

## Online Dictionaries: Which Are Suitable for Science?

A good online dictionary can be fast, efficient, and more current than print editions. Better still, consulting an online dictionary may be more convenient than unearthing the cumbersome desk dictionary from a growing mound of journals and manuscripts.

Whether print or online, dictionaries are helpful only if they include the words that users are seeking. Unfortunately, many dictionaries available on the Web are not so good. To help sort the productive from the pointless, this article examines some of the most popular dictionaries available online.

After selecting 15 uncommon—but not quite obscure—words from various fields of science, editing, publishing, and emerging technologies, I entered them into the search field of each dictionary. (For a list of the words and the search results, see the Table.)

Dictionary.com ([www.dictionary.com](http://www.dictionary.com)) performed best, successfully defining 12 of the 15 words. The Web site, which includes such services as language translators and grammar and style guides, is fed by numerous online dictionaries and thesauri. Thus, one query at Dictionary.com can generate a wide selection of returns. The word *chip*, for example, elicits entries originating in the *American Heritage Dictionary*, *Webster's Revised Unabridged Dictionary*, WordNet (Princeton University), the Free Online Dictionary of Computing, and CancerWEB's Online Medical Dictionary.

Another good online dictionary is found at yourDictionary.com ([www.yourdictionary.com](http://www.yourdictionary.com)). A search at this site returned definitions for eight of the 15 test words. Like Dictionary.com, this site offers an abundance of additional language resources.

The American Heritage Dictionary of the English Language ([www.bartleby.com/61](http://www.bartleby.com/61)) and the free, abridged version of Merriam-Webster Online ([www.m-w.com](http://www.m-w.com)) performed well, defining nine and eight words, respectively. There is little need to use these, however, in that the American Heritage Dictionary feeds into Dictionary.com, and Merriam-Webster Online feeds into yourDictionary.com. Also, these Web sites are devoted to

single dictionaries and do not provide the variety of additional resources found at Dictionary.com and yourDictionary.com.

Some online dictionaries seemed promising but proved disappointing. For example, AllWords.com ([www.allwords.com](http://www.allwords.com)) may have been very useful at one time, but its contract with the *Random House Webster's Dictionary* expired in 2002. The much smaller dataset now used by the site contained only four of the 15 words I tried.

Other dictionary duds included Cambridge Dictionary Online ([dictionary.cambridge.org](http://dictionary.cambridge.org)) and Newbury House Online Dictionary ([nhd.heimle.com](http://nhd.heimle.com)). Although generally respected as all-purpose dictionaries, neither contained any of the somewhat field-specific words on the experimental list.

For words that are difficult to find, it might be good to try a metadictionary like OneLook Dictionaries. OneLook ([www.onelook.com](http://www.onelook.com)) calls itself "The Faster Finder" and boasts an index of 740 online dictionaries with a total of more than 4 million words. Unlike Dictionary.com and yourDictionary.com, OneLook does not incorporate entries from other dictionaries into its own site. Instead, OneLook locates dictionaries on the Web containing the search word and then provides external links to those dictionary entries. By following the links suggested at OneLook, I could track down 14 of the 15 test words.

### Specialty Dictionaries

When a general online dictionary just doesn't suffice, it may be time to look at some of the specialized dictionaries available on the Web. There are online dictionaries and glossaries devoted to almost every branch of science and technology. For example, the University of Texas hosts BioTech Life Science Dictionary ([biotech.icmb.utexas.edu/search/dict-search.html](http://biotech.icmb.utexas.edu/search/dict-search.html)), a searchable collection of terms specific to the life sciences.

In a search for specialized dictionaries, yourDictionary.com is a good place to start. In addition to its quick reference dictionary and thesaurus, this Web site is a resource center for a wide variety of specialty diction-

# Net Results

continued

**Table 1 Presence of words specific to science and publishing in online dictionaries**

Words	OneLook .com	Dictionary .com	American Heritage Dictionary	your Dictionary .com	Merriam- Webster Online	AllWords .com
<b>Scientific words</b>						
adiabaticity						
apoptosis	X	X	X	X	X	
lepton	X	X	X	X	X	
magnetostatic	X			X	X	
stereoselective	X	X				
undifferentiated	X	X		X		X
<b>New words</b>						
bandwidth	X	X	X	X	X	
bioterrorism	X	X	X			
nanotube	X	X	X		X	
<b>Publishing words</b>						
caret	X	X	X	X	X	X
colophon	X	X	X	X	X	X
duotone	X	X				
kerning	X	X	X			
keyline	X					
verso	X	X	X	X	X	X
<b>Total</b>	14	12	9	8	8	4

Note: yourDictionary.com is fed by Merriam-Webster Online. However, the version used by yourDictionary.com may differ slightly from the version currently available at [www.m-w.com](http://www.m-w.com). Only dictionaries defining one or more of the 15 test words appear in this table.

aries in numerous languages. Dictionaries are grouped into categories, including astronomy, biology, chemistry, computing, energy, geology, medicine, physics, rhetoric, publishing, printing, and shipping.

A large collection of specialty dictionaries also can be found through MedBioWorld ([sciencekomm.at/advice/dict.html](http://sciencekomm.at/advice/dict.html)). This site has links to more than 200 specialty dictionaries and glossaries available online.

## Acronyms and Initialisms

Specialized glossaries are particularly helpful for defining acronyms and initialisms. In an acronym, the initial letters of the words in a phrase are pronounced as though they form a word—SCUBA (self-contained underwater breathing apparatus), for example. A close relative of the acronym is the initialism, which requires the letters to be spoken individually, as in USA or FBI. Both forms of abbreviation are prevalent in scientific writing, from the names of universities and other institutions to the chemicals, organisms, and physical forces under investigation, to the equipment that researchers use to study them. Unfortunately, few appear in typical dictionaries.

The Web site Acronym Finder ([www.acronymfinder.com](http://www.acronymfinder.com)) contains a search-

able database with more than 200,000 definitions. Returns are generated with the most common listed first. The site also has a form that allows users to submit new entries. The submissions are verified before they are added to the database. This provides for a growing, accurate list of acronyms and initialisms currently used in English.

For acronyms and initialisms specific to biology and medicine, try Medstract ([medstract.org](http://medstract.org)), a collaborative project of computational linguists at Brandeis University and biologists at Tufts University School of Medicine. The Medstract database, called AcroMed 1.0, was released in December 2001. It contains more than 120,000 items that appeared in MEDLINE abstracts in the year 2001. The database is searchable both by abbreviation and by long form. For example, “GF” and “growth factor” each generate a list of returns. Each entry is linked to the abstract from which it was extracted.

Researchers are constantly developing new words and redefining old ones. Thanks to the World Wide Web, editors have tools like Medstracts, OneLook, and yourDictionary.com to help them stay abreast of the rapidly changing English language.