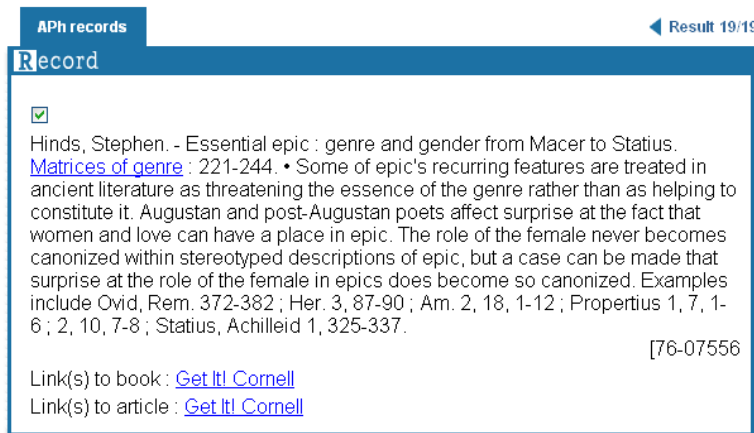


Canonical Citation Linking and OpenURL

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Project web site: <http://cwkb.org>

Scholars of Classical literature frequently use and encounter citations to ancient texts that are independent of any particular edition or translation. The record below from *L'Année philologique*, an abstracting and indexing service specializing in scholarship about Classical literature, is a typical example of this.



The screenshot shows a record from the APh records database. The record is titled "Record" and contains the following text:

Hinds, Stephen. - Essential epic : genre and gender from Macer to Statius. [Matrices of genre](#) : 221-244. • Some of epic's recurring features are treated in ancient literature as threatening the essence of the genre rather than as helping to constitute it. Augustan and post-Augustan poets affect surprise at the fact that women and love can have a place in epic. The role of the female never becomes canonized within stereotyped descriptions of epic, but a case can be made that surprise at the role of the female in epics does become so canonized. Examples include Ovid, Rem. 372-382 ; Her. 3, 87-90 ; Am. 2, 18, 1-12 ; Propertius 1, 7, 1-6 ; 2, 10, 7-8 ; Statius, Achilleid 1, 325-337. [76-07556]

Link(s) to book : [Get It! Cornell](#)
Link(s) to article : [Get It! Cornell](#)

In the article abstract, we see citations to specific passages within five works of Classical literature. Scholars within this discipline immediately understand these citations. They know that “Am. 2.18.1-12” is a citation to Ovid’s *Amores*, and they know how to look up this passage in a print copy of the *Amores*, should they have one available. They may also know that an electronic version of the Latin work is accessible online within the Perseus Digital Library, as well as in an English translation, and they may know how to navigate directly to these. What they cannot do, however, is to link easily from these citations to one or more full-text versions or translations. With increasing numbers of Classical texts available online, this is a frustrating limitation.

This project has explored the possibilities and challenges of using OpenURL to connect citations of canonical works to online texts and other related resources and services. Although the project has used Classical literature as its focus, it has deliberately proposed OpenURL solutions that are applicable to any discipline that cites works independently of specific editions.

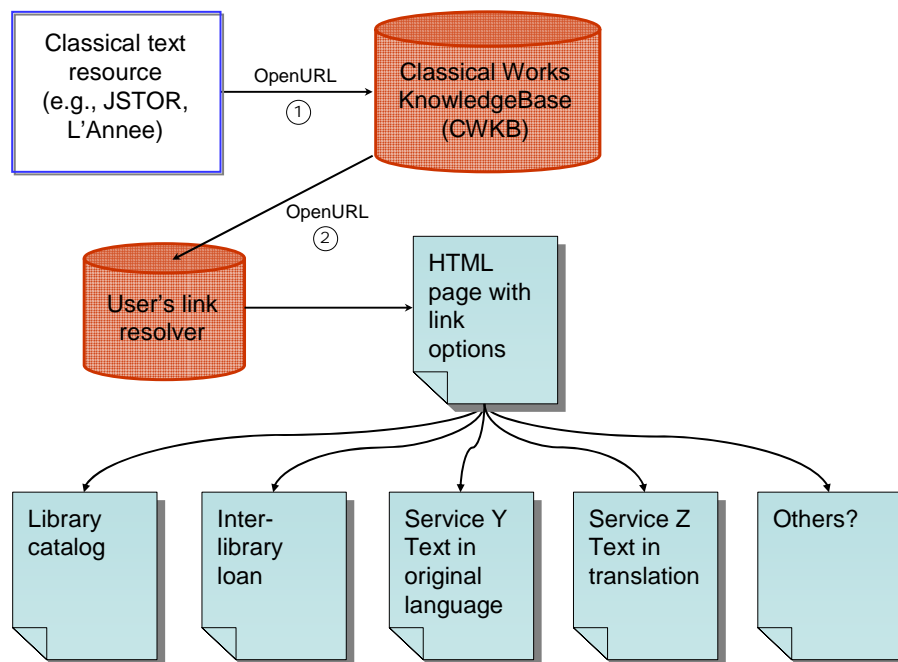
An OpenURL approach to linking among Classical text citations and appropriate resources has a number of appealing features. It would allow services such as *L'Année* to build stable and system independent links from citations. *L'Année* would not need to know how to build a link to a specific text resource, but only how to construct an OpenURL in a standard format containing the citation information. This separation between link creation and link resolution frees services such as *L'Année* from the costs of maintaining these links in a changing online environment. The OpenURL approach also gives more control to a user’s specific community to determine appropriate linking resolution possibilities.

Project work thus far has concentrated on the development of an OpenURL metadata format for encoding citation information, various implementation challenges, and a prototype of a Classical literature knowledge base and linking system. The proposed metadata format is in the form of a

key/encoded-value (KEV) matrix, which allows for the identification of both a work and a specific passage within the work. The matrix and a more detailed discussion of the metadata format are available on the project web site.

The use of OpenURL for canonical citation linking has some practical implementation challenges. Assuming there is an effective way to describe works and their components, how would such references be resolved to the correct and appropriate online resources? In existing OpenURL implementations, this responsibility lies with link resolvers. Link resolvers contain knowledge bases that allow them to resolve OpenURLs to appropriate resources. For canonical work citations, such a knowledge base must include, at a minimum, the ability to identify a described work, understand any reference to its components, and build an array of possible links, primarily those directly to the referenced passage in potentially multiple online resources. This knowledge is not only complex and highly specialized, its potential user base is relatively small compared to the much larger universe of OpenURL users.

We believe that the most cost-effective way to meet such a challenge is by means of domain specific knowledge bases, rather than depending on commercial link resolver vendors to assemble and maintain the necessary information. We have proposed that an OpenURL generating service, such as *L'Année*, send an OpenURL request through a domain knowledge base, rather than directly to the user's link resolver. This information flow is illustrated in the figure below.



The domain knowledge base (essentially a specialized link resolver, here called the Classical Works Knowledge Base—CWKB), sends the request on to the user's link resolver in the form of an OpenURL (2), but only after adding information about specific services available for the requested text. The local link resolver then makes its own decisions about appropriate options to offer its users.

Such a system allows communities to manage the assembly and maintenance of specialized knowledge about works within their own domains and about online resources that can provide services related to those works. It also illustrates a potentially useful OpenURL information model that "chains" link resolvers together, allowing knowledge bases to work in tandem to provide enriched services.