized audiences, literature, and research products. The organizational chart warrants special attention to avoid siloing individuals exclusively within their subject areas, even in the case of node specialists.

On a more practical note, ADS will need to work with CfA and SAO to understand their model for the "new normal" and hybrid work environments and communicate those constraints to NASA. How will a 40-person expanded ADS team be accommodated at CfA, where there is presumably limited office space? How will experts in other fields feel about working at an astronomical institution with no links to their communities?

Continued options for remote work (for US citizens, per the current constraints) may be an option to allow node specialists to remain embedded in their research environments and among their research communities/organizations, while working 100% in the service of ADS.

The ADSUG feels that the time scale for the proposed restructuring is aggressive, and that ADS should be allowed more time to carry out a phased restructuring. In the first three years, official content curators and Project Scientists could be assigned for each of the existing astrophysics, planetary science, and heliophysics disciplines, along with marketing to the related communities. After proving the efficacy of this model, it could be expanded to include earth sciences (year 4) and biophysics (year 5).

NASA should clarify how ADS will be managed by NASA going forward. Historically, NASA Astrophysics has evaluated and funded ADS. But given that the scope of ADS will cover all of SMD, will this change? Clarity is needed to understand both how success will be defined and the timescales on which plans can be adjusted.

ADS and NASA should consider how community oversight will need to evolve during and after the expansion. An ADSUG composed of ~8 people will likely not have the breadth required for an expanded ADS, and two half-days meetings may be insufficient to cover changes. What sort of NASA oversight will there be, and should this be unrelated to ADSUG or linked to it?

Given that the push to support cross-SMD interdisciplinary science is coming from NASA, how should ADS prioritize this goal against community-driven priorities? The ADSUG recommends that this top-down interdisciplinary focus should not undermine each discipline's ability to use ADS tools for focused research. One should not underestimate the development required to ensure users in each discipline can work exclusively within their content area or expand to discover and use interdisciplinary content at will, and only when needed.

Conclusions

While the big changes being mooted for ADS won't fully manifest in the next 12 months, this will be a critical period for planning and designing the path forward. The ADS team will need to simultaneously maintain their core services and development work, sustain the morale and focus of their existing staff, and also chart a path toward creating essentially an entirely new organisation. The ADSUG looks forward to supporting and advising the ADS on this, but also emphasizes the need for broader external input both on reorganization and on discipline-specific issues. The ADS has an outstanding track record of community consultation, design and delivery, and we look forward to what they can accomplish with more funding and an expanded mandate.

Appendix: Full Wishlist of Community-Contributed Future Items

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A (simple) way to generate a PDF of an ADS library, e.g. for job and grant applications.
This functionality might already exist and ideally for jobs/grants where this is needed we could link to a library but that doesn't always seem possible.

"ADS 101" for newbies would be appreciated, with suggestions how to start, examples of how it is used and most common uses.

Have CBETs appear more consistently. It would be nice for them to be more consistently available since it makes it hard to look up comet discovery circumstances for example, which are basically always announced via CBET.

Better inclusion of Thesis/Dissertations, can find from big programs, but not smaller schools like mine (e.g.,TCU).

Clear mechanism to fix broken links to arXiv papers. Perhaps community driven notification system.

An "AskADS" Twitter or FB account please! Could provide Just-in-time training incl. advanced features were a seamless part of the UI somehow. Not a 10-min tutorial, 10 seconds here and there.

The default astro collection includes a bunch of planetary/geo journals that can overwhelm searches. Would be nice to be able to have a setting that is astro without these

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Maintaining/Maximizing cross-platform capability -- e.g. tying into NED, SIMBAD, MAST, Software Repositories, etc. As a NED Users Committee member this is something that we value and depend on and want to see continue!

Bulk claiming of papers (linked to ORCiD) would be very helpful, also need some feedback on what to do when claim fails.

More compete documentation of how to execute some interesting queries. eg. similar(bibcode:2010ApJ...713.1008S) and some way to bring large text searches back when text content isn’t already in ADS.

How does one report when meta-data is missing: Some books I got citations from ADS missed the Publisher.
Clear link to report issues with author name searches: Users with a middle name not getting all publications returned.

What I’d like to be able to do is to search by name but then refine by ORCID, e.g. search for Daniel Price but then specify which one I mean by clicking on one of the several ORCIDs that match this name. Is this possible? [in one automated click]

The new ADS interface is slow. These 3-5sec to load a page don't look like much when encountered once, but when doing many searches they add up and cause a lot of frustration. The old interface was not fancy, but returned results with no noticeable delay.

Some minor 'nice to have' feature requests:
- Bring back the user setting that defaults the classic form to refereed papers only
- Split the 'show side bars' user setting so I can turn off the left or right bar separately (not both together)
- In the left side bar tick boxes, make one click 'limit to', two clicks 'exclude' and three clicks to cancel. No need for the additional popup, which just increases the number of clicks required.
- Fix the CAPTCHA on the feedback forms. It rarely works and resets the form.

Every time I've tried to submit a correction it didn't work (CAPTCHA related?). Also, the form should clarify if User Comments are an explanation for the person reviewing the correction or are comments visible on the abstract.

Please allow
- more than 500 entries per page
- option to add a note for an entry,
- search through an entire library, instead of just current page.

Automatic detection of strings that are object names to do object based search and have full aliasing, particularly for solar system objects. Eg. Search for “2003 EL61” gives 99 results and “Haumea” (same objects) gives 255.

Really small suggestion: the "Export Citation" page on an article could have a very brief note about abbreviations that links to the "Journal Macros" help page. Have definitely been tripped up by this when writing short non-journal documents.

Sometimes I don't know what the bibstem of the journal is, but I have the full name or an abbreviation. This is mostly the case for older articles. Can you make the full journal name a search term? Or give us a way to search for the bibstem? Search for bibstem without knowing how journal name starts?

I have always wanted to export in a custom format where it also indicates which number of author you are (and maybe the number of total authors). With large collaborations this gives perspective. Function that allows high-lighting / bolding of a particular name in an author list?

Shortcut for searching for first-authors with hyphens needs quotes

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Clicking on a name in an entry doesn't respect the default (astronomy only) search setting

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This probably involves many more players than just ADS, but I'd love to see progress on baking multi-author citations (e.g. Author A & Author B et al 2020) into our citation tools. a lot of amazing papers have more than one lead within a collaboration

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One feature that has long been missing is the possibility of extracting citations that are completely independent of the cited papers, meaning that there is not a single co-author present both in the cited and the citing paper. Certain countries and funding agencies expect these kind of scientometric data in addition to the usual number of papers, total number of citations and indices being their derivatives.

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oh, and one thing that would be nice is if one does a name search clicked from a paper it does something smarter than just a literal name search. There have to be some pretty simple graph / ML approaches to find better matches.
Allowing for a "fuzzy" name search. Now you sometimes sort of remember the name, but don't quite remember the spelling (Genzler, gensler,...). Google does give things that are close enough in spelling.

Shared libraries are awesome! Allowing text or markdown set of annotations like a paragraph about a paper would be really useful to make some notes about what's in a paper.

The new UI does lazy loads - if I click to open 5 different papers in new tabs, when I get to the tabs the load query hasn't executed yet. That may be by design, but it's a bit annoying to wait for something to load when I thought that had already been done in the background. Was query volume really a big performance issue before?
(And if it's not by design, it's a problem!)

ADS is of course excellent, so the following comments are only minor.

The library management tools are a bit basic – they all involve creating a new library instead of in-situ modifications.

There are some basic counting bugs around the numbers of papers in a library. I can't recall details, but sometimes wrong by 1 paper which is a bit annoying when trying to ensure library completeness.

ADS sometimes runs quite slowly for reasons that are unknown to me. It does fantastically quick searches for certain things but for some reason, operations on exported libraries ("View library in search results page") just don't proceed. Metric and network tools are also very slow. Weekend data ingests seem to slow the system down.

Perhaps it would be useful to have more information about down time, dead time, don't try in now time, and links to other ADS mirrors in such cases?

Ingest of address data in ADS can be a bit shoddy, particularly around multiple bylines. Despite being a high-IF journal, PASA seems to suffer the most (as it does with NED data ingests). Affiliation IDs show promise but not yet complete for addresses that I care about. ORCID implementation would help, although I'm not sure ADS can do much about that.

Definition of "Astronomy" papers is a bit indistinct. It's nice to have the non-astro collection, but also nice to have a better distinction between astronomy and physics/geology etc where appropriate.

Finally, the APIs are useful but not so well documented and have annoying transaction limits. They also don't give flexible access to citation data, which is limited to calendar years.

I recently went through a case where the journal complained about some of the abbreviations (or lack thereof) for some journals in my bibliography, which was generated using bibtex exported from ads (+the journal style file aastex631.cls). An example is this one: https://ui.adsabs.harvard.edu/abs/1960Obs....80..191H/abstract. The bibtex has "journal = {The Observatory}" but in the citation the journal wants this abbreviated as "Obs". Most of the journals

use commands in the bibtex (like \mnras) which are defined in the style file. I'm not sure if this is the responsibility of ads or of the journal here? (Maybe both?) But in my case there were quite a few that the editor insisted I fix (mostly older papers and more obscure journals). I had to do it manually, which was quite annoying!

It's also difficult to search for papers about objects whose name is given to a whole class. I tried it once for gamma Doradus, for example. Probably not a major point, but the comment about searching common author names reminded me

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Am I the only one to miss the abbreviated year search capability? When I enter a year of "0" or "00", I really do mean 2000, and not 1900. Most searches are weighted towards recent years, IMHO.

Have it not hang on load 20% of the time. Bring back last and only author functionality.

An export option to quickly and painlessly produce a good looking publication list for job and grant applications, please!

Just imagine how many human hours this would save ….

Here's wishlist of features
- separating refereed and non refereed and arxiv postings (which are often submitted).
- anti chronological order
- numbered chronologically.
- option to bold face authors name
- showing first ~ 5 author only
- export directly as a good looking pdf
- optional export in plain latex and for after on screen text (allowing someone to paste it in word docs or templates if needed required).
- option to show number of citations in brackets
- option to directly include clickable urls to the ads entry

An (i)Phone app to access the website more easily from a phone. (Although the mobile version of the website isn't too bad).

How about a "potential peer reviewer search" where you enter a list of authors, and optionally keywords, and a timeframe, and ADS spits out a list of people that have written similar articles that have not co-authored with that author list in a fixed timeframe.

"I have only one small suggestion for the ADS UG. Currently, if you set a custom export format for references to be in the form "LastnameYear" (e.g. "Johnson2000"), all references by Johnson in the year 2000 within a custom library will export with the same latex reference handle of Johnson2000. If I have three articles in a library by Johnson from 2000, I have to manually, and in the correct chronological order, modify these to "Johnson2000a, Johnson2000b, Johnson2000c", etc. As this is a custom format for exporting references, I'm not sure if it is possible to automate this, as the reference formatter would have to check your whole library. However, it's my one minor suggestion."

1a. My biggest complaint is that you get a LOT of non-astronomy references, even when you limit the search to astronomy journals. Example:

Search on abstract text, “M8.” It is smart enough to understand that is the Lagoon Nebula (good), but then it searches for all instances of “lagoon”, which is a common word in geophysics papers. When I do this right now, limited to ‘astronomy’ under collections, and ‘refereed’ articles, I get 790 hits. #1 is MNRAS. #2 is GeoRL about permafrost degradation. #3 is a journal called “ExA” with a title involving temperate exoplanets. #4 is legit AJ. #5 is also legit A&A. #6 is MNRAS and #7 is APJ and #8 is A&A; all also ok. #9 is maybe irrelevant (seems to be on blackholes?) #10 is back to GeoRL about fossil reefs in the holocene. You see where I am going here. Out of the first 10, 30% are clearly not what I am looking for at all. Scanning down the list, I get stuff about the desert in Chile, salinity in estuarine systems, tsunamis, extremophiles, and that’s just from the next 10. Yes, I can limit the search to just be the major astrophysics journals (AND bibstem:(ApJ OR AJ OR ApJS OR ApJL OR AJS OR MNRAS OR A&A OR ARA&A OR PASP OR PASJ OR Natur OR Ap&SS OR Sci)) but why is the default astronomy collection including geophysics journals?

1b. My second complaint is more of a rant-y request. What do we have to do to convince NASA HQ that ADS is the best archive for NASA astrophysics papers and we shouldn’t have to also submit articles to whatever various biology/medicine archives they keep bringing up? If that isn’t going to go anywhere, can we get money to hire someone to suck everything out of ADS and automatically put it in whatever weirdo place HQ wants? That is guaranteed to be more efficient than asking authors to do this.

2a. My one comment is it is far easier to find papers using Google than using the ADS search interface. I dont know why that is but they
may want to consider using the google search algorithm at their backend.

2b. For example, if one searches for list of binary supermassive black holes on ADS none
of the top 50 show you even one candidate. Do the same on google scholar, and i get the far more reasonable
radio census of such objects as #1 and the observational signatures as #2. I dont how to explain this. I’m sure
somewhere on the list that ADS spits out, one can eventually find it, but it’s not sorted by probability of match to the search
terms possibly.

3. Very minor issue with minimal effect on my usage - the "acr??SOMETHING" query to only pick up acronyms (in this case, SOMETHING) will also pick up that string in section titles. I mostly see this with acr??BLAST, picking up section titles about blast wave whatever in supernova papers. Not a big deal, the text around it on the ADS highlights makes perfectly clear when that happens, but it is a false positive on the acr?? queries.

This is minor, but for my grant application I thought it would be good to highlight my h-index relative to the h-index of the last few people in my area to win it at the time of their submission (i.e., being able to set time-range for the metric measurements reported by ADS). I found a roundabout way to get this from ADS but it would be really nice if there was a simpler way to do this.

While the new layout of the website is great, I find that it takes quite a bit longer to load, which is frustrating. Maybe if they could speed up the front page loading, rather than (probably) loading all the data, that would help.

It would also be useful when returning a list of objects through Search Objects > By Parameters with matching Name Prefix Constraints that it provides the matching name, as well as the primary

NED name. e.g. I search on all objects with NGC in the name at it returns many object with non NGC names (which are the primary NED names. For example, the primary NED name is “CXOGSG J000315.3+160806”, which has a cross-ID of “NGC 7814:[WLQ2016] X0013” – it would be good to return that as well.

Not sure this is for the ADSUG but here you go:
I recently noticed that my ADS query links on my website no longer worked (even though I don’t recall getting any information from ADS that they changed on their end).

For example, I have a link that is all my entries on ADS sorted by citation count, which I would launch using the Classic Form and then copy the resulting URL of the resulting page. That link is then embedded into my website, and clicking it would then go straight to that result at any time (up-to-date of course) without me having to go to ADS, type 'stello', and choose the sort: citation drop down.

I have a number of these preset searches (1st author, refereed, non-refereed, diff sorting etc) as links built into my website. But as of recently they all give the same result: the one you would get if doing nothing else than typing 'stello' in the author box (so I get all ADS entries (refereed+non-refereed) where I am (any-order) author sorted by the default (date))....not so useful any more.

My main complaint about the "new" ADS interface is how long it takes to load. Sometimes it will just sit there "loading assets" and I have to refresh the page. I am slowly coming around to the new search interface but it takes a while when you've spent ten years using something much simpler :) Another minor request would be to be able to save the bar charts from the citation metrics explorer. As I'm sure you know, these are really handy for grant proposals, ROPEs, etc, and the results from taking a screenshot rather than exporting a PDF are a bit disappointing. Yes, I know I could download the CSV and write my own plotting code, but since ADS already makes the charts, it surely would be trivial to add downloading them, and save many of us writing our own code?

One excellent feature I used recently was the ability to search the acknowledgements. I was asked to produce a list of papers that acknowledged a particular facility, and another that didn't, and ADS made that a breeze. I also like that it can discern the difference between publication types (article, catalog, software etc). Overall ADS is an enormously important support system for astro and I literally can't imagine how other fields manage without it. Thank you for serving on the committee and I hope the team can keep up the excellent work!

Is there a convenient way to notify ADS of missing references or of records that should be combined?

For example, https://ui.adsabs.harvard.edu/abs/2020arXiv201108948R/abstract does not record https://www.annualreviews.org/doi/abs/10.1146/annurev-astro-112420-035022 ; I can’t find an example of two records (e.g., arXiv and journal) that need to be merged, but I know I stumbled on a few in the past.

I think the ADS Users Group is really useful to pass our feedbacks to the developers of the website. I do have a couple of comments, as detailed below. If you, or anyone else, know that these problems can actually be solved without the developers changing anything, I’d love to know.

First, previous version of ADS allowed “exact name” search, which provided a lot of convenience to people like me, whose last name and first-name initial are so popular. The current version returned hundreds of “Zhao, J” articles although what I input is “Zhao, Junwei”.

Second, after the search returns a long list of results, if I re-list them using a different order, say “Citation Count”, then click into one article. After I click back button, the list will become the original list order, not the ones following “Citation Count” as I would hope. I need to click “Citation Count” again to re-order the list, and this way, I already lose where I was before clicking into that article.

But I have always wanted ADS to have an extra feature and that is the ability of adding a personal profile to my list of publications. Currently, it is possible to make a *custom public library* with, e.g., own list of publications, or just use author’s name filters to make a *custom ADS url* for own list of publications (the former needs manual updates, the latter is updated automatically with new publications), but that would be great if one could also add a bit more information on top of the page (profile picture, name, affiliation, short bio, etc.). I know there are many other platforms for that (like ResearchGate, Academia.edu, Mendeley, etc. ….. or even ORCID), but since ADS lists the latest publications (automatically and reliably) this extra feature may provide an advantage of having such a profile page over other similar services which usually have issues with correct list of publications, etc. If this sounds relevant, I would appreciate it if you could pass it on to the ADS developers. Thanks

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ADS 101 - some helpful tips on the ADS webpage would be helpful - said several colleagues.
