ACS creates new avenues for engagement and sharing by integrating figshare into its journal platform

The American Chemical Society has integrated the figshare DataStore and Viewer into its full text journal platform. This venerable society publisher is also using the figshare infrastructure as a custom portal for its research outputs.

ACS started by trying figshare on a pilot basis involving the supporting information from an initial set of 2 journals, and then expanded to the entire portfolio of 49 journals in the ACS collection.

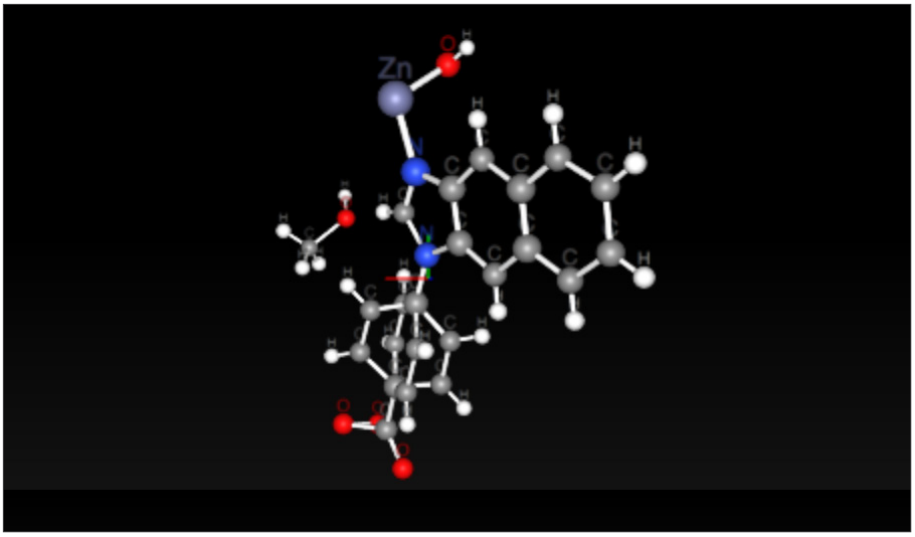
Jeff Lang is the Assistant Director for platform development at the American Chemical Society (ACS). In this role, Jeff drives innovation of the ACS' online platform for journals and books to meet the emerging needs of its readers and authors. The ACS Collection comprises of over 1 million journal articles with 40,000 new articles published each year across 49 journals.

The platform is hosted by Atypon and Jeff is also working to add figshare and Altmetric tools which include support for the ActiveView PDF format. Jeff works with teams across ACS to develop a strategic vision which is then realized through projects delivered by implementation teams.

ACS objectives

ACS Publications's mission is to provide critical research tools for chemists in support of the chemistry endeavor. "We support authors and researchers with tools to assist their ongoing research, and then share the outputs of their research with the global community of chemists," says Jeff.

cont.



A 3-D molecule visualized by figshare through an embed in an ACS article

About

- **Jeff Lang**, Assistant Director, Platform Development, American Chemical Society Publications

Goals

- To create an orderly scalable process for managing, visualizing and sharing supplementary data
- To deploy a cloud-based workflow allowing ACS editors to share their presentations in a way that protects their intellectual property with appropriate licensing terms

Approach

- Integrate the figshare DataStore and Viewer into the ACS online platform, and use the figshare infrastructure as a branded custom data portal for the ACS

https://acs.figshare.com/

Results

- Since the project went live in January 2016, the ACS has uploaded an estimated 300,000 files of supporting information to figshare, with plans to add another 125,000
- Important chemical structure file types such as those in MOL and SDF formats are now viewable directly within the browser for ACS editors, authors and readers

Jeff Lang

Technical and operational challenges

Integration presents a serious technical challenge for the ACS. “There are many companies within the space doing very interesting things right now,” says Jeff. “We need to be able to integrate those things in a timely way, using a solid workflow that doesn’t overwhelm our researchers, but adds to the value of our content.”

Research-driven development

Jeff reports that before integrating figshare, the ACS Product Management team conducted research into how its authors and readers were interacting and engaging with supporting information around published articles. “We noticed a real growth in both delivery and usage of supporting information,” he says. “We host a yearly Summer Institute for early career researchers, and in 2015, we saw a prominence for increased engagement in supporting material. Researchers feel an increased sense of responsibility to share supporting data but also to get access to data for their own research requirements.”

“Historically authors were shy about revealing their data,” he continues. “But the new generation, especially from the computational and engineering sides of chemistry are more inclined to share. There has been a cultural shift towards data sharing.”

figshare implementation process

ACS was the first publisher to use the new figshare platform. “We saw that figshare could deliver many of the things that our researchers were looking for in regard to data sharing,” says Jeff. “We could use figshare to implement presentation sharing, which we considered an important thing to do. We had investigated another third-party tool, and attempted to build our own application in-house but neither proved satisfactory. It made much more sense to use figshare, which could also do many of the other things we wanted. figshare has viewers for a number of different chemical structure file types, such as MOL and SDF files, which are now viewable directly within the browser.”

“Integration is a huge technical challenge for the ACS. There are many companies within the space doing very interesting things right now. We need to be able to integrate those things in a timely way, using a solid workflow that doesn’t overwhelm our researchers, but adds to the value of our content.”

Content added

The ACS has added 300,000 files of supporting information into the figshare platform, with plans to add another 125,000. These files cover the complete journal portfolio going back to the start of the ACS journal backfiles. Each journal has its own branded logo page and so the visualization of the supporting information files should lead to increased usage of the journal articles. Jeff is interested in tracking the usage of the embedded figshare widget on the ACS platform, to assess interaction with the widget itself and to see what is driving researchers from figshare to the ACS publications site. This is a critical piece as Jeff expects the vast majority of user interaction to be with the figshare widget on the ACS platform.

Project progress

Jeff is still in the early stages of the project, and he expects to get some meaningful feedback from researchers on the effect of the integration from the ACS Publications Summer Institute.

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