Google Search Mastery Basics

Abstract

Effective Internet search skills are essential with the continually increasing amount of information available on the Web. Extension personnel are required to find information to answer client questions and to conduct research on programs. Unfortunately, many lack the skills necessary to effectively navigate the Internet and locate needed information. Basic search skills are outlined as well as application to Extension.

Paul Hill
Extension Assistant
Professor
St. George, Utah
paul.hill@usu.edu

Stacey MacArthur
Extension Assistant
Professor
Logan, Utah
stacey.macarthur@usu.edu

Nick Read
Extension Assistant
Professor
Provo, Utah
nick.read@usu.edu

Utah State University

Introduction

Research has shown that people generally lack the skills to effectively search for needed content on the Internet (Hargittai, 2002a; Hargittai, 2002b). In addition, Thomas and O'Sullivan (2005) found that students searching for Internet content showed difficulty narrowing searches, discerning useful links, and using effective keywords.

Google's mission is to organize the world's information and make it universally accessible and useful (Mission of Google). "In a world where access to data was always limited, the ability to remember what you were taught, without fresh access to all the data, was a critical success factor" (Godin, 2012). Access to data is no longer limited by memory. Search skills are essential in today's connected age, and knowledge of how to utilize Google Search is necessary to those skills. Developing search skills will help you find, organize, and leverage information faster—thereby increasing productivity and improving your quality of life online. Disseminating and teaching search skills presents a creative opportunity for Extension professionals to serve a new generation of clients who are increasingly reliant on the Internet, which is described by Andreeson (2011) as being in an age where "software is eating the world."

Extension personnel are routinely required to locate and make use of content on the Internet to both answer client questions and review journal articles in conducting research. This article outlines the basics of performing effective searches so Extension professionals become more savvy Internet searchers.

Google Search Basics

Google returns over 5.1 billion daily global searches. This increase is up from only 60 million back in 2000 (Google Annual Search Statistics, 2013). Today, nearly everyone googles something…everyday. Most people would benefit from conceptual instruction on how search engines organize and retrieve information (Kolowich, 2011). The *Ethnographic Research in Illinois Academic Libraries Project* conducted a 2-year study of the research skills of college students and concluded that while many are familiar with conducting simple searches on Google, they have a hard time doing more sophisticated research online despite having grown up using the Internet and other technology (Dwyer, 2011). Andrew D. Asher, an author of the study, stated:

> Many students are not gaining the information literacy skills in college that they will need in their future careers…This isn't just about doing academic research, but also about being a savvy, reflective, and critical consumer of information.

Without a solid foundation of Google Search skills it is easy to get lost in the Internet's vast sea of content. Effective googling is more complicated than you might imagine. The basics of Google Search described in Table 1 will not only enrich your googling experience, but also help you search smarter and faster (Basic Search Help, 2013).

Table 1.

Google Search Basics

Search Basics	Example	Notes
Keep it simple	[utah bike trails] [horse training tips] [lasagna recipe]	Start by typing the name of the place, thing, or idea you're searching for.
Only the important words	*Not so good:* [How do I bottle peaches?] [what is the 4-H motto?] *Better:* [peach preservation] [4-H motto]	Enter only relevant keywords, not a full sentence or question. All the words included will be used to find matching content, and too many words will limit results.
Add relevant	*First try:*	Add relevant words if you don't see

words	[utah weeds] [pig feed] *More relevant:* [utah knapweed] [pig feeding schedule] *Even more relevant:* [russian knapweed utah] [swine nutrition]	what you want after doing a simple search. Don't worry if it takes several attempts to find the right words to describe your search.
Words a website would use	*Not so good:* [why is my throat burning] [How do I start a garden] *Not so great:* [my throat hurts] [starting a garden] *Better:* [sore throat] [gardening]	The words in your search correspond with the words appearing in pages on the Internet. "Sore throat" is the term that informative Web pages are more likely to use.
Employs synonyms automatically	[eradicate grasshoppers] will also return search results for [eliminate] and [remove] and [kill] and [exterminate]	"Quotes" around the word or phrase tells Google to match the word/phrase exactly, thus disabling this feature.
Case insensitive	[Utah State Parks] is the same as [utah	The distinction of upper-case letters is commonly ignored.

	state parks]	
Ignores punctuation	{maker camp} or [maker camp] or (maker camp) or maker camp? are the same as maker camp	All of these symbols are generally ignored: @ # $ % ^ & * ( ) = + [ ] ? \
Ignores spelling	[emergancy preparednes] is the same as [emergency preparedness] *Google will display*: Showing results for **emergency preparedness**	Google will automatically default to the most common word for your spelling.
Acts as calculator	[(8*645)/(516)-9] [9x+6] it's a graphing calculator too	Use Google like a calculator by typing the math problem into the search bar.
Check flight times	[AA1782] or [Delta 1945]	Search for flight prices and flight departure and arrival using only airport codes.
Recipes	[chicken carrots and noodles]	Enter specific ingredients, then click "Recipes" on the top panel to view recipe results.
Check local movies	[man of steel 84780]	Find movie times at a local theater.
Note: terms within [brackets] indicate search term examples.		

Exceptions

Irregularities exist because people search in different ways. Symbols and punctuation are predominantly ignored, but as people's search routines evolve, Google will adapt its parameters accordingly (Punctuation and symbols in search, 2013). Table 2 provides explanations about how various symbols are recognized in Google's Search.

Table 2.
Symbols and Punctuation in Google Search

Symbol	Notes
underscore symbol (_)	Connects two words, such as: [quick_sort]. Search results will display these words either linked together (i.e., quicksort) or connected by an underscore (i.e., quick_sort).
hashtag/number sign (#)	Search for trending topics indicated by hashtags like [#youthSTEM].
dollar sign ($)	Displays price - [canon 900] and [canon $900] will produce different search results.
percent (%)	Search for a percent value [8% of .40] or [60% of 75].
ampersand (&)	Use to find highly connected groups of words and ideas: [friends & family] or [G&E].
plus sign (+)	Search for things such as: blood type [O+] or Google+ pages like [+Make].
"at" sign (@)	Search for tags/profiles in social networks like Twitter and Instagram: [@4Hpro] or [@4HNickRead] or [@usuextension]

Application for Extension

Extension professionals are not realistically expected to know all of the answers to client questions, only to have access to them. Extension has the responsibility to quickly provide unbiased, research-based information to clients. When responding to client inquiries, Extension personnel can also pass on search skills so clients can learn to find their own answers more effectively, thereby improving service. Teaching search skills to clients one-on-one, in workshops, and/or at conferences is an opportunity for Extension to provide relevant, 21st century, tech-literacy education. Search is a skill every critical thinker needs to have in order to improve independent learning.

Conclusion

Google Search's query language recognizes dozens of options and combinations that will refine a search. By experimenting with the basics of search, Extension personnel can become more proficient in retrieving and making use of the world's information to respond to client questions and to conduct research. The importance of teaching search skills and providing support for learners is endorsed by Scott and O'Sullivan (2005) to help others become efficient using search strategies.

References

Andreeson, M. (2011, August 20). *Why software is eating the world* . Retrieved from: http://online.wsj.com/article/SB10001424053111903480904576512250915629460.html

Google Annual Search Statistics. (2013). Retrieved from: http://www.statisticbrain.com/google-

searches/

Hargittai, E. (2002a). Beyond logs and surveys: In-depth measures of people's web use skills. *Journal of the American Society for Information Science and Technology* , 53(14).

Hargittai, E. (2002b). Second-level digital divide: Differences in people's online skills. *First Monday*, 7(4).

Inside Search: Basic Search Help. (2013). Retrieved from: https://support.google.com/websearch/answer/134479

Inside Search: Punctuation and Symbols in Search. (2013). Retrieved from: https://support.google.com/websearch/answer/2466433

Kolowich, S. (2011, August 22). *What students don't know* . Retrieved from http://www.insidehighered.com/news/2011/08/22/erial_study_of_student_research _habits_at_illinois_university_libraries_reveals_alarmingly_poor_information_literacy_and_skills

Scott, T. J., & O'Sullivan, M. K. (2005). Analyzing student search strategies: Making a case for integrating information literacy skills into the curriculum. *Teacher Librarian*, 33(1).