

6.31 Electronic Sources and Locator Information

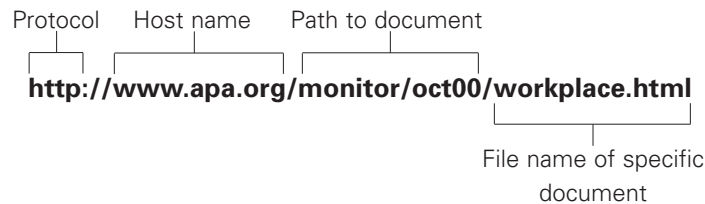
Since this manual was last updated, electronic journal publishing has gone from being the exception to the rule. Publishing in the online environment has greatly increased the efficiency of publication processes and has contributed to a more vibrant and timely sharing of research results. However, the electronic dissemination of information has also led to a number of new publishing models. Unedited articles can now be disseminated on the Internet in advance of publication. Links to supplementary material such as long data sets and videos can be embedded in electronic articles and made accessible with a simple click. Corrections that were formerly noted in a subsequent journal issue can now be made with no fanfare as a simple update to online files. All of these circumstances have called for new ways of tracking digital information.

In this new environment, some former models for referencing material no longer apply. It is not always clear how to distinguish the advance online version of an article from the final published version or how to determine which is the “version of record” (see section 6.24). Moreover, readers may be consulting the electronic version with supplemental material or the print version of the same article without supplemental material. In the ephemeral world of the web, article links are not always robust.

In general, we recommend that you include the same elements, in the same order, as you would for a reference to a fixed-media source and add as much electronic retrieval information as needed for others to locate the sources you cited. We discuss next some key elements of the electronic retrieval process, beginning with some general information about uniform resource locators (URLs) and digital object identifiers

(DOIs) and ending with formatting guidance for citing publication data from electronic sources.

Understanding a URL. The URL is used to map digital information on the Internet. The components of a URL are as follows:



Protocol indicates what method a web browser (or other type of Internet software) should use to exchange data with the file server on which the desired document resides. The protocols recognized by most browsers are hypertext transfer protocol (HTTP), hypertext transfer protocol secure (HTTPS), and file transfer protocol (FTP). In a URL, the protocol is followed by a colon and two forward slashes (e.g., `http://`).

Host or *domain name* identifies the server on which the files reside. On the web, it is often the address for an organization’s home page (e.g., `http://www.apa.org` is the address for APA’s home page). Although many domain names start with “www,” not all do (e.g., `http://journals.apa.org` is the home page for APA’s electronic journals, and `http://members.apa.org` is the entry page to the members-only portion of the APA site). The domain name is not case sensitive; for consistency and ease of reading, always type it in lowercase letters.

The domain name extension (in the preceding example, “.org”) can help you determine the appropriateness of the source for your purpose. Different extensions are used depending on what entity hosts the site. For example, the extensions “.edu” and “.org” are for educational institutions and nonprofit organizations, respectively; “.gov” and “.mil” are used for government and military sites, respectively; and “.com” and “.biz” are used for commercial sites. Domain name extensions may also include a country code (e.g., “.ca” for Canada or “.nz” for New Zealand). The rest of the address indicates the directory path leading to the desired document.

All content on the Internet is prone to being moved, restructured, or deleted, resulting in broken hyperlinks and nonworking URLs in the reference list. In an attempt to resolve this problem, scholarly publishers have begun assigning a DOI to journal articles and other documents.

The DOI system. Developed by a group of international publishers, the DOI System provides a means of persistent identification for managing information on digital networks (see `http://www.doi.org/`). The DOI System is implemented through registration agencies such as CrossRef, which provides citation-linking services for the scientific publishing sector. According to their mission statement, CrossRef is dedicated “to enable easy identification and use of trustworthy electronic content by promoting the cooperative development and application of a sustainable infrastructure” (`http://www.crossref.org/`).

CrossRef’s participants have developed a system that provides two critical functions. First, they assign each article a “unique identifier and underlying routing system” that functions as a clearinghouse to direct readers to content, regardless of where

the content resides (Kasdorf, 2003, p. 646). Second, they collaborate to use the DOI as an underlying linking mechanism “embedded” in the reference lists of electronic articles that allows click-through access to each reference. CrossRef currently has more than 2,600 participating publishers and scholarly societies.

The DOI as article identifier. A DOI is a unique alphanumeric string assigned by a registration agency (the International DOI Foundation) to identify content and provide a persistent link to its location on the Internet.

The publisher assigns a DOI when your article is published and made available electronically. All DOI numbers begin with a *10* and contain a prefix and a suffix separated by a slash. The prefix is a unique number of four or more digits assigned to organizations; the suffix is assigned by the publisher and was designed to be flexible with publisher identification standards. We recommend that when DOIs are available, you include them for both print and electronic sources.

The DOI is typically located on the first page of the electronic journal article, near the copyright notice (see Figure 6.2). The DOI can also be found on the database landing page for the article (see Figure 6.3).

The linking function of DOIs. The DOIs in the reference list function as links to the content you are referencing. The DOI may be hidden under a button labeled *Article*, *CrossRef*, *PubMed*, or another full-text vendor name (see Figure 6.4). Readers can then click on the button to view the actual article or to view an abstract and an opportunity to purchase a copy of the item. If the link is not live or if the DOI is referenced in a print publication, the reader can simply enter the DOI into the *DOI resolver* search field provided by the registration agency CrossRef.org and be directed to the article or a link to purchase it (see Figure 6.5). Locating the article online with the DOI will give you electronic access to any online supplemental archives associated with the article (see section 2.13 regarding supplemental materials).