Building relationships with users

One goal that I have for the Naval Reactors History Database is to build relationships with the site’s users. To do this, I’ve employed several easy-to-use tools created by Facebook:

- The Open Graph Protocol, which enables any web page to become an object in the Facebook social graph
- The Like button, which enables a user to establish a relationship with any page in the Facebook graph

As Eric Hellman of Ghezareh illustrated in the below graphs, the Like button can be seen as the most popular implementation to date of the Semantic Web, which is based on the inclusion of standardized, semantic information in web pages.

The #1 application of the semantic web

Open Graph metadata and the Like button have been embedded at the top level for the Naval Reactors History Database. I’ve used these tools to drive traffic to the site, following these basic steps:

1. **First, bringing the resource to the attention of potential users:** this can be accomplished through posting information about the site in relevant online groups, by sharing information about it with friends, and by advertising in Facebook, which enables the targeted presentation of information to users with relevant interests.

2. **Then, letting the resource Like button effect take hold:** to understand this, consider what happens when a Facebook user clicks on the Like button on the Naval Reactors History Database site:

   - A story is added to the user’s Facebook News Feed describing the fact that s/he liked the site; this creates a personal recommendation for the database that’s broadcast to the user’s Facebook friends. Note that Facebook has actively worked to break the appearance of news feed stories in Facebook, by modifying the story and thumbnail image sizes, in order to decrease the click rate to sites.
   - A link to the database is added in the user’s Facebook page under Likes.
   - A linkage is made between the Facebook administrator for the site (identified in the Open Graph Protocol metadata) and the user who clicked on the Like button for the Naval Reactors History Database site: As the administrator, I can publish updates or questions to the users who have liked the database.

Finally, beyond the creation of Open Graph Protocol metadata at the site level, OGIP metadata is generated for subjects prominently covered in the database, as shown in the below Facebook Linter screenshot. I am still exploring how to best use this structured subject level metadata to enhance the site’s visibility to researchers.

Open source software framework

The eXtensible Text Framework (XTF) digital content platform supports the search and display of the Naval Reactors History Database. XTF was developed and is maintained by the California Digital Library. It is a fully open source platform that’s built on the Apache Lucene search toolkit. XTF is used by a wide range of institutions worldwide to support online digital collections and scholarly communication services.

- While XTF is a free-based application, extensive customization of its functionality and appearance can be accomplished through XSLT programming, which lowers the technical barrier for the platform’s use.
- XTF also has a global community of users who communicate with one another via user and developer groups in Google Groups.

The combination of low-cost Amazon Web Services infrastructure, the XTF open source platform, and other open source tools (such as the Linux operating system and the Apache Tomcat server engine), enables the Naval Reactors History Database to be served online at a low cost — approximately the cost of a tablet computer for one year of operations.