

# Other Delivery Solutions

## *Google's Campus Activated Subscriber Access (CASA) and Entitlement Checks in Content Syndication Partnerships with ResearchGate*

### Introduction

In chapter 3, we covered the access broker browser extensions adopted by many academic libraries to help their users overcome the many difficulties caused by less-than-user-friendly authentication and authorization methods. In chapter 4, we covered the efforts of publisher-backed projects SeamlessAccess and GetFTR to tackle these issues at the source by creating new protocols and methods to solve some of them. However, these are not the only solutions. In this chapter, we will cover Google-backed Campus Activated Subscriber Access (CASA) as well as developments in entitlement checks for content syndication with ResearchGate.

### What Is Campus Activated Subscriber Access (CASA)?

Campus Activated Subscriber Access (CASA) was introduced by Google in 2017 and has quickly become supported by an impressive list of content owners, including publishers and aggregators—HeinOnline, Gale, JSTOR, Ingenta Connect, HighWire-hosted journals, Wiley, Project Muse, APA, EBSCOhost, Emerald, Springer Nature, Elsevier, and more.

This list of content owners that support this standard—comparable to the current list of supporters of RA21/SeamlessAccess or GetFTR—has mostly flown under the radar in the eyes of many users and librarians. This is probably because some content owners have automatically turned on this feature (opting

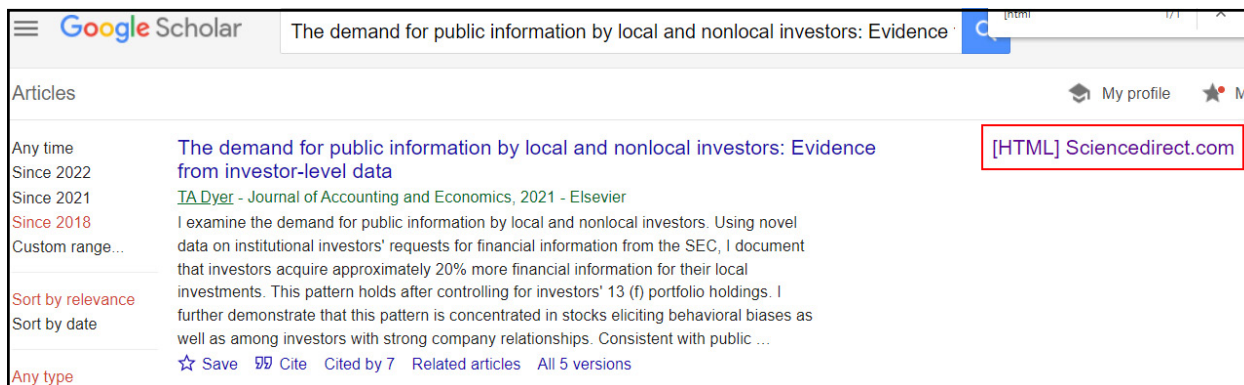
users in by default), coupled with the fact that, when this feature works, it automatically and seamlessly grants access to users who may not even notice what is happening. So what does CASA do?

Recall that in chapter 1 we talked about the problems of IP recognition when users are off campus. Because they are off campus, they do not have the right IP range and can't be easily recognized as users from an institution that is entitled to access the resource.

This situation led to solutions such as proxies and browser extensions, which are often inconvenient (as described in chapters 2 and 3). SAML-based methods, which are improved by SeamlessAccess (chapter 4), promise to make consistent, intuitive single sign-on a reality, but for them to work, both institutions and content owners need to support SAML and be in the same identity federation. This leads to a question: Is there a way to enable users to experience single sign-on without relying on SAML?

CASA's solution is for the user's browser to remember and record their affiliation from when they were either on campus or using a proxy (so they can benefit from IP authentication), such that when they are off campus and not using a proxy, they can still benefit from those earlier recorded affiliations.

In practice, CASA leverages the fact that Google Scholar, unlike the library home page, may be one of the most popular starting points for an academic search. As CASA is an extension of the Google Scholar Subscriber Links program, you need to understand what Subscriber Links are. Unlike Library Links, where Google Scholar gets holdings information from



**Figure 5.1**  
Example of a Subscriber Link

the library, Subscriber Links depend on entitlement and subscription data from the publishers. When users see search results in Google Scholar—assuming they are on campus with the right IP address and the articles are from participating content owners—they may see some links on the right side of the search results that, when clicked, give them access to the full-text resources. These links are called Subscriber Links. See figure 5.1 for an example of a Subscriber Link. Note: This Subscriber Link can coexist with links added by Library Links if it applies.

In the background, the following is occurring:

1. A user lands on a page of results in Google Scholar.
2. Google Scholar looks up the list of subscriptions accessible to the user (based on IP address) from the Subscriber Links data it received from content owners.
3. Based on the data found, Subscriber Links (access links to the subscribed articles) appear in the Google Scholar interface for on-campus users.

CASA comes into play when this subscription data for each user based on affiliation is stored as a token in a cookie (see figure 5.2).

The magic happens when the user using the same browser with the CASA cookie is now off campus. If they try the same search on Google Scholar, those subscription links will appear again. More importantly, when the user clicks on these links, they will be sent to the publisher site. But instead of not having access because they are off campus, the publisher will use the CASA cookie to allow access (see figure 5.3).

As noted on Google Scholar’s help page, in such a situation this will “indicate your subscription access to participating publishers so that they can allow you to read the full-text of these articles without logging in or using a proxy.”<sup>1</sup> This recording is done via the stored cookie. But you might say this is useful only if the off-campus user is trying to access journal articles

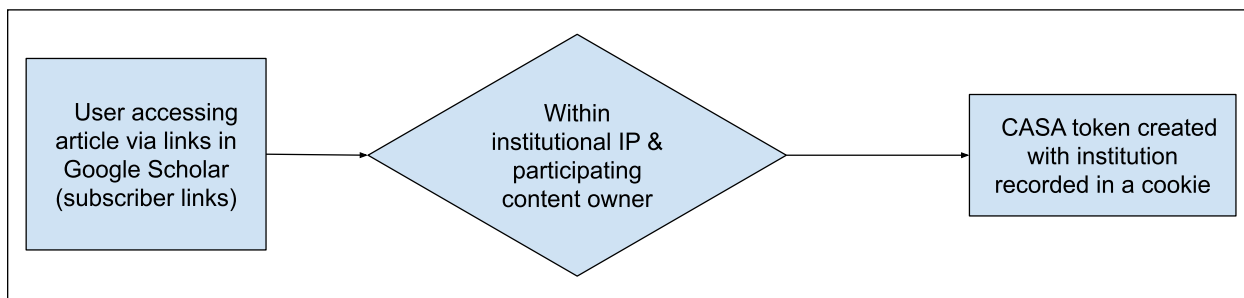
from Google Scholar. But what happens if the user is not trying to access the resource from Google Scholar? This is where a variant known as Universal CASA comes into play.

If you have a CASA cookie and visit publishers that support this feature, you will see on the right of each article a small gray badge with the label PDF or HTML that allows access when you click on it. Google calls such links “off-campus access links.” See figure 5.4 for an example.

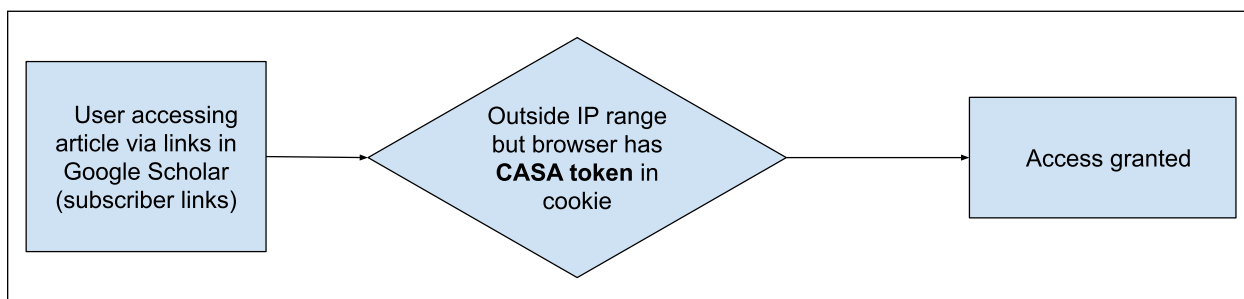
An early adopter of CASA noted that you don’t need a Google account to benefit from CASA, but if you created the CASA cookie while logged into your Google account, other devices logged on with the same account will benefit from CASA cookies.<sup>2</sup> There is one catch to CASA. This benefit normally lasts for thirty days only. In other words, to benefit from CASA, you need to be on campus (or otherwise authenticate via IP) every thirty days. As of this writing, this time period has increased to 120 days in response to the fact that users may now work remotely more due to COVID-19. Users who do not trust Google (particularly if the Universal CASA feature will share data with Google) and do not want to use this feature can go into the Google Scholar settings, click on Account, and uncheck “Signed-in off campus access links.”

## CASA Compared

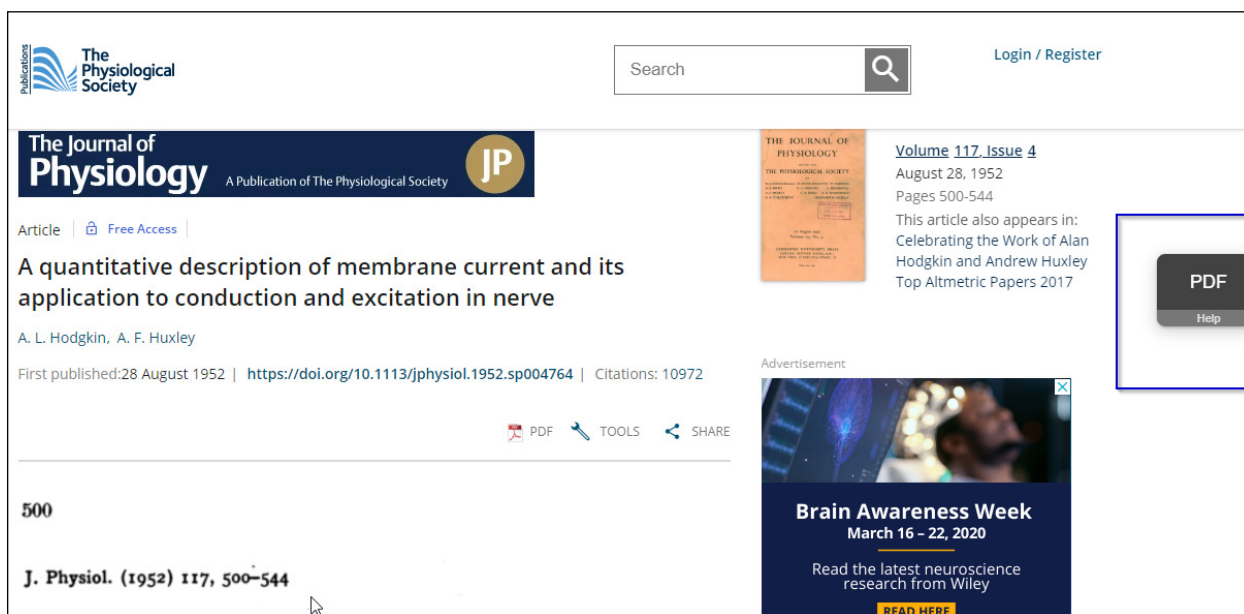
Google CASA at its best is free to use and truly seamless, as there is no need to sign in at all as long as you have a valid CASA cookie. Unlike SeamlessAccess, it also does not require the institution to invest in configurations for federated SAML access. It also partners with a wide range of content owners, including aggregators such as EBSCOhost, which solutions like GetFTR do not yet cover. One unique selling point of CASA is that this solution, once enabled, can work on multiple devices, including mobile devices, at the



**Figure 5.2**  
Process of creating a CASA cookie



**Figure 5.3**  
Process of granting access based on CASA cookie



**Figure 5.4**  
Example of a Universal CASA access link appearing when not accessing via Google Scholar

same time if you sync the CASA cookie with your Google account.

There are a couple of drawbacks. First, as already mentioned, to benefit fully from this solution such that it works across all your devices, you need to associate it with your Google account, which means giving up even more of your privacy to Google. Second,

you need to remember to continually validate your CASA cookie every thirty days (currently 120 days due to the COVID situation). CASA is built on top of the Subscriber Links program. It is important to note the subscription or entitlement data on what the user can access comes from the content owner, not the library. This makes it similar to GetFTR, which,

as discussed in chapter 4, is both advantageous and disadvantageous.

Lastly, while there have been privacy concerns that access broker extensions and SAML assertions could identify the user, CASA might have even more privacy implications given that Google itself is able to associate and track your research activity even if you are not signed into your Google account at all.

## ResearchGate and Content Syndication

ResearchGate is probably the largest academic social network, or scholarly collaboration network, reaching millions of researchers. However, it has been controversial for many reasons, but mainly because it has been accused of illegally hosting millions of papers that infringe on publishers' copyrights.

This issue came to a head when the Coalition for Responsible Sharing, consisting of publishers such as ACS and Elsevier, was formed in 2017 to take "formal steps to address the illicit dissemination of enormous amounts of published journal articles on ResearchGate's website."<sup>3</sup> Some members of this organization, including ACS and Elsevier, have even taken legal action in the US and Germany.<sup>4</sup> However, other publishers, including Springer Nature, Cambridge University Press, and Thieme, have instead managed to come to agreements with ResearchGate on how to manage sharing of their content.<sup>5</sup> A few publishers, notably Springer Nature, Wiley, Hindawi, and Rockefeller University Press, have also started content syndication pilots with ResearchGate. But what is content syndication?

### What Is Content Syndication?

In the journal publishing business, there have generally been two models under which an institution could gain and provide access for its users.

Institutions could subscribe to a journal directly from the publisher, such as Wiley or Sage. Alternatively, they could subscribe to an aggregator that serves as an intermediate distributor of content. The aggregator licenses the content from the publisher and resells it to institutions that sign a contract with the aggregator. The key thing to note is that the aggregator hosts the subscribed content on its own aggregator platform (which is different from the publisher platform) so users whose institutions provide access only via the aggregator will be able to access the content only via the aggregator platform and not via the publisher sites. This can be frustrating to users if they land on the publisher sites via methods such as Google (which is a common occurrence) and are unable to gain access.

In a content syndication model, institutions continue to subscribe to content from publishers. However,

publishers can "put their content in the discovery and access pathways that users have adopted. Users who are entitled to access the materials, based on an existing license typically between the publisher and the library, would be able to do so on almost any site."<sup>6</sup>

In this case, publishers such as Springer Nature and Wiley have signed content syndication agreements that allow ResearchGate to carry full-text version-of-record papers on the platform for selected journals. This benefits users because a growing number of users spend a lot of time on ResearchGate. In return, ResearchGate shares usage data with publishers on the success of these arrangements, possibly via the Distributed Usage Logging System, which was first supported by COUNTER Code of Practice—Release 5.<sup>7</sup> For example, Wiley's first content syndication pilot with ResearchGate included eighteen open-access gold journals and seventy-eight hybrid journals.<sup>8</sup>

### Authentication and Authorization on ResearchGate

An interesting question is how ResearchGate will handle access of articles syndicated on its platform. While Springer Nature's first iteration of its content syndication deal did not enforce any access controls at all, later versions started to do so. Currently it is unclear how ResearchGate implements access controls except it does not appear to be supporting SAML-based methods. Early tests by Lisa Hinchliffe and Roger Schonfeld suggest that ResearchGate is using some combination of IP address and ResearchGate profile.<sup>9</sup> This is also mentioned by Wiley.<sup>10</sup> Since ResearchGate profiles currently aren't verified, it's likely these checks aren't 100 percent reliable, but this area will no doubt see further experiment and refinement for entitlement checks.

## Conclusion

In this chapter, we covered two other authentication and authorization methods—namely, Google's Campus Activated Subscriber Access (CASA) and entitlement checks based on IP and ResearchGate profiles in content syndication partnerships between publishers and ResearchGate. This completes our coverage of the major authentication and authorization techniques in use currently. In the final chapter we will conclude with an overall summary and some thoughts on the future.

## Notes

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2. "Campus Activated Subscriber Access (CASA)," HighWire Press, accessed November 24, 2021, <https://www.highwirepress.com/resources/data-sheets/casa-faq/>.
  3. "The Coalition for Responsible Sharing and ResearchGate," Coalition for Responsible Sharing, accessed November 26, 2021, <http://www.responsiblesharing.org/about-us/background/>.
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  6. Roger C. Schonfeld, "What Is Content Syndication?" *Ithaka S+R* (blog), March 1, 2019, <https://sr.ithaka.org/blog/what-is-content-syndication/>.
  7. Roger C. Schonfeld, "Will Publishers Syndicate Their Content?" *Scholarly Kitchen* (blog), October 15, 2018, <https://scholarlykitchen.sspnet.org/2018/10/15/syndicate-content/>.
  8. "Easily Access Wiley Research, Directly on ResearchGate," Wiley Online Library, accessed November 26, 2021, <https://onlinelibrary.wiley.com/researchers/read/find-research/wiley-researchgate-pilot>.
  9. Lisa Janicke Hinchliffe and Roger C. Schonfeld, "Diverting Leakage to the Library Subscription Channel," *Scholarly Kitchen* (blog), July 16, 2019, <https://scholarlykitchen.sspnet.org/2019/07/16/diverting-leakage-to-subscription/>.
  10. "Easily Access Wiley Research."