

BSA IT Report, June 2024

Here is a summary of the projects and tasks I have worked on since the beginning of the year 2023-24. I wish I could be with you all in Grand Rapids!

CiviCRM Update

Another major update was needed for the 5 societies we support for CiviCRM. While updates are supposed to go smoothly, this one was highly technical. A bug found during initial testing prevented us from doing the update until a subsequent version was released, and after that update was installed another bug was found that I helped the CiviCRM team find and resolve. All included, this was a current project from January until May.

Awards System Project Unification

Our awards system is working nicely, and we've found it to be useful for far more purposes than we originally planned, but along the way the programming code had become fragmented among the different society's implementations due to customizations and code management issues. This year I was able to unify all the customizations and code versions into a single project, which will make management of the sites far simpler. The code was unified as of March and deployed to each site over the Spring as award cycles slowed, with the last one being completed just this week.

CiviCRM implementation for IAPT

This was an ongoing project carried over from last year, into the winter of 2024. There were many delays due to IAPT not having their IT info well managed. Simple things like creating new domain names, getting certs, etc. were difficult to do because nobody knew who had control of the accounts to do these things. Ultimately, we were ready to test/deploy right about the time Pat Herendeen's term ended and a new president started her term; she however decided to go in another direction. They paid their invoice for our previous work toward implementation.

Elections

Elections for the BSA, SSE and SEB were configured and executed. This system, in use now since around 2022, is working pretty well for us.

Amazon Server Cost Analysis

Gradually, our Amazon server costs had been spiraling up. Last month I undertook an examination of where these costs were coming from exactly. It's not an easy task because Amazon's approach is to charge customers for exactly the resources used, and there are dozens of categories beyond our base cost for each "server". However, the biggest chunk was easily identifiable as "data storage", but for what, exactly? The result was that most of it could be classified as backup copies of various things like old server instances, server images, moment in time snapshots, etc. I went over them with a fine-toothed comb to determine exactly what was useful/necessary and not, and deleted tons of data not worth paying for. We have yet to have a whole month of billing but it looks like our costs will be about half going forward.

Botany Conference Archives

With the transition from using our own internally developed application for Botany Conference to using XCD, the need has arisen for an application to archive past Botany Conference data. XCD only allows public use of conference data for one year, yet we need the data available perpetually. Before the move to XCD, years ago, I started preliminary work on a new version of our own Botany Conference app, but abandoned it when it became obvious we needed to go another direction. However, that

preliminary work is perfect for an archiving app, and I started working on that a little this Spring. It will be very simple compared to a full-blown conference app, not needing any complicated user interface features like an abstract submission process or a session setup/management interface. Just data storage, browsing and searching. The data storage part is already nearly complete.

New Membership Directory

The biggest drawback to our move to CiviCRM (10 years ago!) was its lack of a genuine membership directory. I cobbled something together but it's crude, even needing separate search forms to find Section members. CiviCRM has now released a sophisticated set of tools for custom interfaces and searching that looks very promising. So far, I have only done some experimenting, watched some training videos, and asked questions. The answers are along the lines of "I don't see why that wouldn't work", so I am hopeful we can use these tools to create a very nice, and secure, membership directory.

Email Deliverability/DMARC

There's a relatively new spam management protocol available called DMARC. It is different than other protocols like SPF and DKIM, in that rather than being used to identify spam, it is used to report to other mail servers what to DO with spam. For example, "deliver, quarantine, or discard". So a full and effective DMARC implementation could go a long ways towards reducing or eliminating phishing attempts from fake botany.org emails. Part of DMARC is a set of tools that provide feedback to us about how well our current email and spam tools are configured, as well as showing the amount of spam/viruses/phishing sent out in our "botany.org" name. Currently I am still fine tuning our configurations so that any real email isn't lost when we get to the point where we're telling other mail servers to quarantine or discard emails that look evil.

On the horizon:

Blind Evaluations for Awards

One of our societies requested the ability to have awards evaluated blindly... in other words, the evaluator wouldn't know the name of applicant they are evaluating. We see the value of this as well. It's not as easy as it might seem, because downloaded files (LORs and Proposals) are named according to the name of the applicant, and there are some other complications as well.

Amazon Server Upgrades

Our Amazon servers run on a Linux based operating system called Ubuntu. A new version of Ubuntu is released every 4 years and each version is supported for 5 years. So, there's 1 year of overlap for new version transitions. We are currently in that overlap year. The 2024 version was released in April. Our current version will reach end of life in April 2025.

Drupal for CiviCRM Update

Our CiviCRM contact and membership management system uses a content management system called Drupal as platform to run inside of. It is Drupal version 7. Version 7 of Drupal will reach end of life in 2025, so we will need to do something about that. There are various paths forward, but each will require some amount of work.

Transition to CiviCRM/Mosaico for bulk communication

We currently use MailChimp for bulk emails (such as newsletters and announcements) but CiviCRM has a bulk email component as well. When we first started using CiviCRM, the bulk email component was pretty basic. There is a new component for it now called Mosaico, which makes it closer in layout/design features to what Mailchimp has. We need to learn it and experiment with it. Using it

instead of Mailchimp would result in tighter integration with membership data, better record keeping, and lower costs.