

Alicia Esquivel  
National Digital Stewardship Resident (former)  
Chicago Botanic Garden  
1000 Lake Cook Rd.  
Glencoe, IL 60022

## Report on SWIB17 Conference in Hamburg, Germany

Thanks to the financial support of Bibliothek & Information International (BI-International) I was able to attend and present at the SWIB17 Conference on December 4-6, 2017 in Hamburg, Germany. Funding from BI-International covered the price of conference registration and per diem for duration of the stay plus two travel days for a total of 600 Euro.

The Semantic Web in Libraries (SWIB) Conference is an annual event that focuses on Linked Open Data in libraries and other cultural heritage institutions. The two day conference was organized by ZBW (Leibniz Information Centre for Economics) and the North Rhine-Westphalian Library Service Centre (hbz) and hosted at the Katholische Akademie Hamburg. The conference consisted of presentations from professionals around the world, breakout sessions, lightning talks, and pre-conference workshops on the topics of open data, linking data, and creating tools and software for Linked Open Data production scenarios. The conference was attended by more than 175 international participants and all conference proceedings were in English.

Themes covered in the conference presentations included: Special Collections, Vocabularies, Infrastructure, and Entity Recognition and Look-up. My colleague, Katie Mika, and I gave a presentation in the Entity Recognition and Look-up session entitled, "Improving Named Entity Recognition in the Biodiversity Heritage Library with Machine Learning."

Linked data gives structure so that data can be interlinked and queried semantically no matter the content. This is done by identifying arbitrary concepts and/or objects in the data and creating relationships between other concepts and/or objects by use of URI's, HTTP, and RDF technologies. Linked Open Data (LOD) is linked data which is openly available for free reuse and released under an open license. Libraries can benefit from linked data and Linked Open Data by making collections more discoverable and useful by creating relationships across different data types and data providers. Library data can become easier to navigate within the organization as well as within the greater Linked Open Data web. Collection materials can gain context from other collections and provide new research experiences for patrons when data is accessed in a Linked Open Data way.

Our presentation was about our project work with the Biodiversity Heritage Library (BHL). Katie and I were two of the five National Digital Stewardship Residents (NDSR)<sup>1</sup> working with BHL on best practices and recommendations for the next iteration of the BHL digital library platform. BHL is a consortium of natural history and botanic libraries that digitize heritage literature and make it available for free on the web. As of December 2017 more than 53 million pages are available on the BHL portal.<sup>2</sup> My main project was to conduct a content analysis of the BHL collection to determine what has and has not been digitized in order to focus future digitization efforts. Katie's main project was to assess archival and handwritten materials in BHL, such as field books and journals, and determine how to integrate their transcriptions into the BHL portal. Throughout our projects we realized how important scientific names are in biodiversity informatics. Scientific names can be used as the links between different data sources such as heritage literature, occurrence records, specimen labels, and images and videos. Currently, BHL is utilizing scientific names for some semantic linking across other

---

<sup>1</sup> <https://ndsr-program.org/>

<sup>2</sup> [www.biodiversitylibrary.org](http://www.biodiversitylibrary.org)

biodiversity data sources such as Encyclopedia of Life<sup>3</sup> and GBIF<sup>4</sup>, however, BHL's data still remains in a large relational database structure, not stored in linked open data triples. In our presentation, we described current semantic linking in biodiversity informatics and potential semantic links that can be made possible with the implementation Linked Open Data.

After submitting a proposal to present at SWIB and before the actual conference, I started a new position at Illinois Institute of Technology's Paul V. Galvin Library. While I was presenting on my previous work at SWIB, I took the opportunity at the conference to consider how to bring LOD and semantic web ideas into my new position.

This was my first trip to Germany and I had a wonderful time. I enjoyed using the public transportation in Hamburg and found it safe, clean, and easy to get around on the S-bahn and U-bahn. I was delighted by the numerous Christmas markets around Hamburg and enjoyed eating local cuisine around town. While in Hamburg I visited the Rathaus, Miniatur Wunderland, several churches including St. Nicholas and St. Michael's and the Planten un Blomen park as suggested by SWIB organizers.

Thanks again to BI-International for allowing me to attend and present at the SWIB17 conference and making my first trip to Germany possible.

---

<sup>3</sup> [www.eol.org](http://www.eol.org)

<sup>4</sup> [www.gbif.org](http://www.gbif.org)