One Login, 10 Million Volumes

Harvard Library Technology Services Adds HathiTrust
to a Growing List of Single-Authentication Resources

In 2008, 13 universities began work on a groundbreaking collaborative repository for digital content. Today, HathiTrust offers more than 10 million volumes, with full-text search across every item. As an active project partner with Google Books, the Internet Archive, and the HathiTrust Committee on Institutional Cooperation, Harvard has proudly offered access to HathiTrust to key members of the Harvard Community for several years — but as just one more service in a list of resources protected by different username and password credentials. What's more, even after clearing the authentication hurdle, Harvard patrons weren't able to use all of HathiTrust's functionality, making for a confusing and frustrating user experience.

The Problem

How best to provide shared, secure access to computing resources is a dilemma as old as computing itself. A web-based system for shared credentials was first addressed at Yale in the early 2000s, and Harvard developed its own system for user authentication in 1999. But more than a decade later, sharing credentials between service providers (SPs) was still rare, meaning that members of the Harvard Community needed to use — and memorize — a different username/password pair for nearly every resource they used, even within the University. Using Harvard credentials to gain access to resources outside the local ecosystem seemed far-fetched at best — and this included access to HathiTrust.

The Solution

Harvard wasn't alone in seeking ways to address the problem of shared authentication. Fortunately, one solution was on the rise: InCommon, a privacy-preserving "trust fabric" for American research and higher education organizations. Operated by Internet2, InCommon provides SAML-based federation between service providers and identity providers (IdPs), enabling member organizations to allow users to access partner organizations' resources using their home credentials.

In 2013, Harvard became part of the InCommon federation as an IdP, joining a roster of 358 IdPs and 1,733 SPs — with more joining all the time (see bit.ly/1nxpwbi for the latest list). As a result, Harvard Community users gain access to a vast selection of databases and applications, making it quicker, simpler, and safer for faculty, staff, students, researchers and others to use not only HathiTrust, but a wide range of services.

When visiting an InCommon SP site, users simply select Harvard as their home institution, and the site redirects them to Harvard's login screen. Once logged in, users are redirected back to the SP's site — a process involving not only usernames and passwords already memorable to the user, but also the Harvard login system's familiar visual interface. Plus, in the case of HathiTrust, federating with InCommon opened the door to improving Harvard users' access to full HathiTrust functionality, Says Director of IAM Engineering Magnus Bjorkman: "Federation protocols and collaborative organizations such as InCommon allow easy, full access into the worlds of software-as-a-service and platform-as-a-service."

The Result

As a result of offering access to HathiTrust via InCommon, IAM has enabled research and collaboration while simplifying user experience, facilititating technology innovation, and protecting valuable network resources. Harvard Library Technology Services Managing Director Tracey Robinson is thrilled with how the change has boosed user satisfaction: "Although patrons could previously see fulltext for public-domain works, they could not download copies, which was a real hurdle for scholars. The InCommon work opened the door to this. We had been getting several queries a month from patrons asking why they could not download content. Now we hear nothing — it just works!"