

# Web Search Basics

Introduction to Information Retrieval

INF 141/ CS 121

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Content adapted from Hinrich Schütze

<http://www.informationretrieval.org>



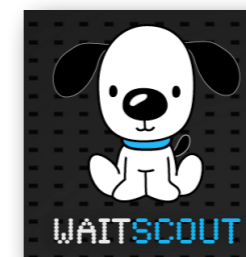
## : My Family

- I'm married and have four kids and live in UniHills
- I'm pretty open about my story



# : My Background

- B.S., Computer Science from Cornell (NY)
  - M.Eng, Electrical Engineering
- STRIKE Officer
  - USS CURTIS WILBUR, DDG-54, Japan
- Operations Officer
  - USS SIMON LAKE, AS-33, Italy
- Ph.D in Computer Science and Engineering at UW
- Director of the Laboratory for Ubiquitous and Interaction
- Co-founder of quub, whisper.fm, swayr, waitscout, audia



## : My Research

- Artificial Intelligence + Collapse Informatics + Ubiquitous Computing
- Example: I made a sensor system for babies in the NICU to detect cerebral palsy



## Overview

- Introduction
- Classic Information Retrieval
- Web IR
- Sponsored Search
- Web Search Basics
  - Size of the Web
- Web Users
- Spam

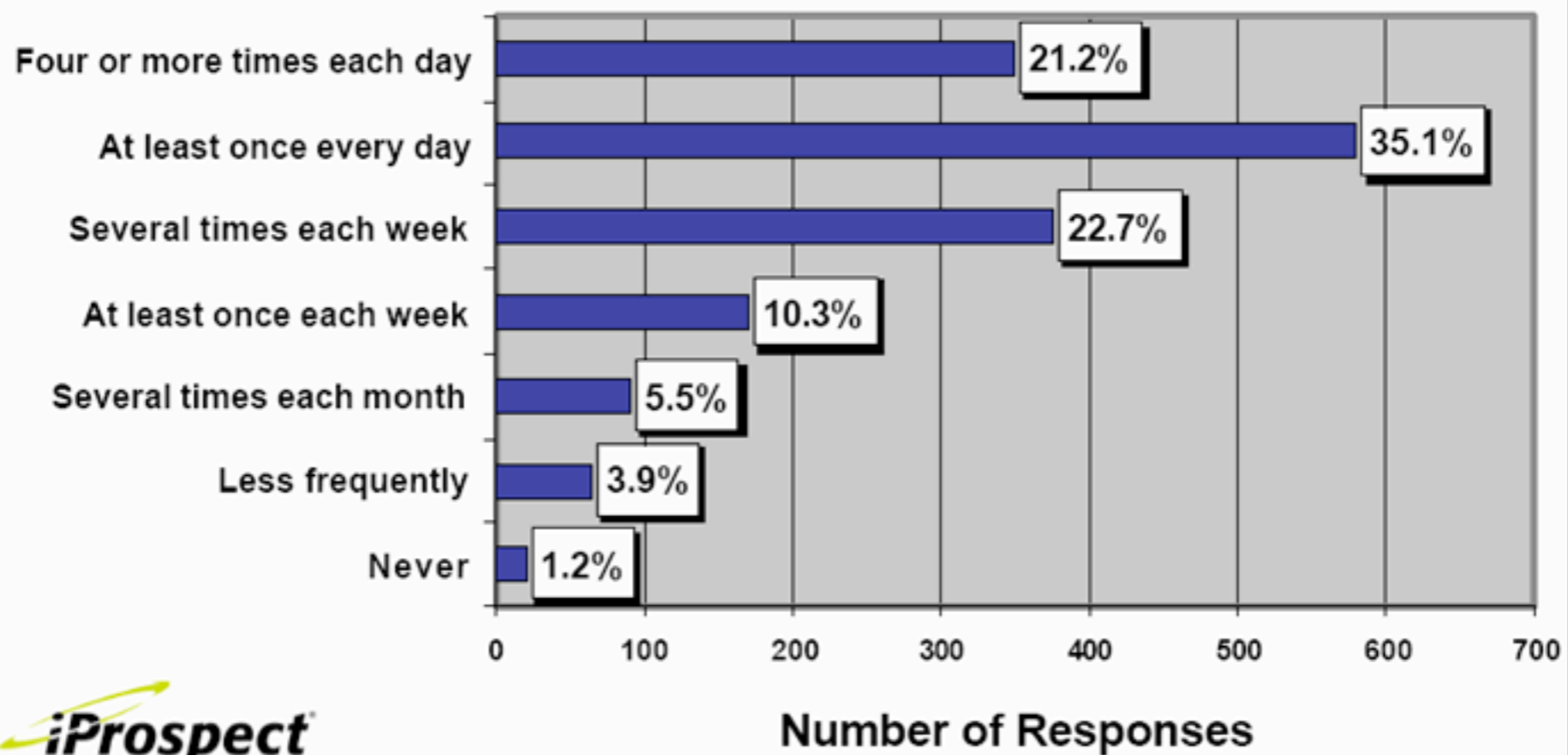


## Search use ...

(iProspect Survey, 4/04,

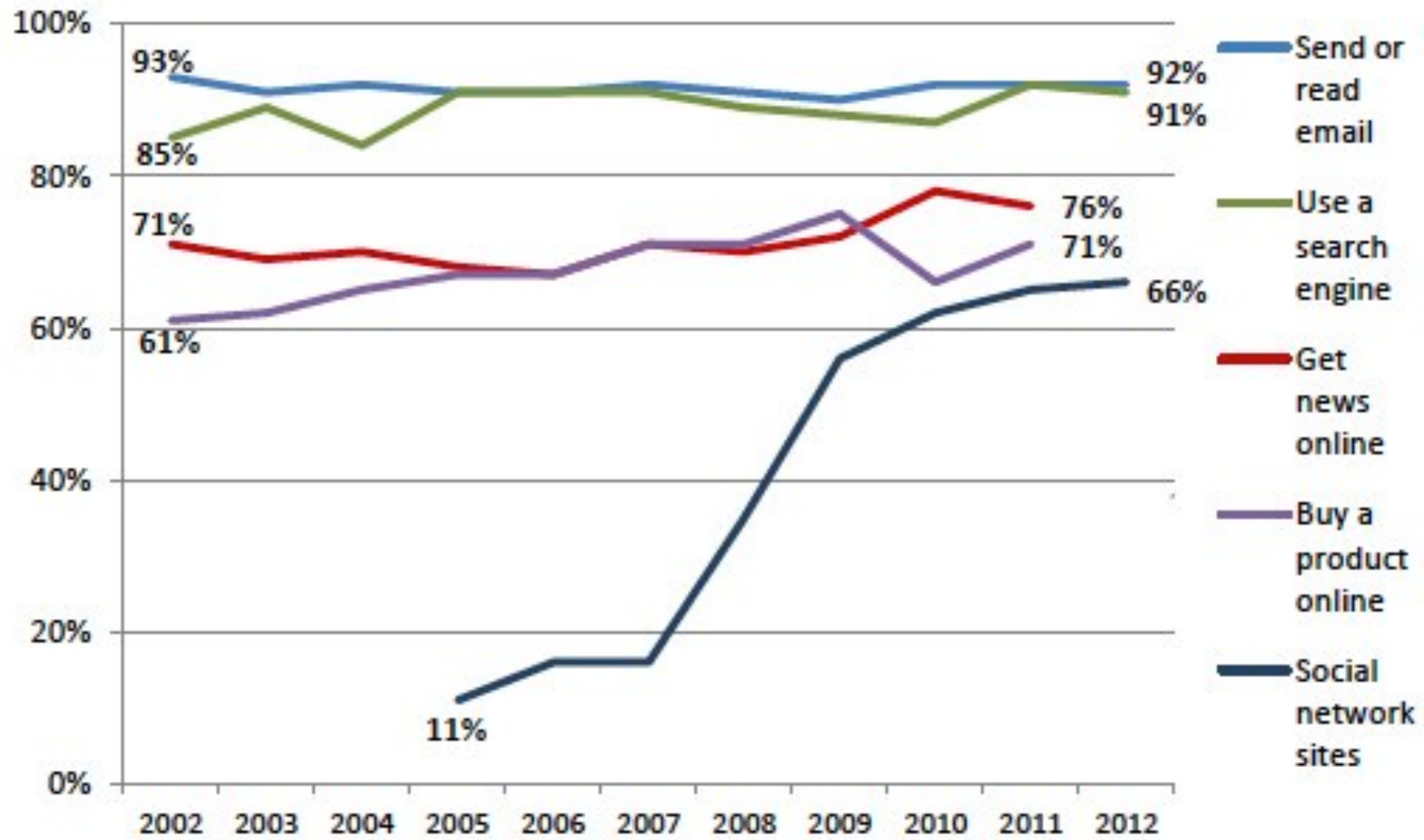
<http://www.iprospect.com/premiumPDFs/iProspectSurveyComplete.pdf>)

### How often do you use search engines on the Internet?



# Introduction

% of internet users who do each activity



## Who uses search?

*% of online adults in each group who use search engines*

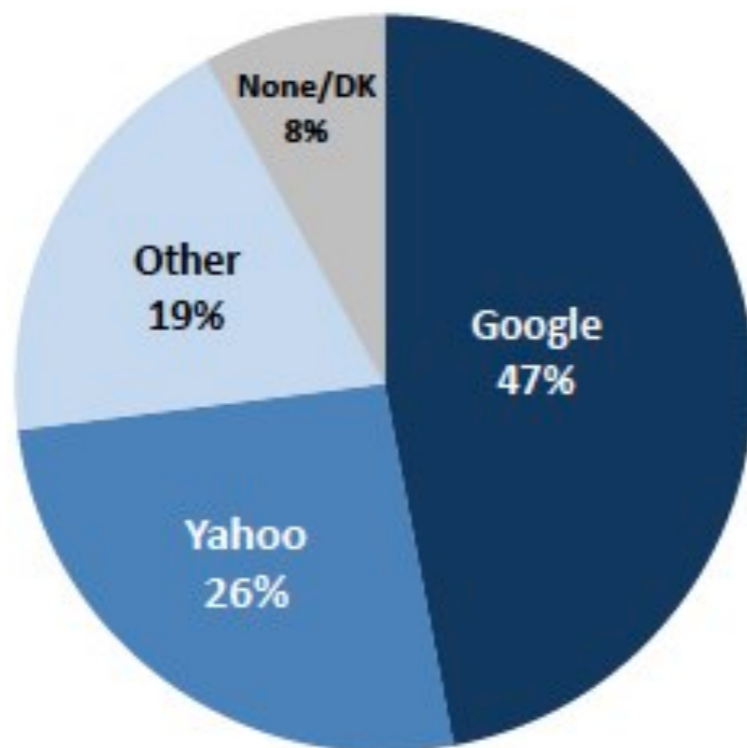
	% of each group who ever use search engines	% of each group who used a search engine yesterday
All online adults	91%	59%
<b>Gender</b>		
Male	90	59
Female	92	60
<b>Race/Ethnicity</b>		
White	93*	63*
African American	89*	44
Hispanic	79	44
<b>Age</b>		
18-29	96	66*
30-49	91	65*
50-64	92	52*
65+	80	38
<b>Education</b>		
Some high school	78	34
High school	88*	45*
Some college	94*	65*
College graduate	95*	74*
<b>Household income</b>		
< \$30,000	84	45
\$30,000 - \$49,999	93*	54*
\$50,000 - \$74,999	97*	66*
\$75,000+	95*	76*



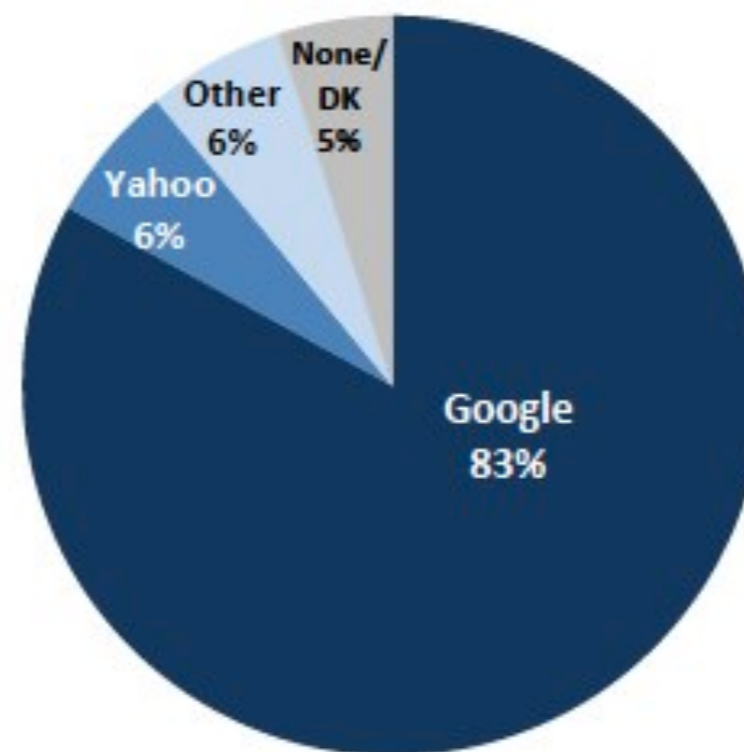
# Introduction

Google is far and away the search engine of choice, preferred by 83% of search users

*% of search users who answered the question: Which search engine do you use MOST OFTEN?*



2004

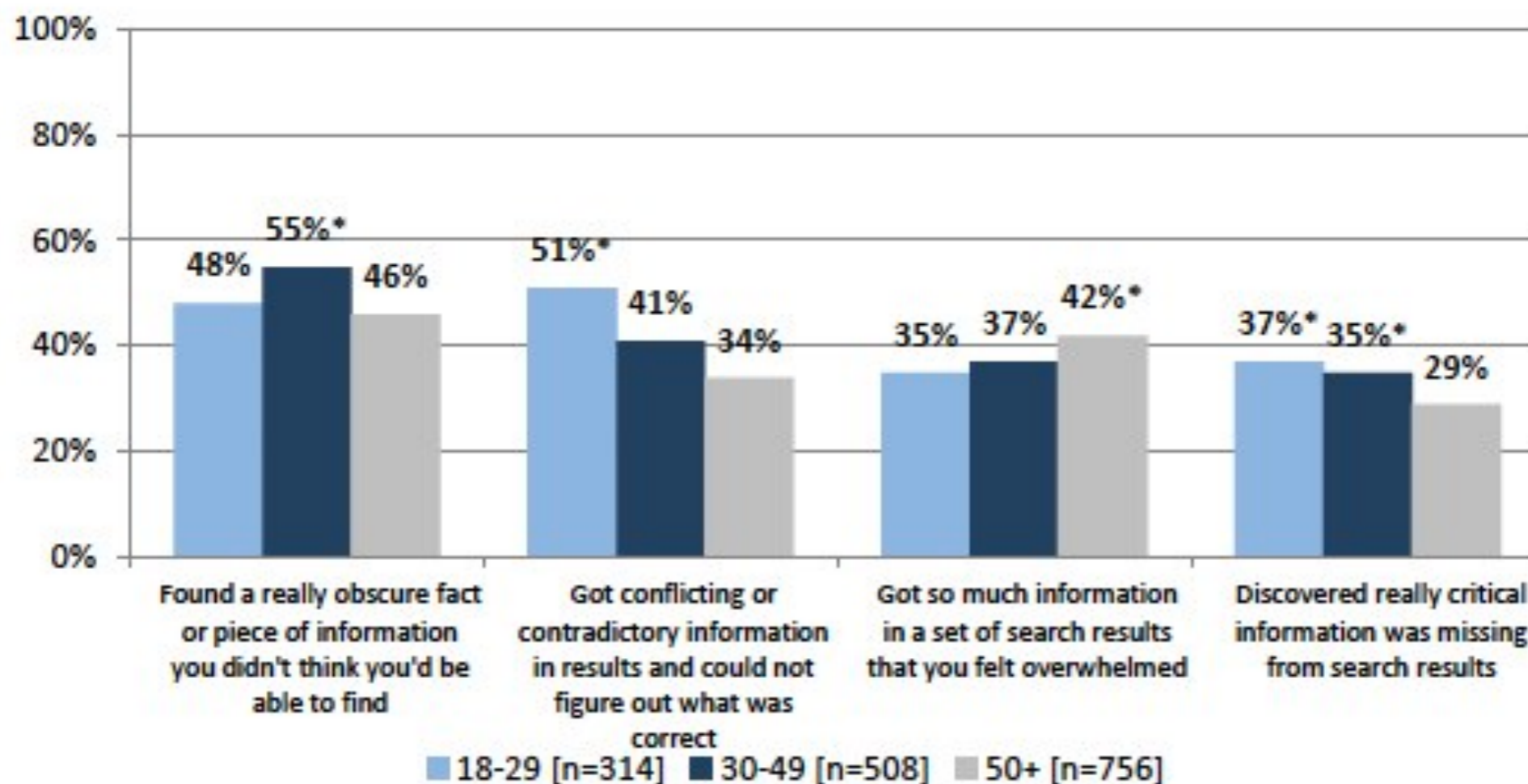


2012

Source: The Pew Research Center's Internet & American Life Project Winter 2012 Tracking Survey, January 20-February 19, 2012. N=2,253 adults, age 18 and older, including 901 cell phone interviews. Interviews conducted in English and Spanish.

## Some search users' experiences vary by age

% of each group who have experienced each of the following...



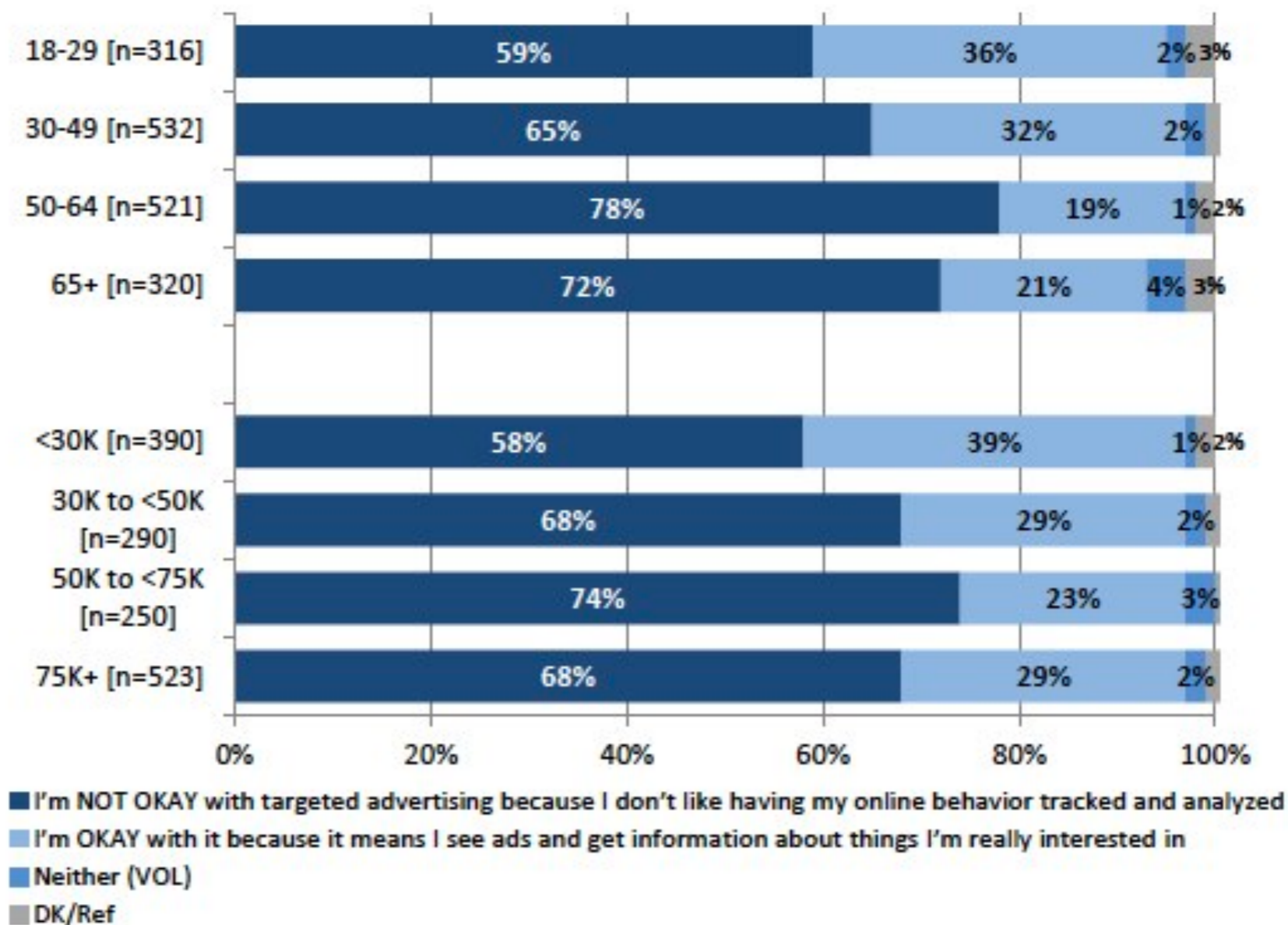
Source: The Pew Research Center's Internet & American Life Project Winter 2012 Tracking Survey, January 20-February 19, 2012. N=2,253 adults, age 18 and older, including 901 cell phone interviews. Interviews conducted in English and Spanish. An asterisk (\*) indicates a significant difference at the 95% confidence level.

# Introduction

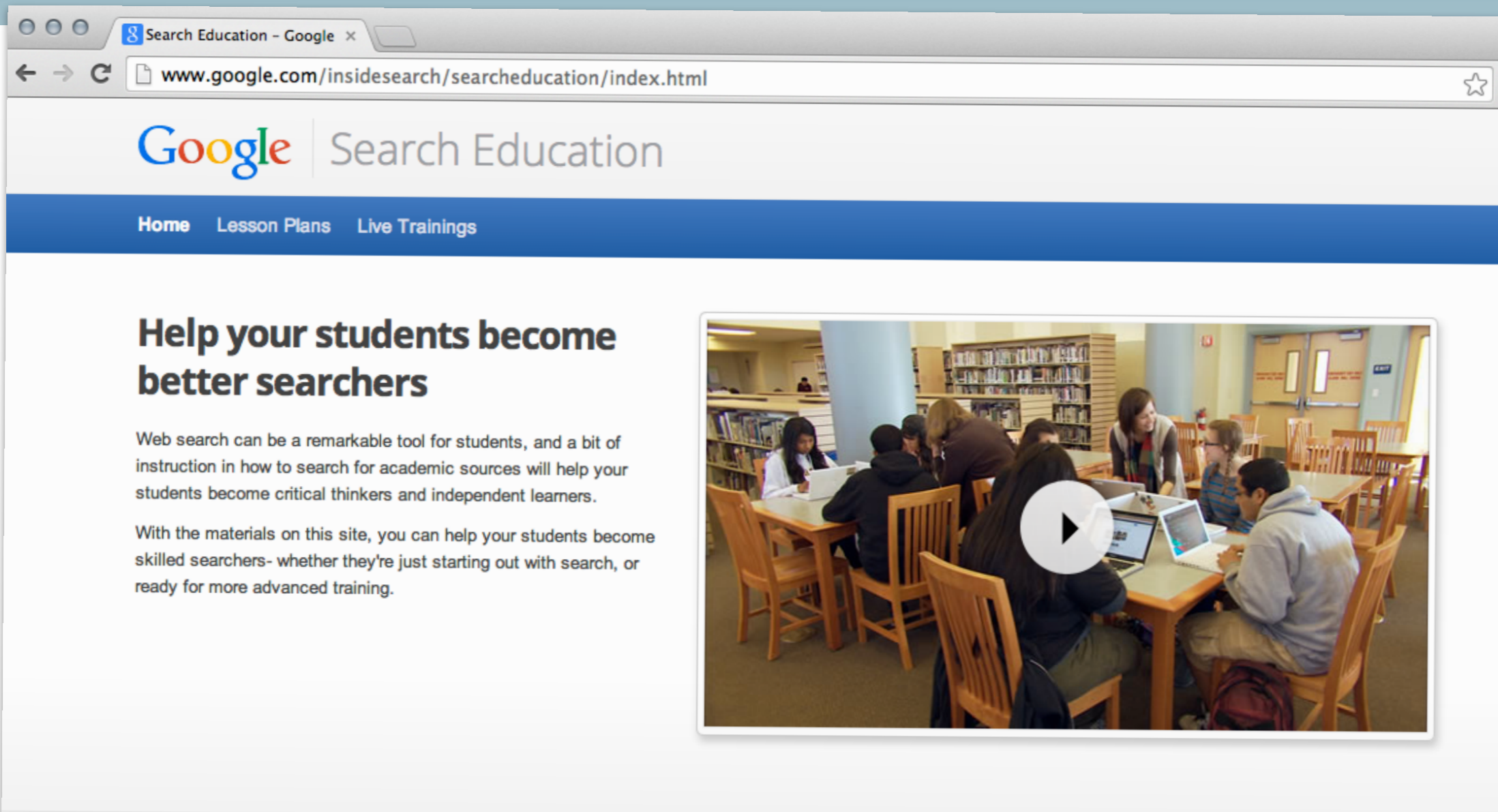
## Views of targeted advertising vary by age and income

Which of the following statements comes closest to how you, personally, feel about TARGETED ADVERTISING being used online – even if neither is exactly right?

Asked of adult internet users [n=1,729]



# Introduction



The screenshot shows a web browser window with the address bar containing "www.google.com/insidesearch/searcheducation/index.html". The page features the Google logo and the text "Search Education". A blue navigation bar contains links for "Home", "Lesson Plans", and "Live Trainings". The main content area has a heading "Help your students become better searchers" followed by two paragraphs of text. To the right of the text is a video player showing a group of students in a library setting. Below the main content are four colored boxes, each with an icon and a title: a green box with a book icon for "Lesson Plans & Activities", an orange box with a star icon for "Power Searching", a red box with a magnifying glass icon for "A Google a Day Challenges", and a blue box with a play button icon for "Live Trainings".

## Help your students become better searchers

Web search can be a remarkable tool for students, and a bit of instruction in how to search for academic sources will help your students become critical thinkers and independent learners.

With the materials on this site, you can help your students become skilled searchers- whether they're just starting out with search, or ready for more advanced training.



### Lesson Plans & Activities

Download lesson plans to develop your students' search literacy skills.

[Browse lesson plans](#)



### Power Searching

Improve your search skills and learn advanced tips with online lessons and activities.

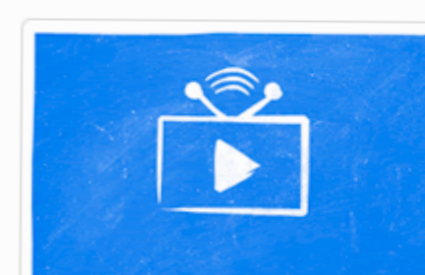
[Start now](#)



### A Google a Day Challenges

Put your students' search skills to the test with these trivia challenges.

[Browse challenges](#)



### Live Trainings

Join us for live search trainings or watch past trainings from search experts here at Google.

[Start training](#)