

Use of Browsers and LexEVS Local Java API on EVS Servers

The next several sections analyze available statistics for direct use of EVS resources on EVS servers. This section covers direct use of NCI-hosted EVS terminology browsers and the LexEVS local java API that supports them. Later sections cover the LexEVS distributed (remote), LexEVS caGrid services, the term suggestion site, and ftp download services.

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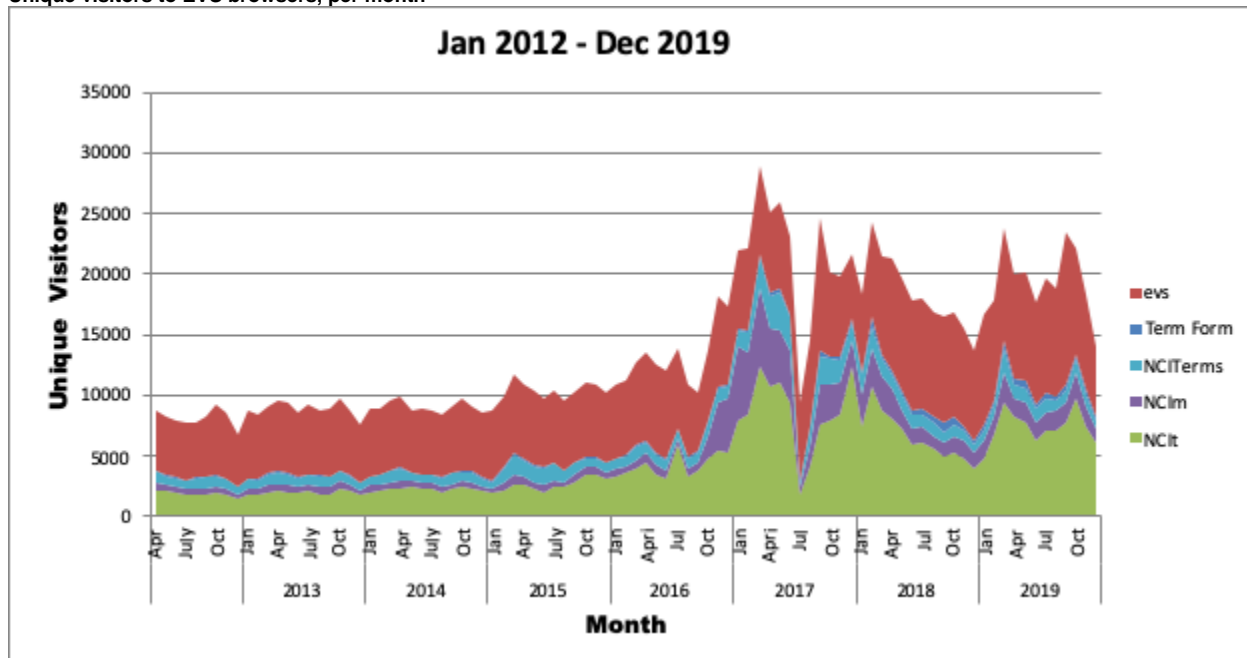
The EVS browsers and LexEVS APIs at NCI are covered by the AWStats and Wusage applications, recording various statistics including number of unique visitors, visits, number of pages viewed and data volume accessed. These have been collected below to give a window into the use of the EVS services. Appendix 1 lists the usage tracking pages from which these statistics are gathered.

We are now able to identify and exclude most web crawler and similar automated hits, as well as internal use for testing and development purposes. Detailed examination of addresses and patterns of use suggest that the use reported below overwhelmingly represents real users from NCI and other organizations of interest. Analyzed below are figures for unique visitors and number of visits, as well as the volume of data communicated, which for all but ftp sites reflects high volumes of traffic in mostly compact units of terminology concept data.

Statistical Overview

The EVS browsers run off the LexEVS local API, and provide the highest number of direct users of EVS terminology servers. The lowest, but most informative, numbers are for unique visitors and number of visits. The number of unique visitors to the EVS family of browsers has averaged around 4,000 per month in 2015, growing to around 10,000 per month by the end of 2016 generating some 17,000 visits.

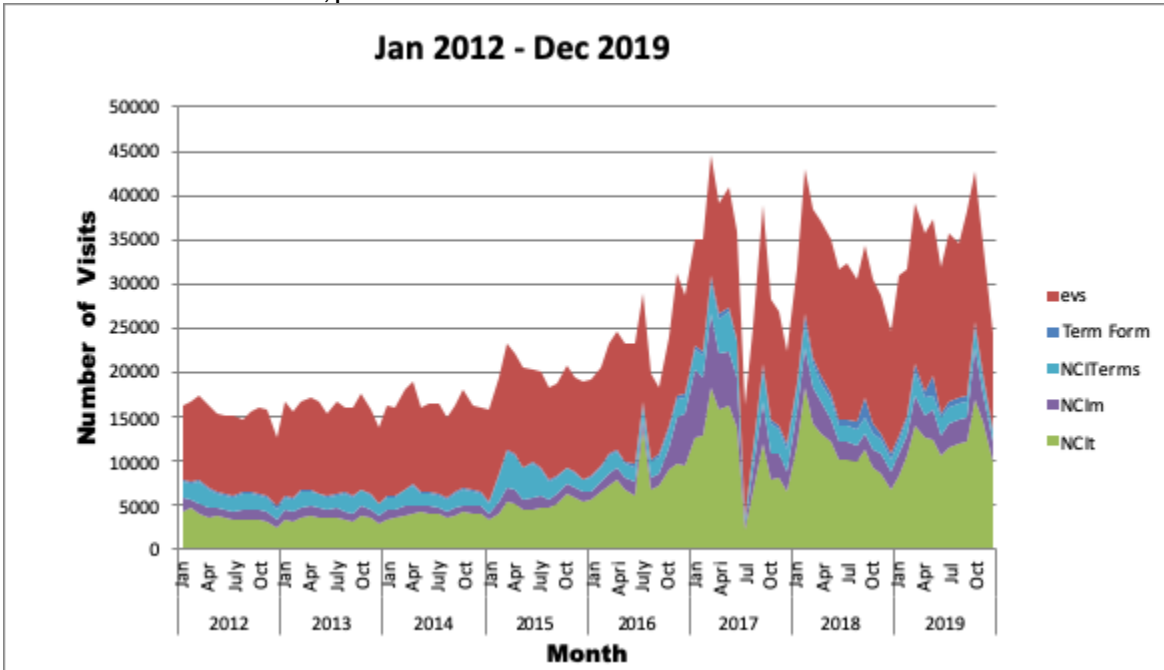
Unique visitors to EVS browsers, per month



Key

Abbreviation	Site
NCITerms	NCI Term Browser (many terminologies, value sets and mappings)
NCIt	NCI Thesaurus Browser (now one face of NCITerms, counted separately)
NCIm	NCI Metathesaurus Browser (separate app, searchable from NCITerms)
TermForm	EVS Term Suggestion site (covered later)

Number of visits to EVS browsers, per month



Browser Users

The data below is from January - December 2015. It shows an overall view of which internet domains hit EVS browsers most heavily, and then breaks down each domain by top users. All browsers are put together for this analysis.

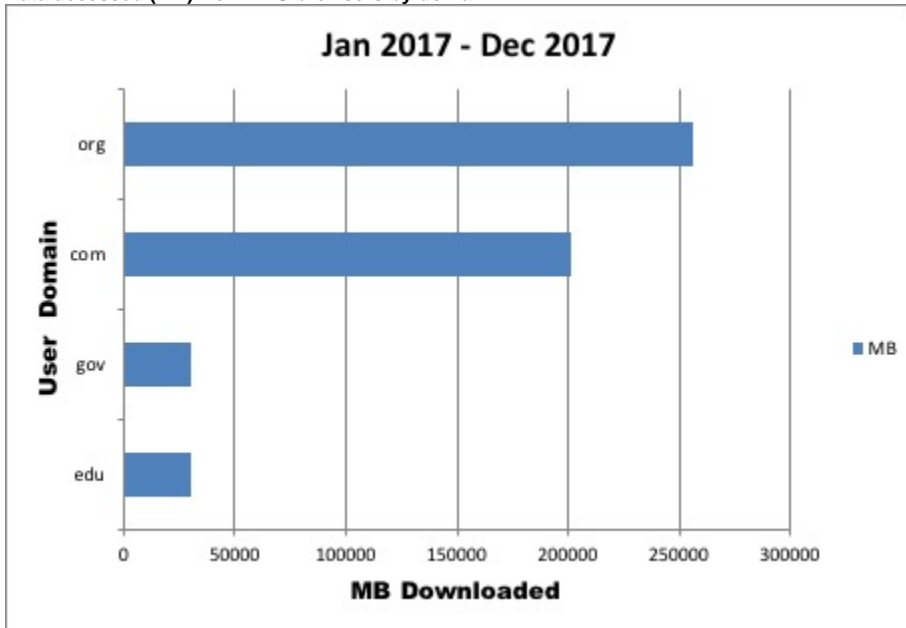
Overall Use

The amount of bandwidth used was divided into four (4) major groups: Government .gov users, private .com and .net users, Educational .edu institutions, and Organizations .org. The data was analyzed and bots were discarded to avoid skewing the data.

Data accessed (MB) from EVS browsers by domain

Domain	MB
org	256031
com	201510
gov	30318
edu	30293

Data accessed (MB) from EVS browsers by domain



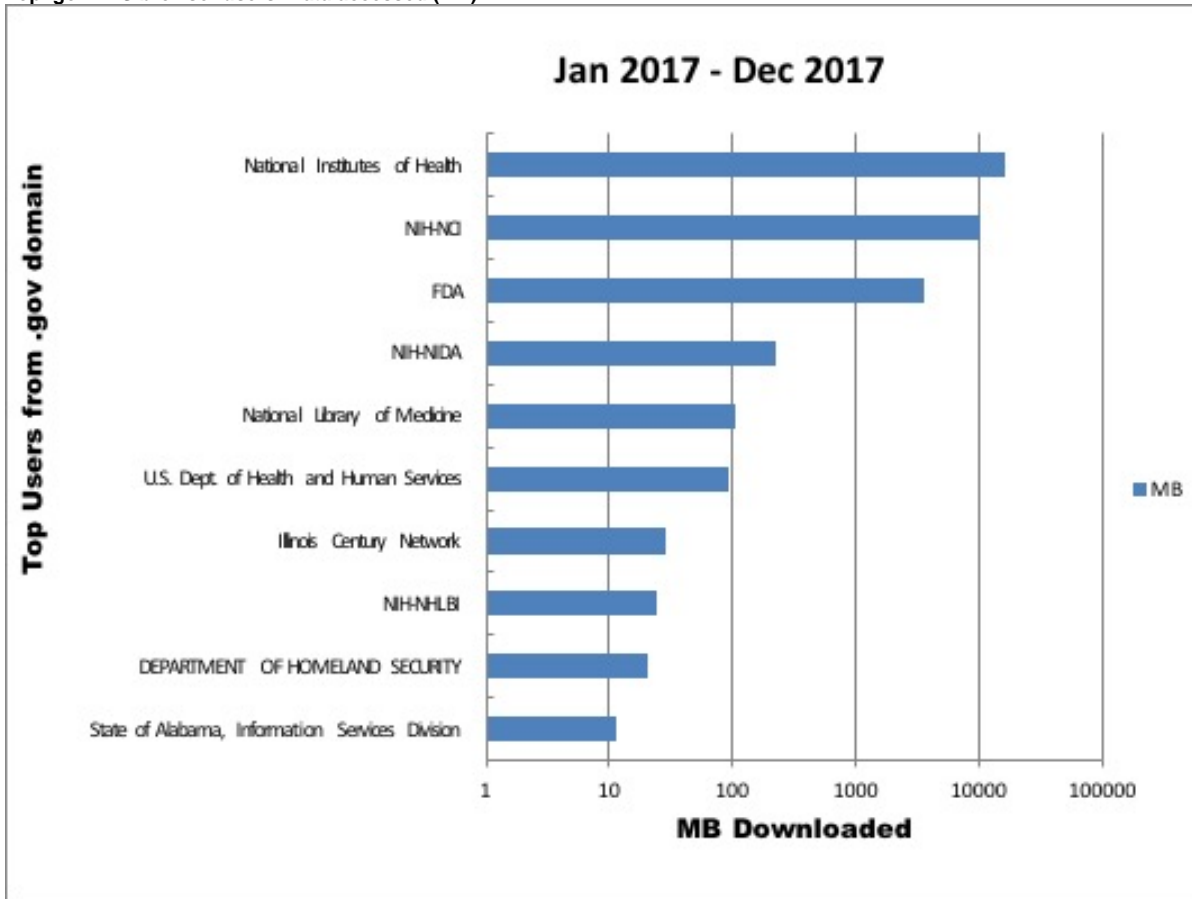
Users from .gov domain

The numbers below show the top government users of the EVS browsers, as measured by the MB of data that were accessed. Agency names have been provided where they are known. The main users are internal to NCI and NIH, which is not surprising, but we have substantial FDA usage as well.

Top .gov EVS browser users: Data accessed (MB)

Organization	MB
National Institutes of Health	16102
NIH-NCI	9992
FDA	3518
NIH-NIDA	220
National Library of Medicine	104
U.S. Dept. of Health and Human Services	91
Illinois Century Network	28
NIH-NHLBI	24
Department of Homeland Security	21
State of Alabama, Information Services Division	12

Top .gov EVS browser users: Data accessed (MB)



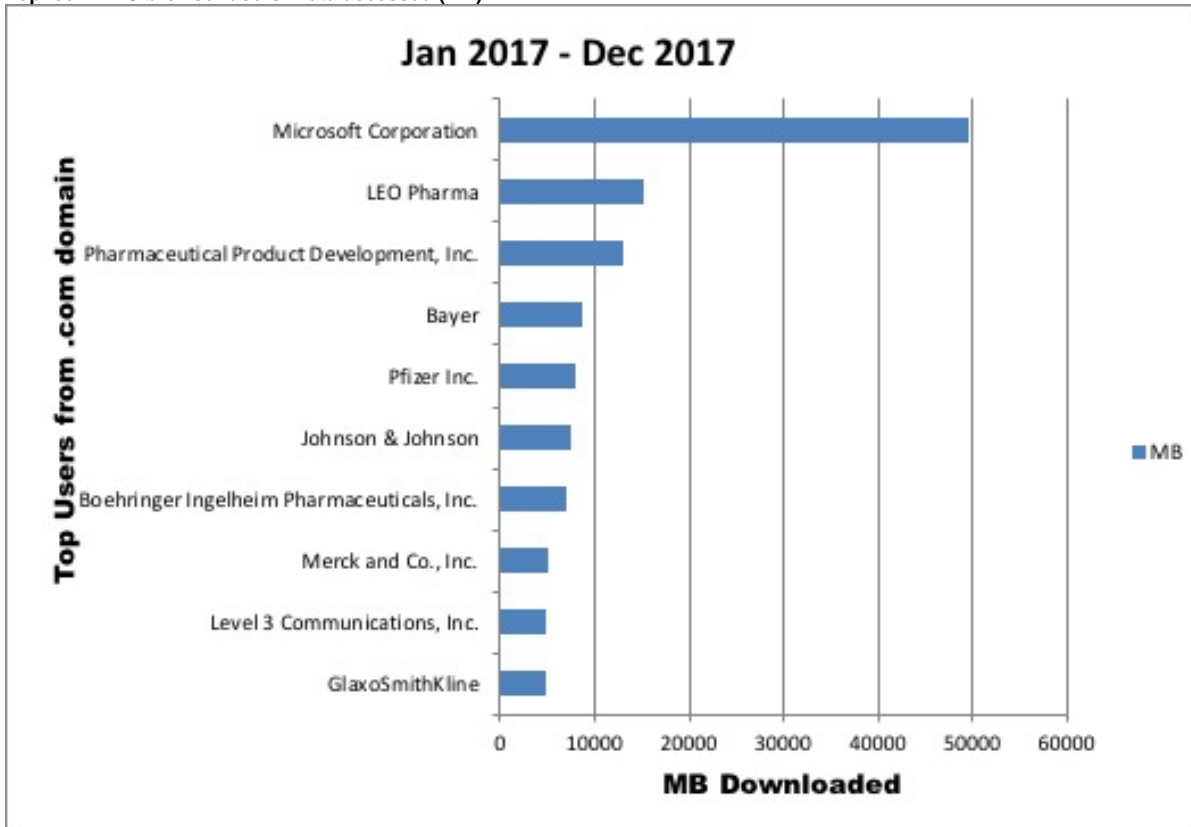
Users from .com domain

We combined the .net and .com users into one group as both contained a number of private corporations and individual users from a wide variety of internet service providers (ISPs). Business names have been provided where known. The graph below does not show ISPs as they are not interpretable and dwarf the next largest groups.

Top .com EVS browser users: Data accessed (MB)

Business	MB
Microsoft Corporation	49478
LEO Pharma	15236
Pharmaceutical Product Development, Inc.	13037
Bayer	8735
Pfizer Inc.	7918
Johnson & Johnson	7431
Boehringer Ingelheim Pharmaceuticals, Inc.	6954
Merck and Co., Inc	5078
Level 3 Communications, Inc	4842
Glaxo SmithKline	4819

Top .com EVS browser users: Data accessed (MB)



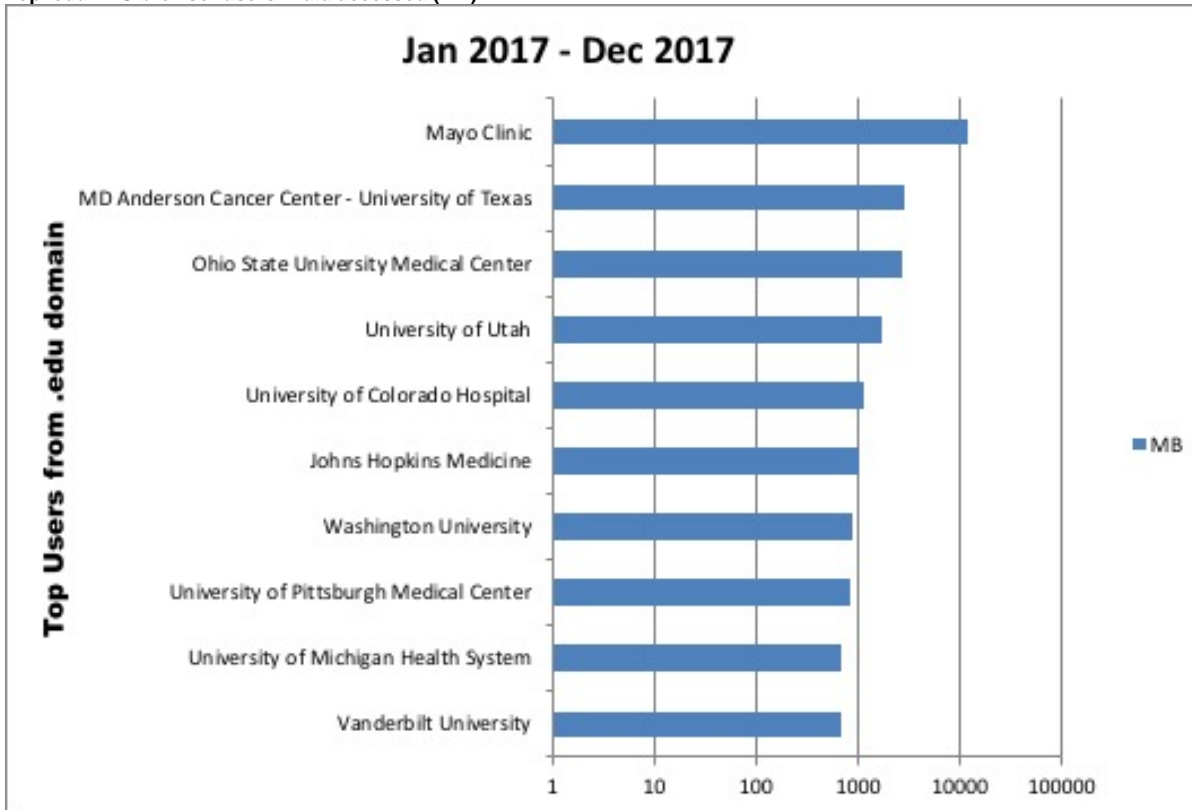
Users from .edu domain

The edu users were widely distributed across many American universities and a small selection of foreign institutions.

Top .edu EVS browser users: Data accessed (MB)

Institution	MB
Mayo Clinic	11885
MD Anderson Cancer Center - University of Texas	2865
Ohio State University Medical Center	2743
University of Utah	1694
University of Colorado Hospital	1122
Johns Hopkins Medicine	1038
Washington University	891
University of Pittsburgh Medical Center	842
University of Michigan Health System	688
Vanderbilt University	684

Top .edu EVS browser users: Data accessed (MB)



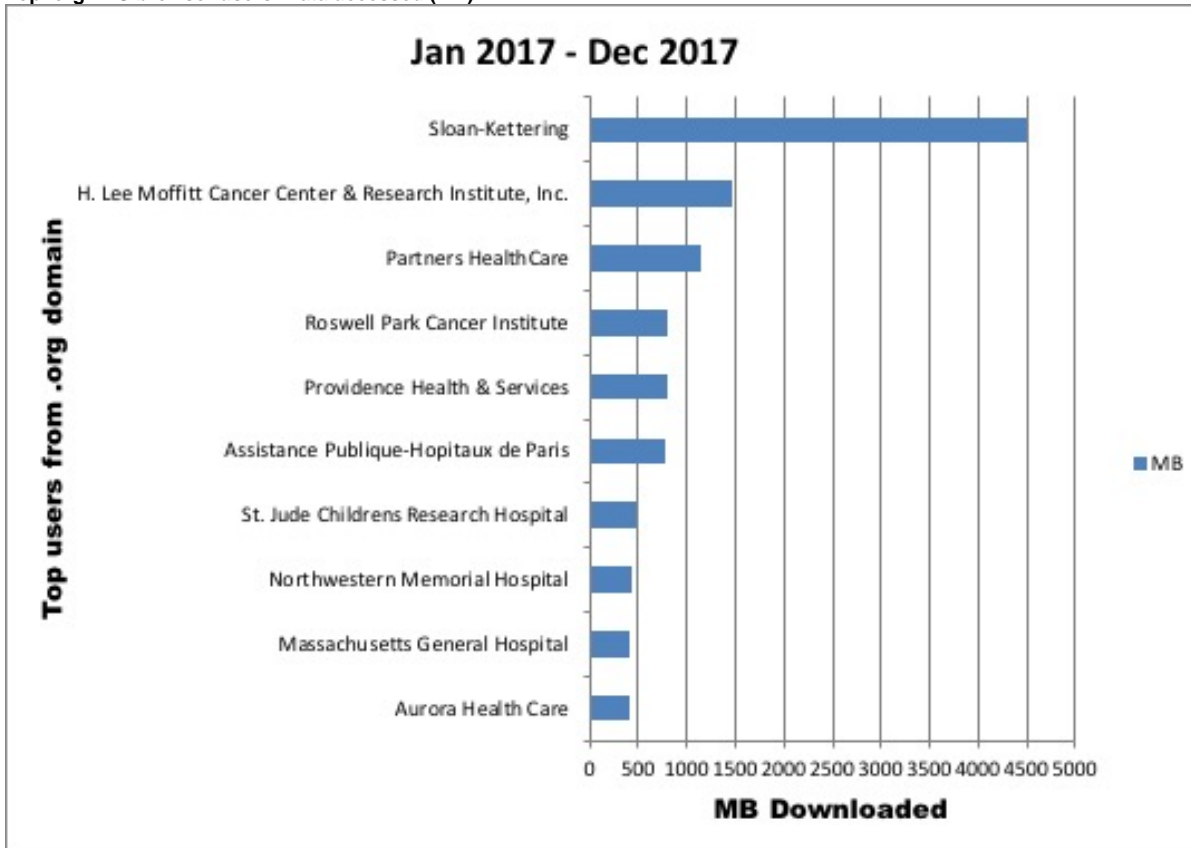
Users from .org domain

Like the .edu users, the .org users were widely distributed across a variety of organizations.

Top .org EVS browser users: Data accessed (MB)

Organization	MB
Sloan-Kettering	4498
H. Lee Moffitt Cancer Center	1464
Partners HealthCare	1138
Roswell Park Cancer Institute	799
Providence Health & Services	799
Assistance Publique-Hopitaux de Paris	786
St. Jude Childrens Research Hospital	471
Northwestern Memorial Hospital	443
Massachusetts General Hospital	413
Aurora Health Care	408

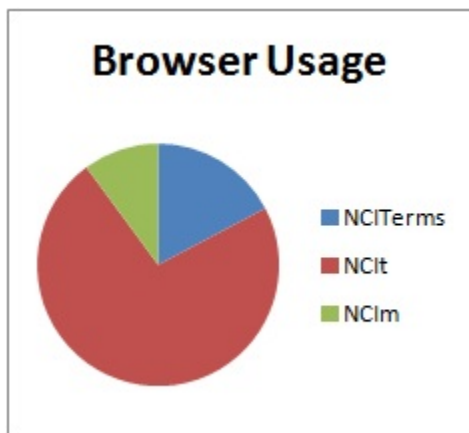
Top .org EVS browser users: Data accessed (MB)



Usage Patterns of the Three EVS Browsers

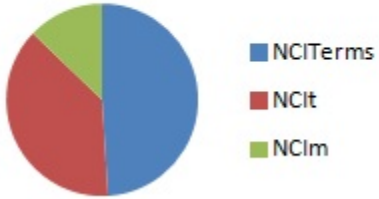
The three browsers offered by EVS are

NCITerms	NCI Term Browser: Access to all terminologies, value sets and mappings.
NCIt	NCI Thesaurus Browser: Now just one face of NCITerms, but the most used and counted separately.
NCIm	NCI Metathesaurus Browser: A separate application, searchable from NCITerms.

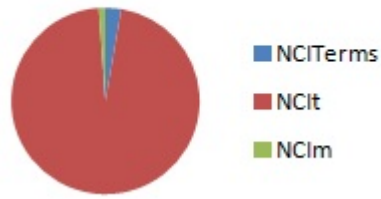


Nearly 75% of all use goes to the NCIt browser, including almost all use from the educational domain and two thirds of government use. By contrast, half of commercial domain use goes to NCI Terms, while .org use is almost evenly split between all three browsers.

COM



EDU



GOV



ORG

