Web Search Basics

Introduction to Information Retrieval
INF 141/ CS 121
Donald J. Patterson

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 [illegible] 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

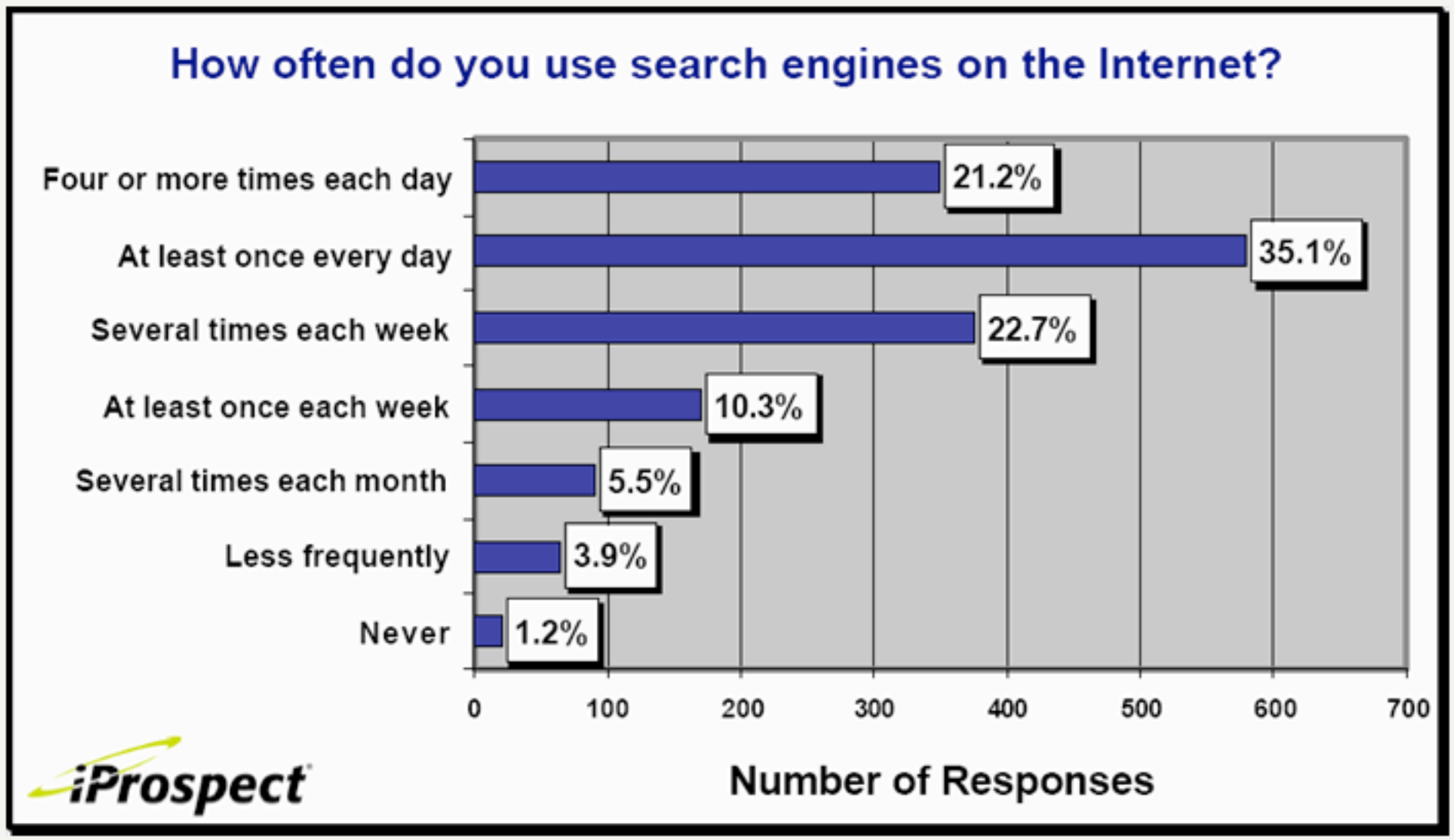
Overview

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

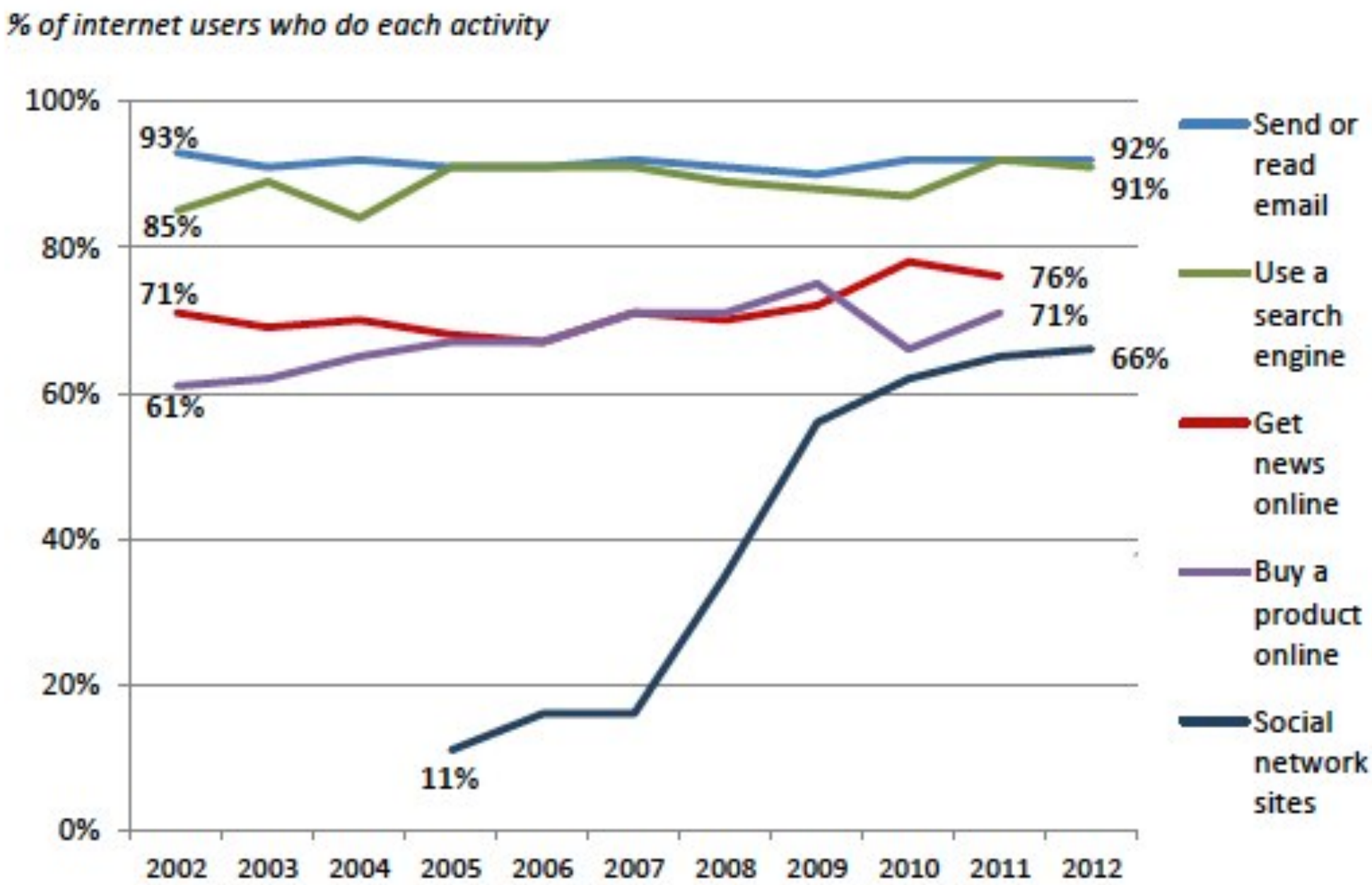
Introduction

Search use …

(iProspect Survey, 4/04,
http://www.iprospect.com/premiumPDFs/iProspectSurveyComplete.pdf)



Introduction



Pew Internet 2012

Introduction

Who uses search?

% of online adults in each group who use search engines

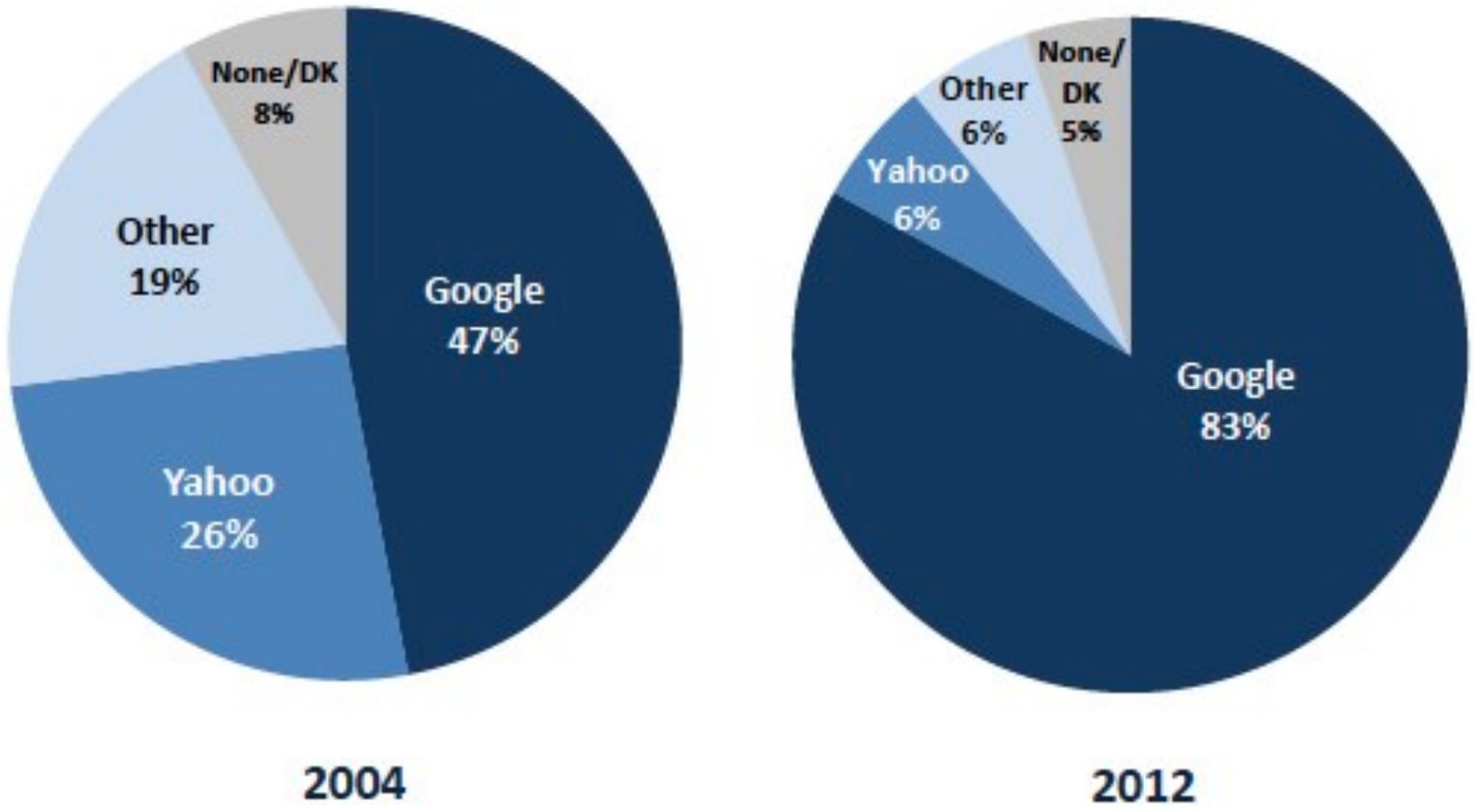
	% of each group who ever use search engines	% of each group who used a search engine yesterday
All online adults	91%	59%
Gender		
Male	90	59
Female	92	60
Race/Ethnicity		
White	93*	63*
African American	89*	44
Hispanic	79	44
Age		
18-29	96	66*
30-49	91	65*
50-64	92	52*
65+	80	38
Education		
Some high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

Pew Internet 2012

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?



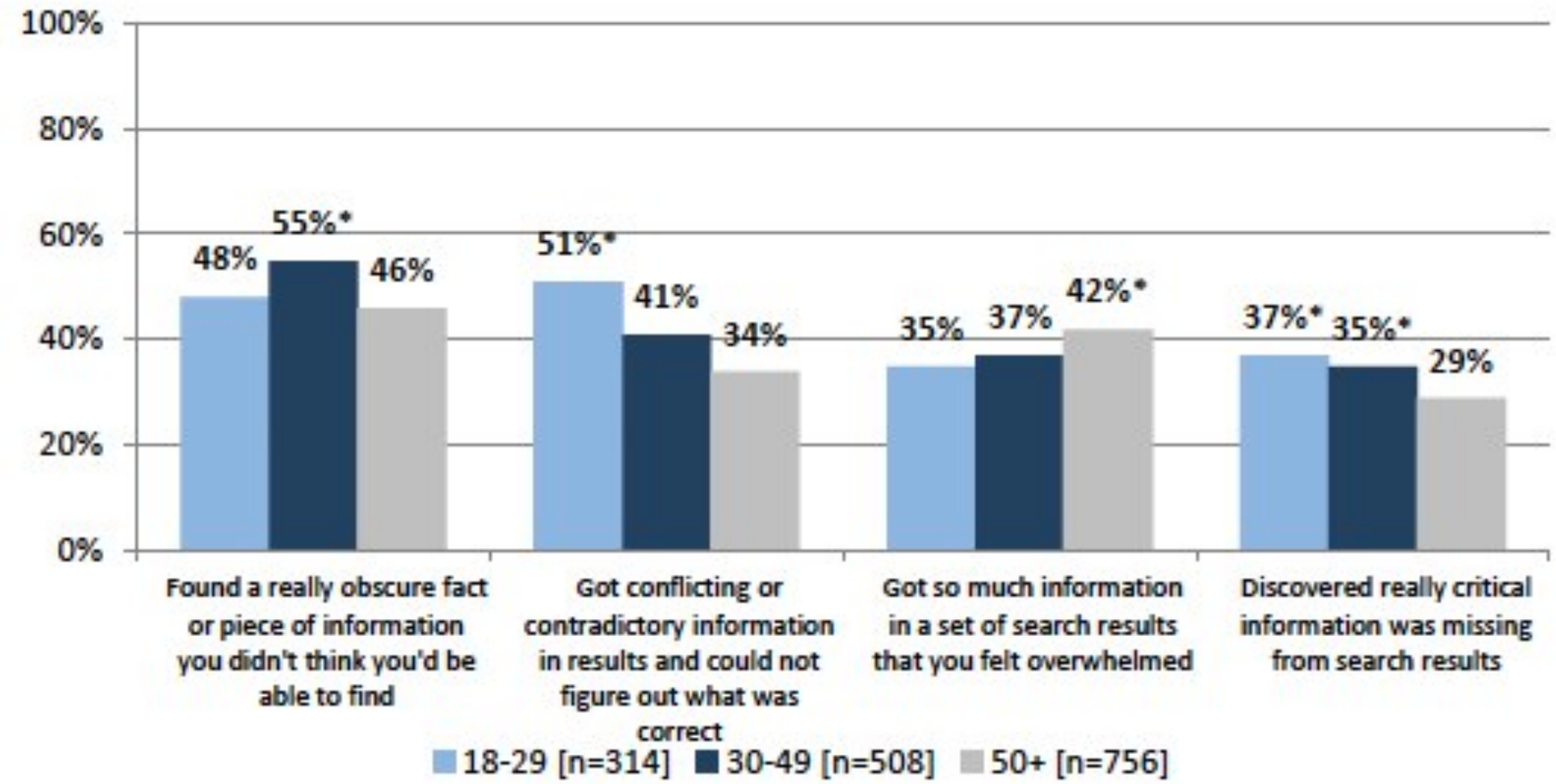
Source: The Pew Research Center's Internet & American Life Project Winter 2012 Tracking Survey, January 20-February 19, 2012. N=2,253 adults, age 18 and older, including 901 cell phone interviews. Interviews conducted in English and Spanish.

Pew Internet 2012

Introduction

Some search users' experiences vary by age

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



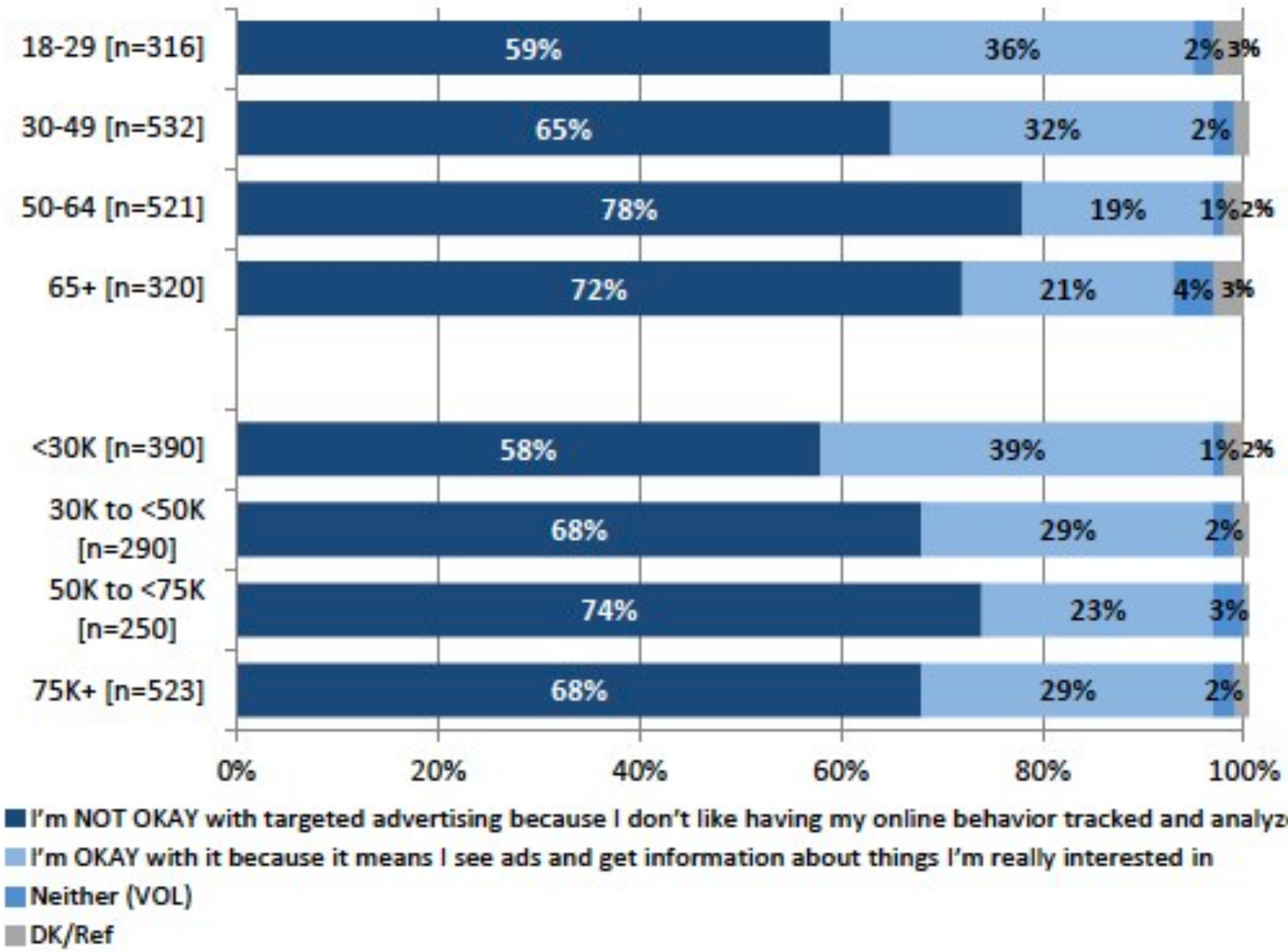
Source: The Pew Research Center's Internet & American Life Project Winter 2012 Tracking Survey, January 20-February 19, 2012. N=2,253 adults, age 18 and older, including 901 cell phone interviews. Interviews conducted in English and Spanish. An asterisk (*) indicates a significant difference at the 95%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

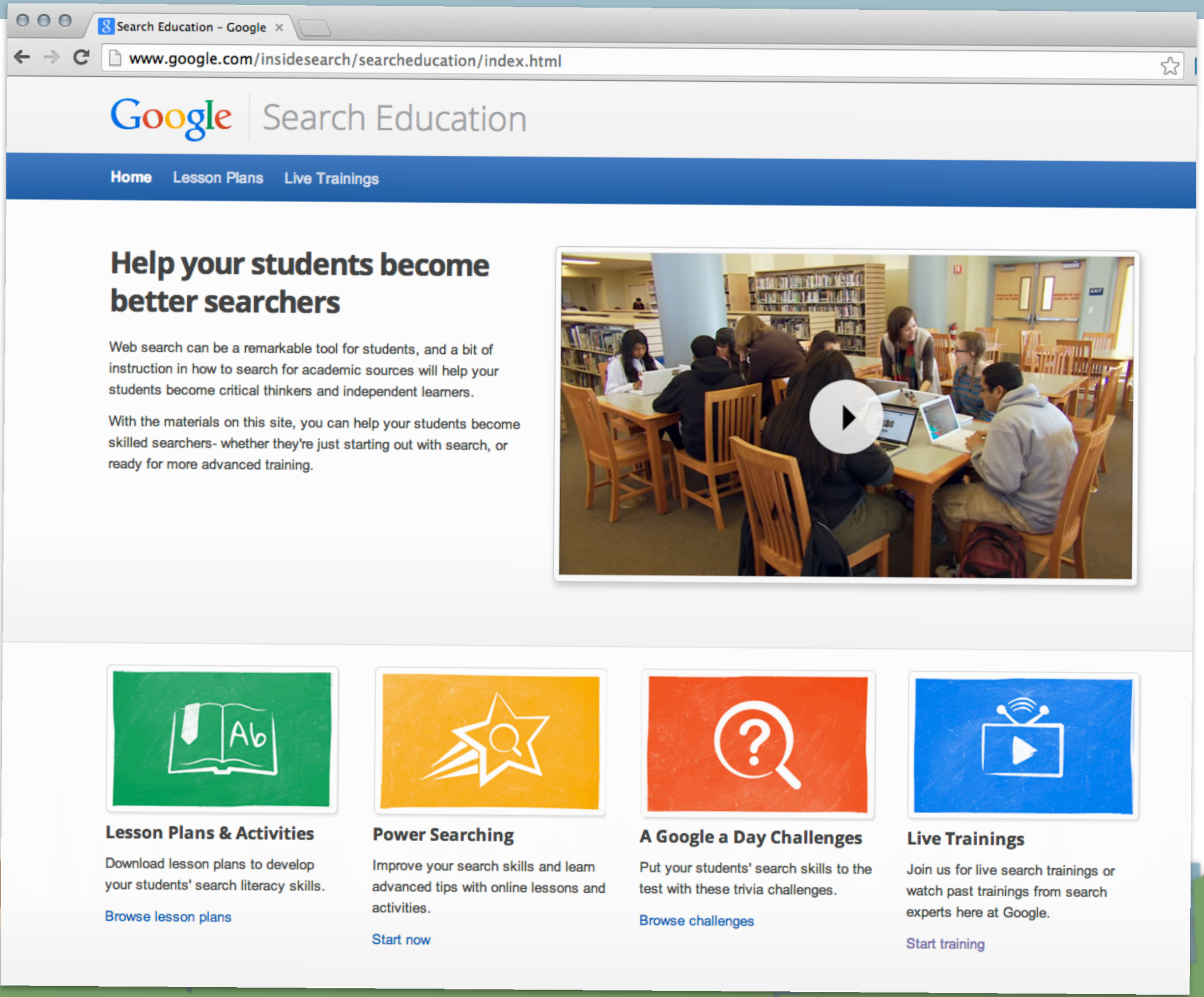
Introduction

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]



Pew Internet 2012

Introduction