Introduction

Electronic resources are a cornerstone of library collections in the modern era. With many libraries offering a robust selection of licensed, purchased, and freely available e-resources, library users have come to expect near-instantaneous access to content from a diverse set of subject areas in a wide range of formats. However, the systems in place to support the discovery and delivery of e-resources to library end users are complex. Depending on a library's system (and how one counts), a user may pass through as many as five or six distinct technology components in order to retrieve the full text of a single journal article. And with these components dependent upon the accurate and timely transfer of data between library, publisher, subscription agent, and discovery vendor, it is unsurprising that libraries and their users experience disruptions in e-resource access.

Troubleshooting e-resource access disruptions has grown as a topic of interest within the library science literature over the past decade. As part of a content analysis of troubleshooting articles published across eight library and information science journals, Lowry noted that the number of published troubleshooting articles has "increased moderately over time," but that ". . . even though the criteria for inclusion in the study included articles published from 2000 to 2020, no articles published earlier than 2010 appeared in the sample" (Lowry 2021, 162). These trends coincided with academic libraries' adoption of discovery services, which arrived on the market in the early 2010s and became largely ubiquitous in the academic sphere by 2018. In his 2018 review on the implementation of discovery systems by academic libraries in the United States, Breeding states that "only 16 percent of the libraries in the group under consideration [had] not yet implemented one of these products (213 out of 1,357)" and that research-intensive universities led the way with only 4 out of 152 institutions (3%) not employing a discovery service (Breeding 2018, 23). As a result of this widespread adoption, most of the discourse surrounding access disruptions and access troubleshooting is predicated on a library utilizing a discovery system as the primary mode of e-resource access for its end users.

For this technical report, we discuss the current landscape of electronic resources access disruptions through the lens of the prevailing access tool employed by academic libraries: the discovery service. The report outlines the technical components through which library end users gain access to electronic materials through the discovery system environment and describes the common points of failure within them. The report also discusses the troubleshooting techniques and tools through which access issues are identified and diagnosed. The report closes with a discussion on new technological developments in library discovery and access, highlighting the new opportunities for access failure, as well as the initiatives aimed at mitigating these issues.

References

Breeding, Marshall. 2018. "Index-Based Discovery Services: Current Market Positions and Trends." *Library Technology Reports* 54, no. 8 (November/December): 1–33. https://doi.org/10.5860/ltr.54n8.

Lowry, Lindsey. 2021. "Exploring the Evidence-Base for Electronic Access Troubleshooting: Where Research Meets Practice." *Journal of Electronic Resources Librarianship* 33, no. 3: 156–69. https://doi.org/10.1080/1941126X.2021.1949153.