

Representing Seniors in an Online National Probability Panel: *Measuring Technology Attitudes and Behaviors*

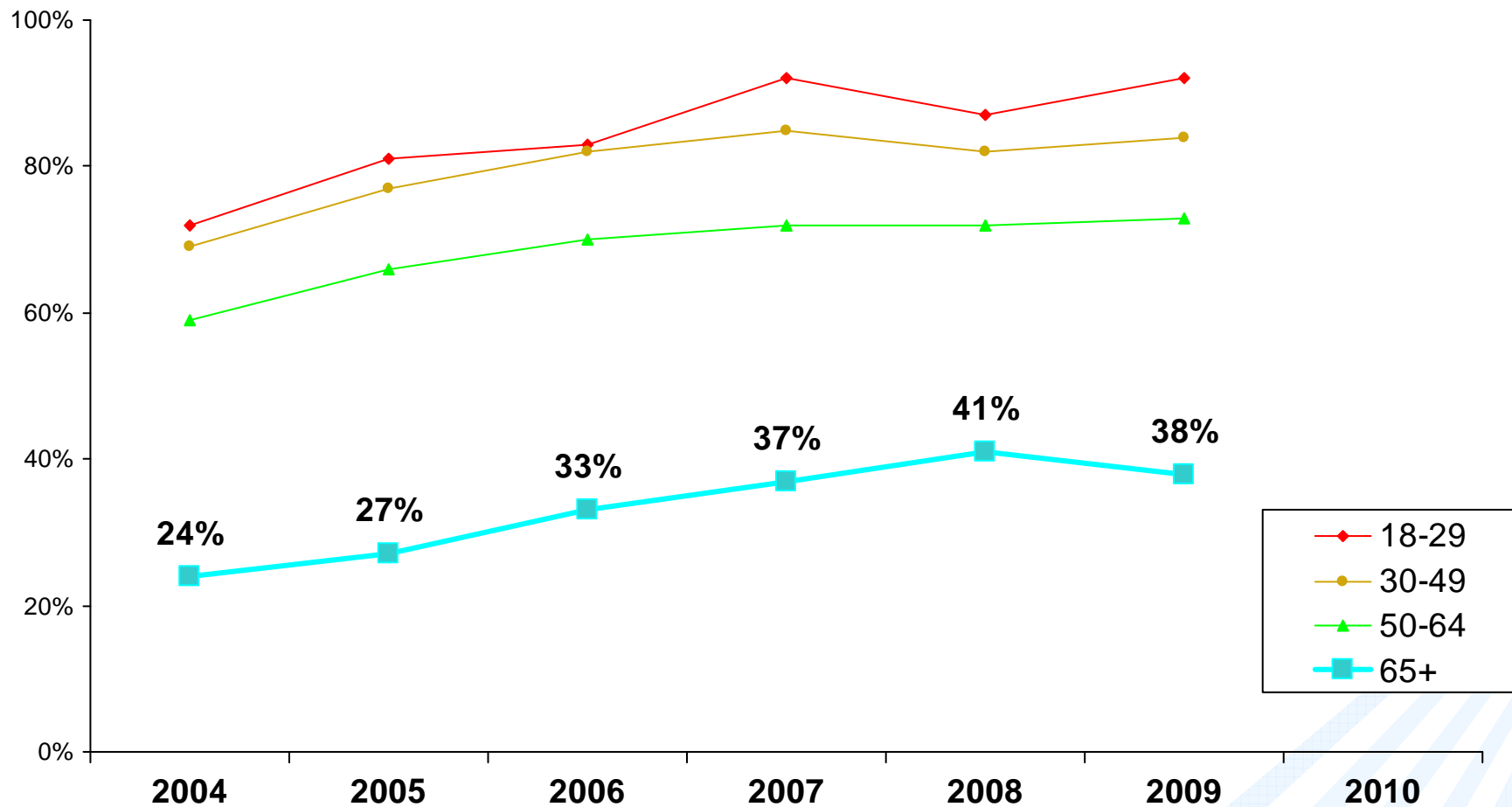
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Knowledge Networks

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Introduction

- 2 in 5 seniors (aged 65+) are currently online (Pew, 2009).
- Increase of 58% since 2004, yet still considerably below younger age groups.



Research Objectives

- Explore technology attitudes and behaviors of seniors compared to other age groups
- Identify differences in technology attitudes and behaviors among seniors who are on- or off-line
- Assess impact of participation in an online panel on the technology attitudes/behaviors of seniors

Research Questions

1. Are seniors' attitudes **less “pro-technology”** than those of younger age groups?
2. Are seniors **less likely to use** technology than do younger age groups?
3. Do seniors for whom KN provides an online connection & device have **less pro-technology** attitudes/behaviors than those who were already online?
4. Over time, do the attitudes/behaviors of seniors on the panel become **more pro-technology**?

Data Source

- KnowledgePanel, probability-based online panel designed to be representative of the entire United States population
- Address-based sampling (ABS) used since 2009 to supplement the RDD frame in response to growing number of cell-phone only households
- Non-Internet households are provided with laptop and Internet access
- Active panel members are notified of available surveys through email invitations
- Modest incentive program to encourage participation and create member loyalty (free use of laptop and Internet or member points, usually worth \$1 per survey)

Measures

- 22 variables from Computer Usage profile survey
- Computer Usage profile survey conducted among panel members in 2008 and again in 2009

Topic	# of questions
Attitudes about technology	6
Number of computers in home (% zero)	1
Type of Internet connection (% dial-up/Web-TV)	1
Cell phone NON-ownership (% without a cell phone)	1
Online behaviors (% done regularly)	13
Total	22

Note: Full text of questions appears at the Appendix. Charts include shortened response items to save space.

Sample for Current Analysis

- 26,041 adult KnowledgePanel members
- Active as of Nov 2008, includes 5,061 seniors
- English-language panelists
- Completed both Computer Usage profile surveys
- Majority of data were collected in Nov/Dec 2008 and Nov/Dec 2009
- Questions on computer activities were not asked of panelists for whom KN provided access to the Internet
- Cross-time analysis was further restricted to 616 seniors who completed the first Computer Usage profile survey within their first 12 months on the panel *and* who completed the second wave of the survey
- Panelists are weighted to CPS benchmarks to be representative of the U.S. population on age, gender, race, Hispanic ethnicity, region, metro status, and education using post-stratification adjustments to offset any non-response or non-coverage bias

Sample Sizes for Analyses

	Unweighted N	(Weighted N)
Research Questions 1 & 2		
Age 18-29	2,037	(5,679)
Age 30-44	5,972	(6,986)
Age 45-64	12,971	(9,108)
Age 65+ (Seniors)	5,061	(4,267)
Research Question 3		
Seniors: KN provided Internet	843	(1824)
Seniors: Self-provided Internet	4,218	(3,237)
Research Question 4		
Seniors: Completed both surveys and completed Time 1 survey within 1 year of joining panel	616	(584)

Specific numbers will vary for each analysis due to item non-response

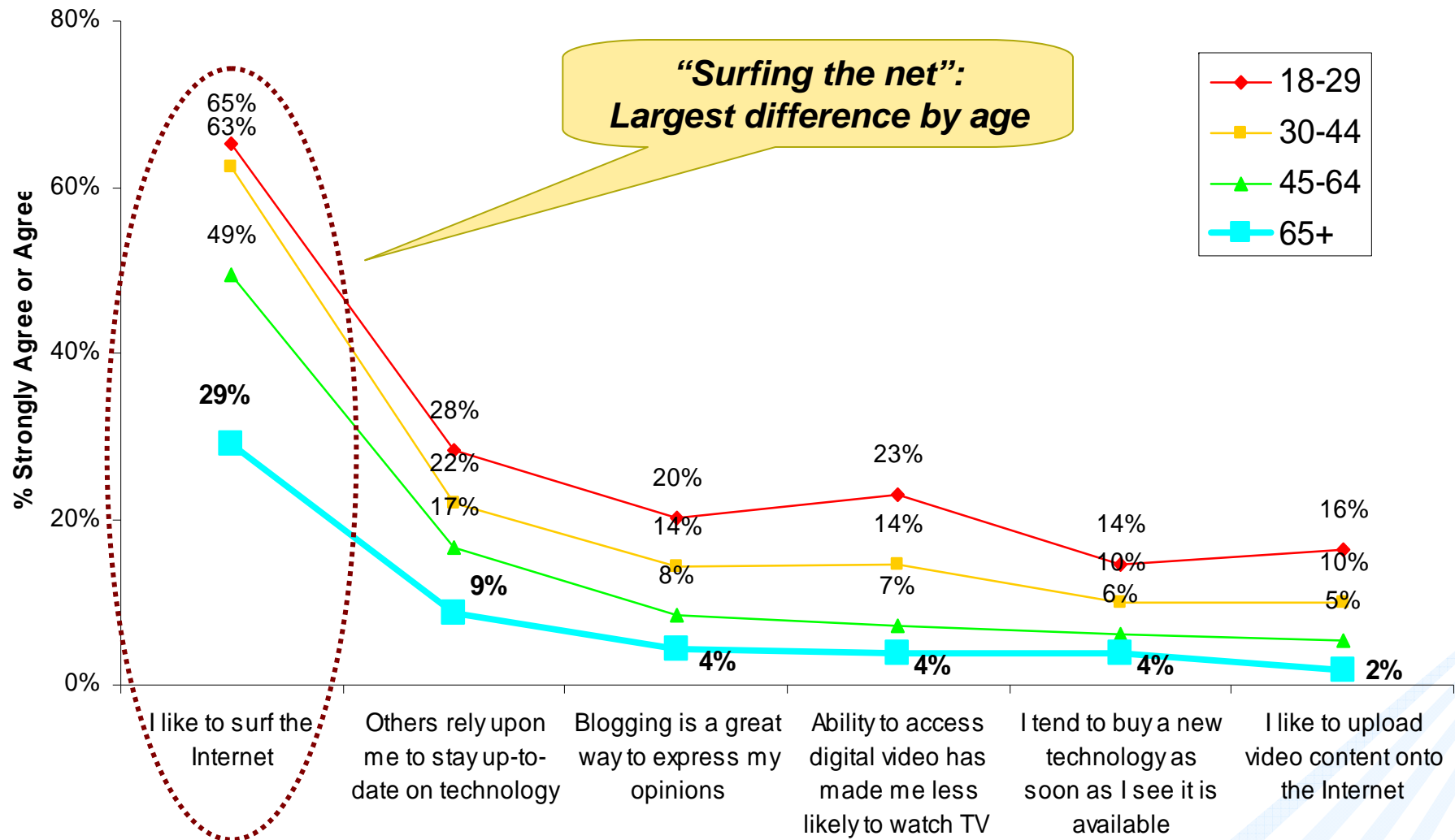
Results

Technology Attitudes and Behaviors
by Age



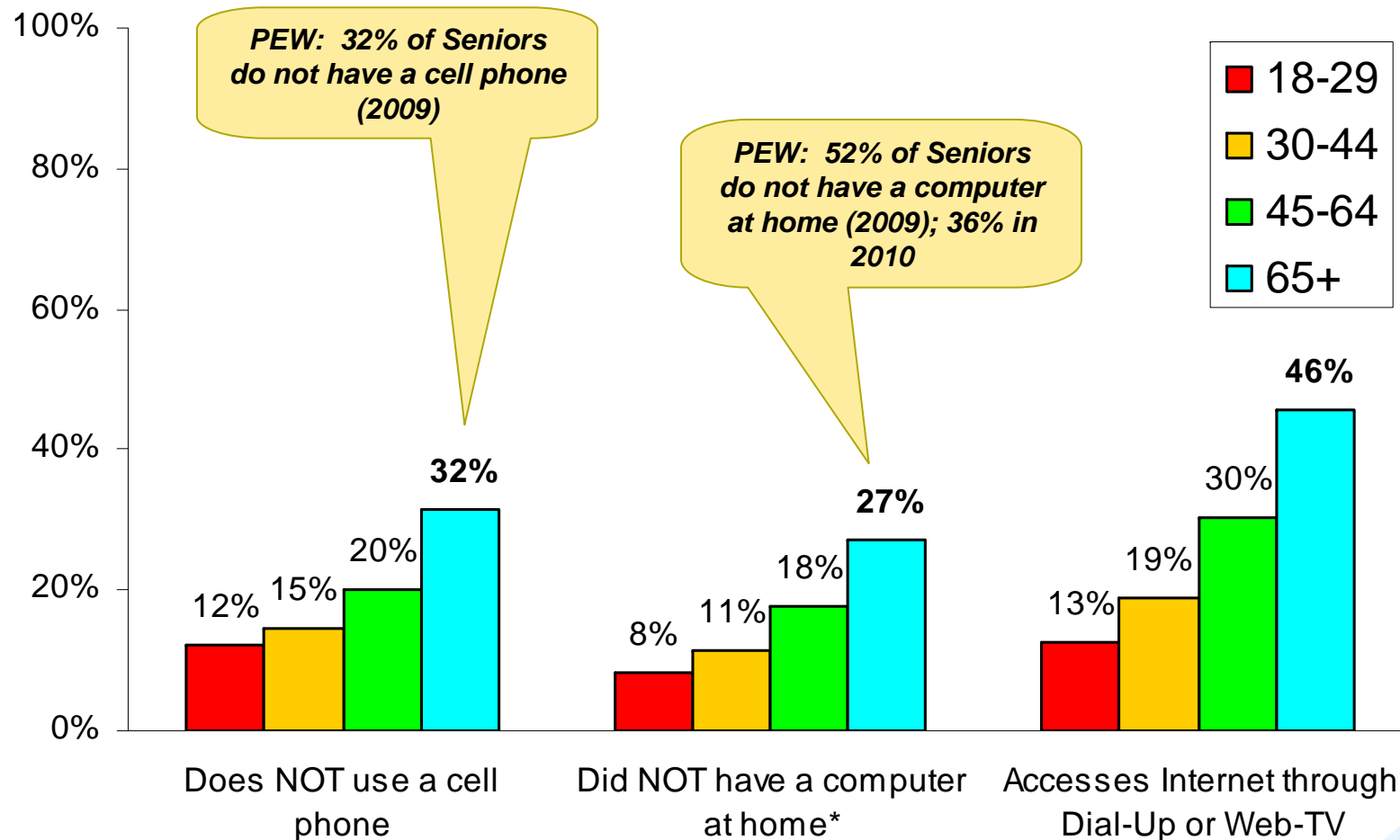
Are seniors' attitudes less "pro-technology" than those of younger age groups?

- Answer: Yes, clearly



Are seniors **less likely to use technology** than do younger age groups?

- Yes. Both in ownership of technology...

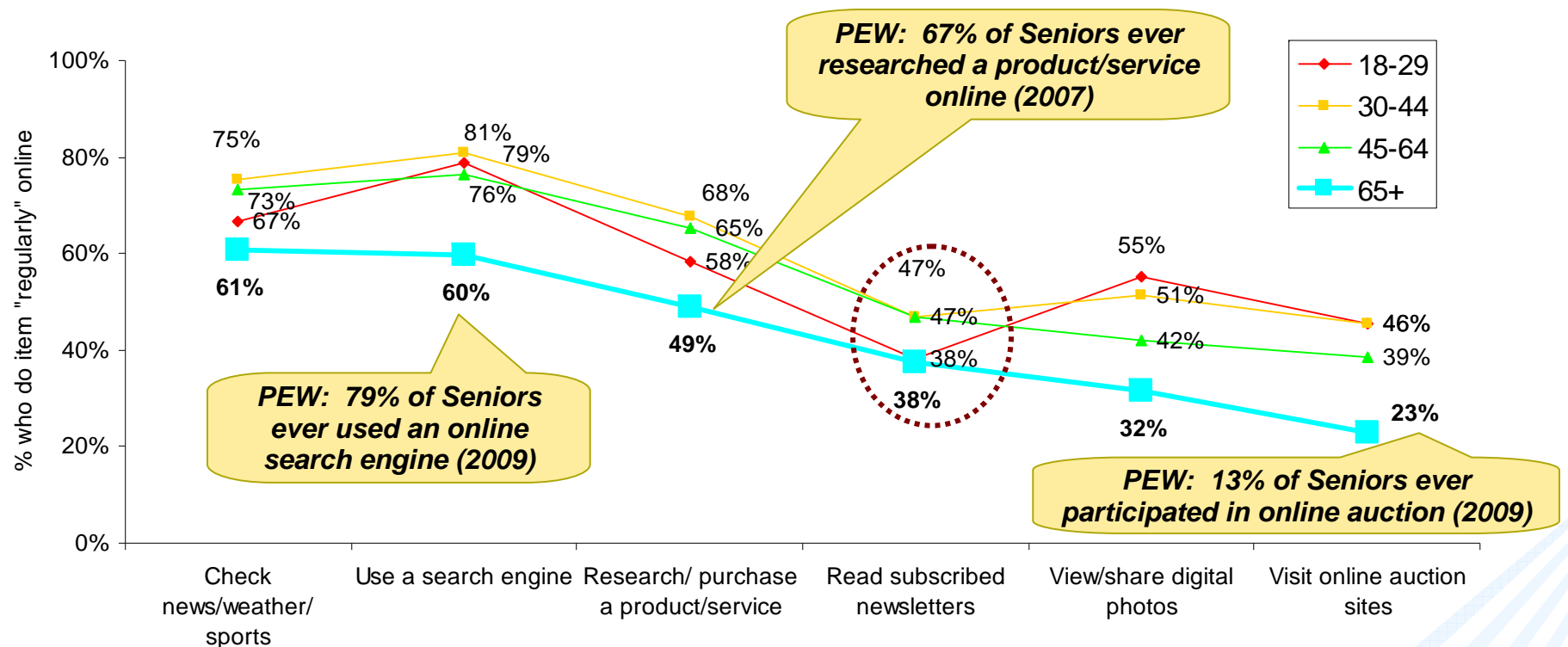


All differences between seniors and other age groups are significant at .05.

Are seniors **less likely to use technology** than do younger age groups?

- ...and in what/how much they do on the Internet.

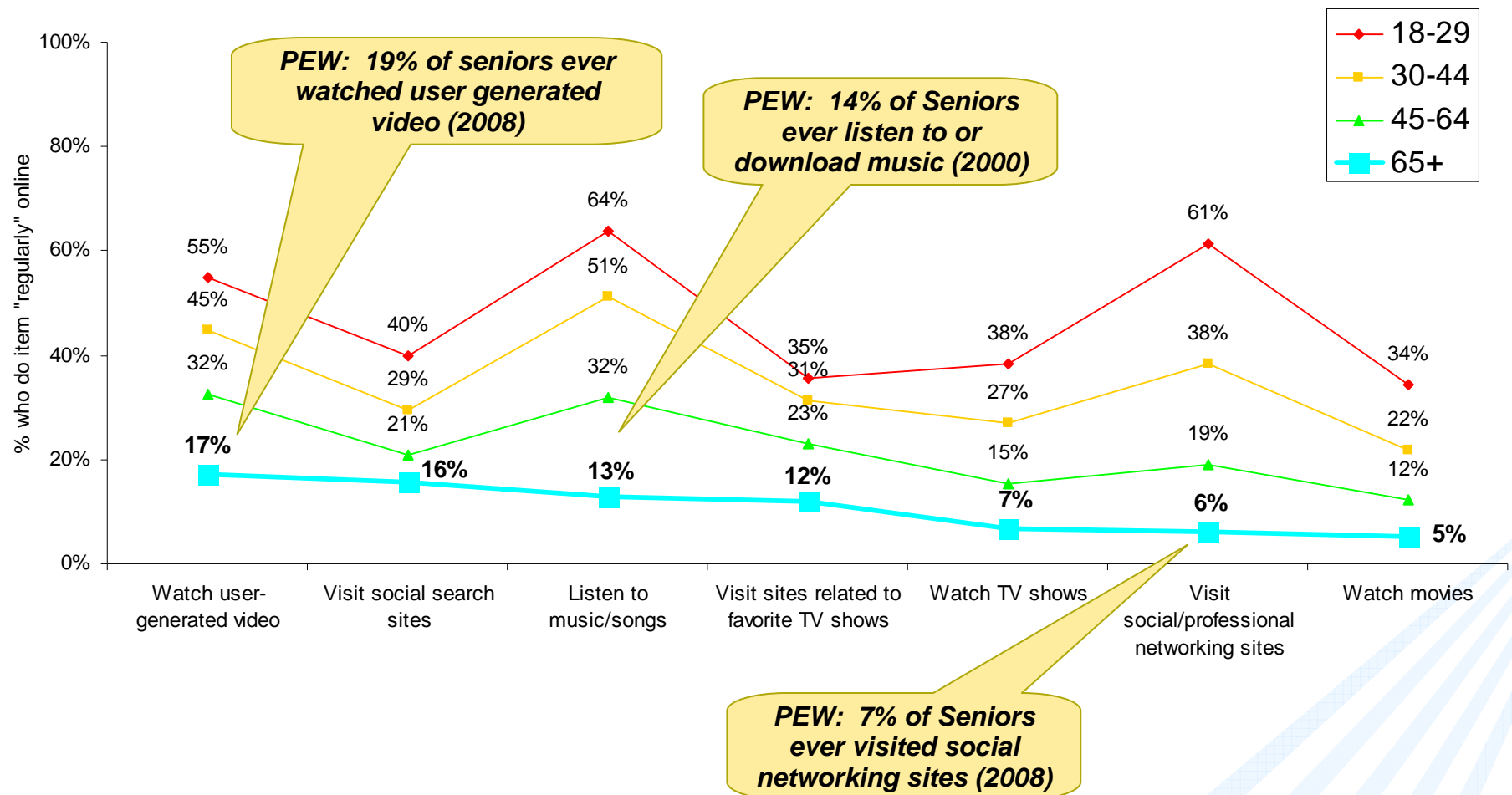
Most Common Items Regularly Done on the Internet



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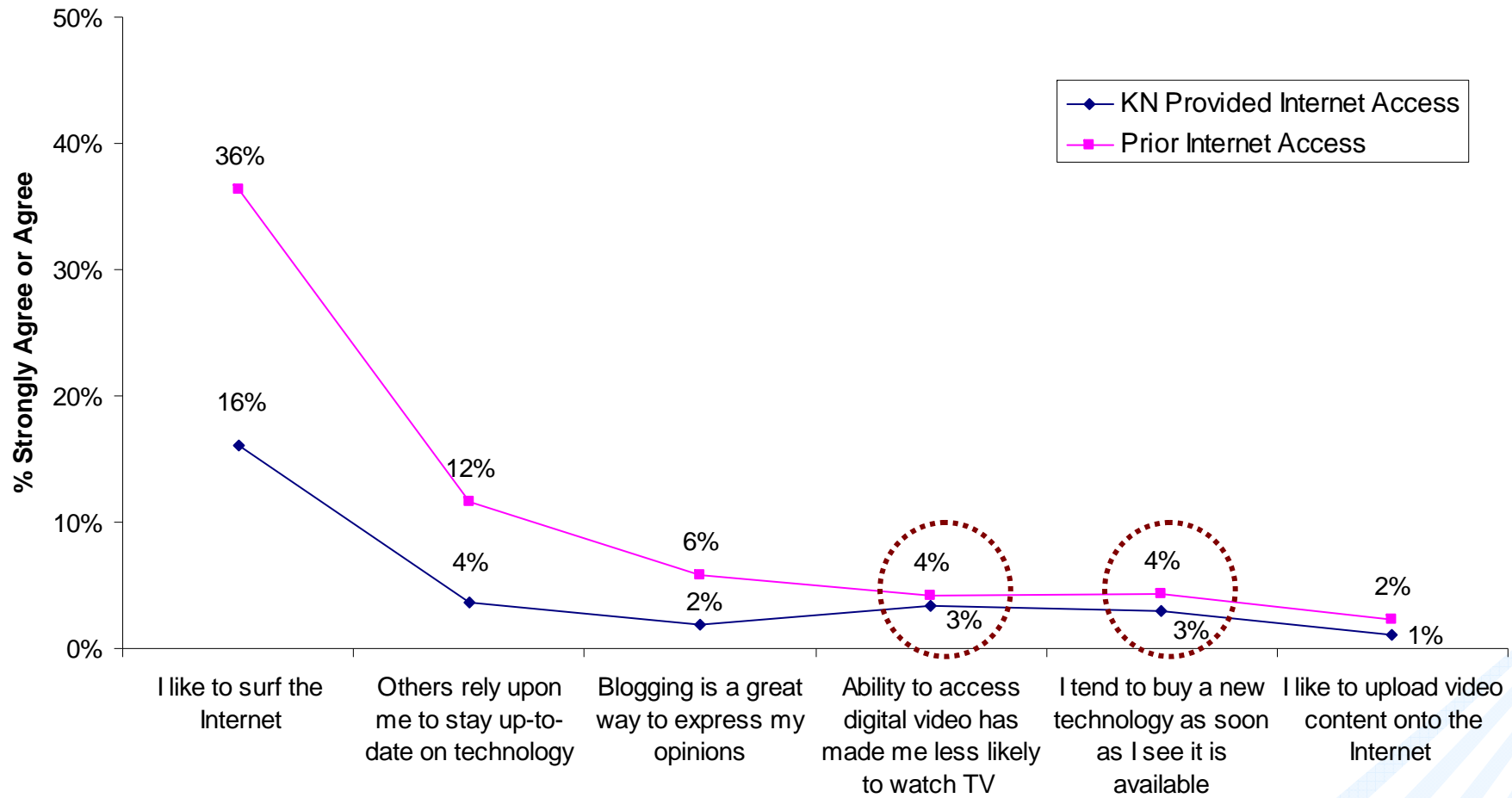
Results

Technology Attitudes and Behaviors
Among Seniors
Who Are Online and “Off-Line”

Using KN Panel to Understand “Off-Line” Seniors

Do seniors for whom KN provides an online connection & device have **less pro-technology** attitudes than those who were already online?

- Answer: Yes, on some attitude measures.

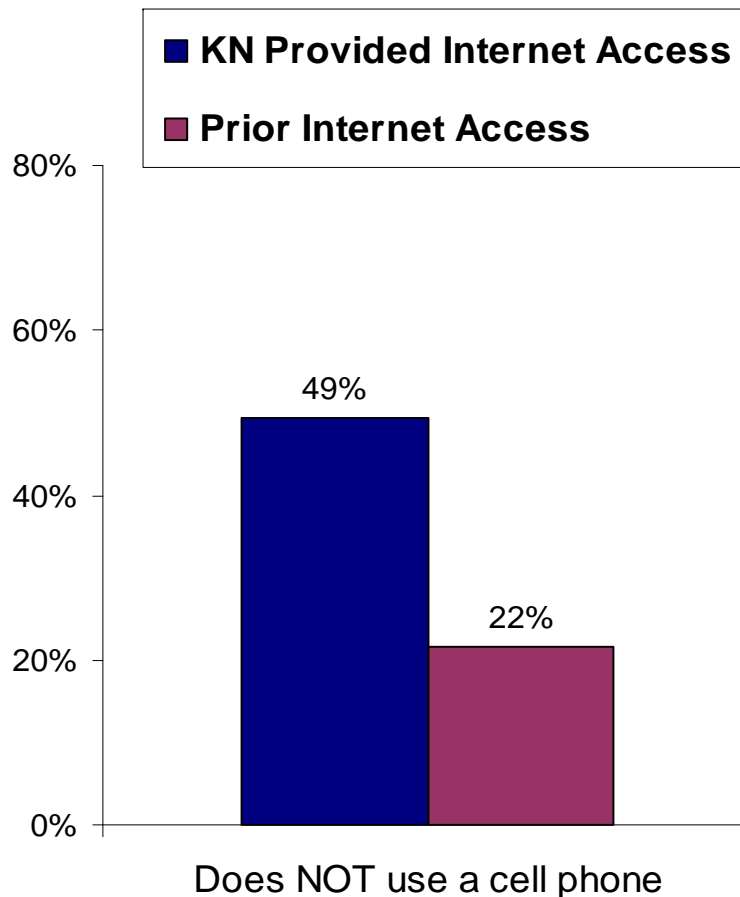


Circled differences are not significant. All other differences are significant.

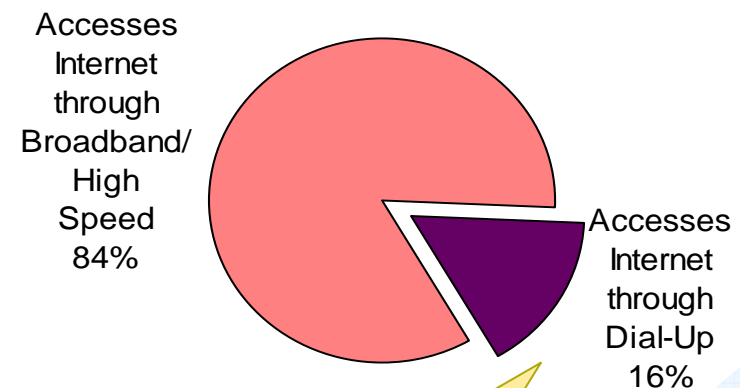
Do seniors for whom KN provides an online connection & device have **less pro-technology** behaviors than those who were already online?

- Answer: Yes, on cell phone ownership.
 - No other variables available for this measure.

– Aside: Among seniors who had prior access to the Internet, 16% are using dial-up (100% of those KN provides access were using dial-up or WebTV).



Among those with Prior Internet Access



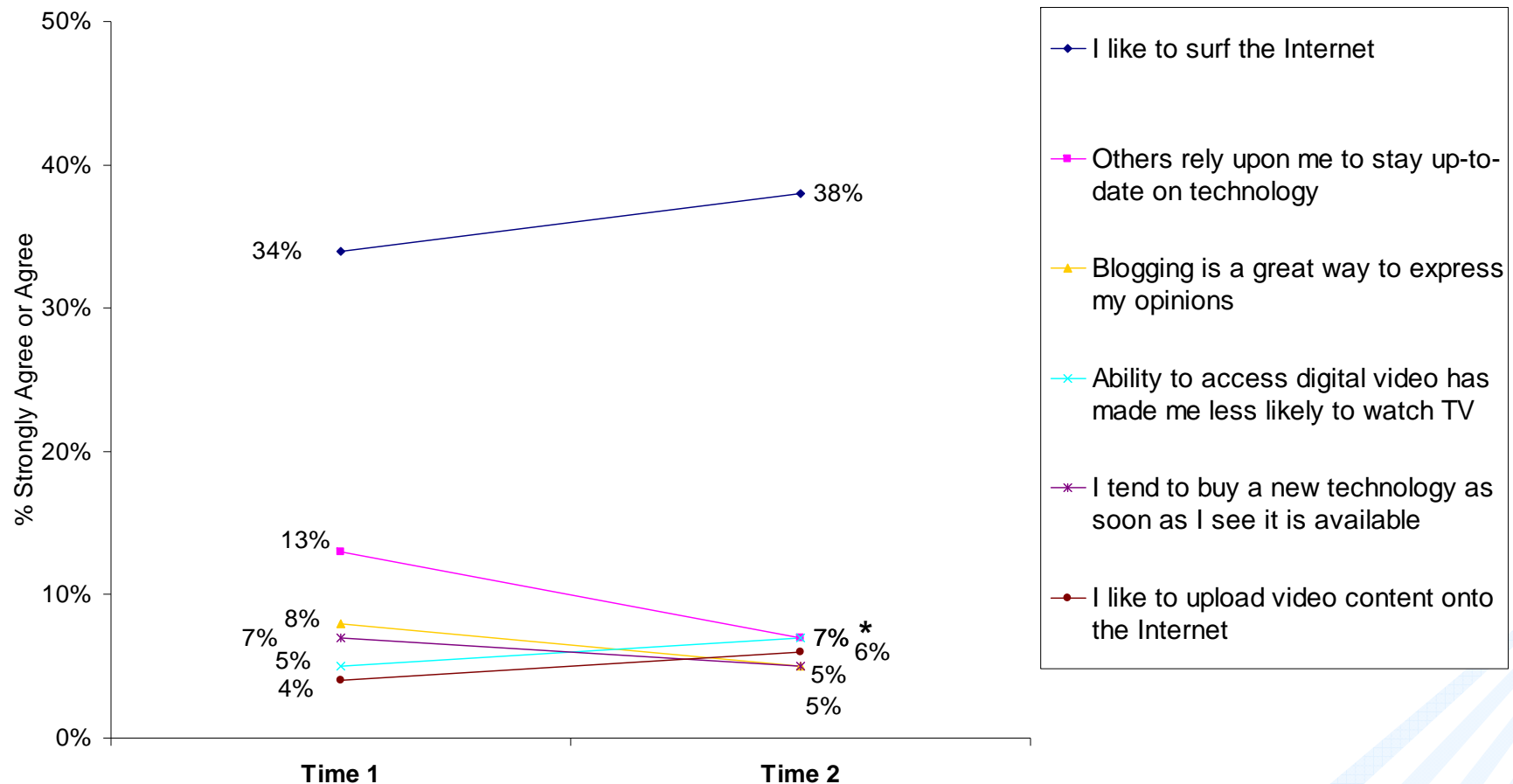
PEW: Among seniors with online access, 19% use dial-up (2009)

Results

Changing Technology Attitudes &
Behaviors:
Among Seniors, Does Being on the KN
Panel Have an Impact?

Over time, do the attitudes of seniors on the panel become more pro-technology?

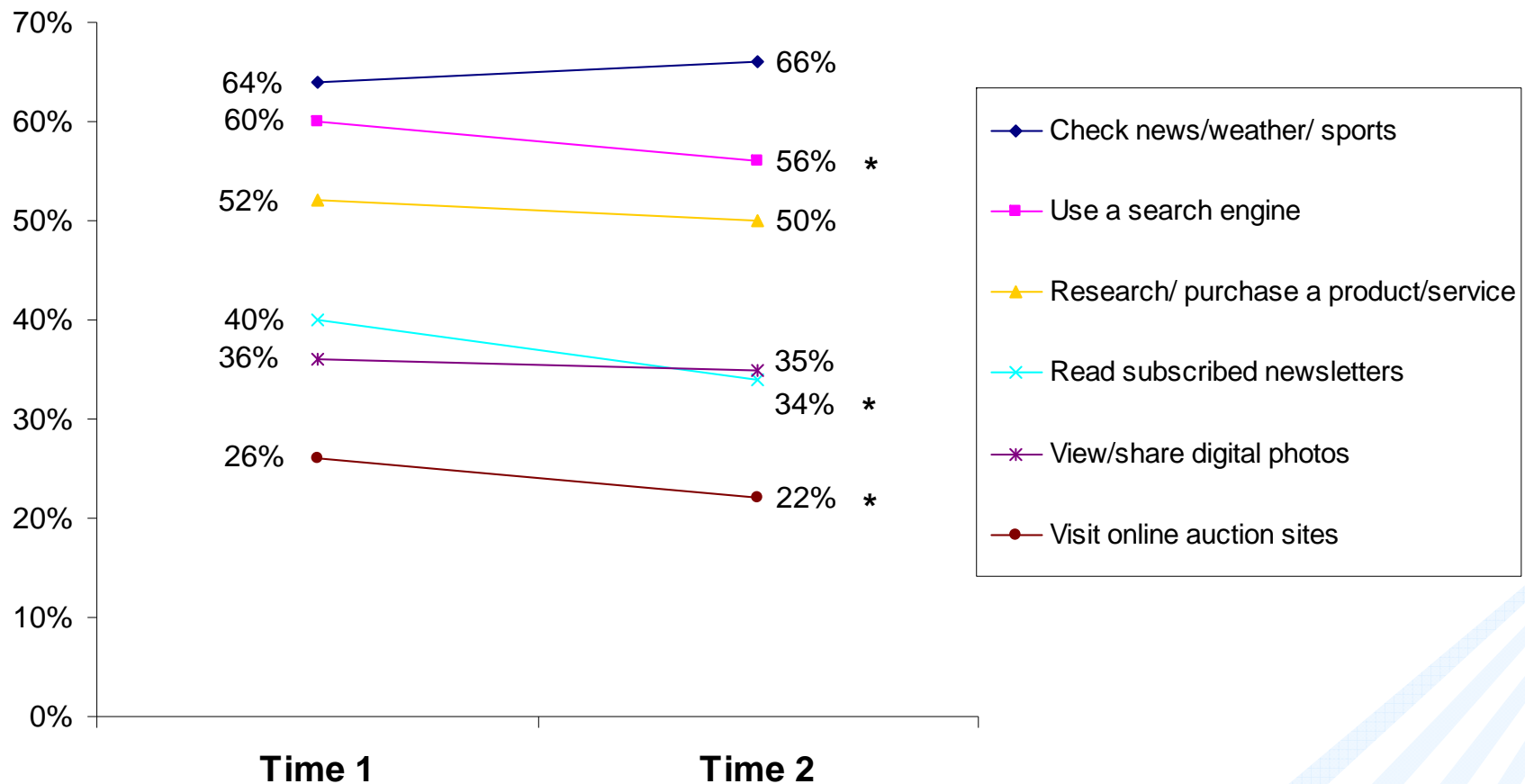
- Among seniors, most technology attitudes did not change significantly with panel involvement. One item went *down* slightly, but significantly.



Over time, do the behaviors of seniors on the panel become more pro-technology?

- Slight yet significant *decreases* in using search engines, reading newsletters and visiting auction sites.

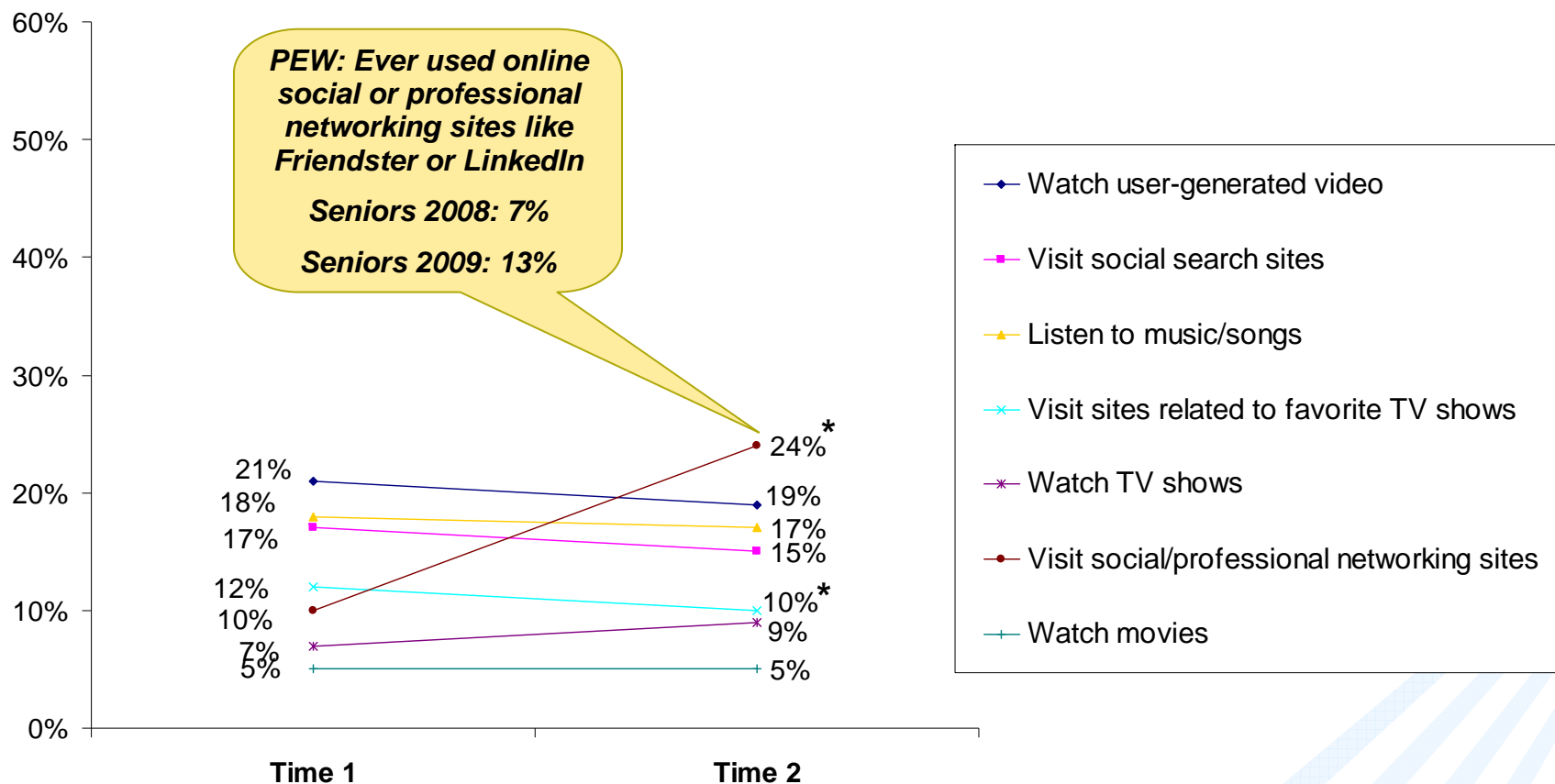
Most Common Items Regularly Done on the Internet



Over time, do the behaviors of seniors on the panel become more pro-technology?

- Use of social network sites is the only item that *increased* significantly, likely due to cultural changes rather than impact of panel tenure. Other activities are flat or slightly down.

Less Common Items Regularly Done on the Internet



Conclusion

- As expected, seniors demonstrate less “pro-technology” attitudes and behaviors than do younger age groups and were significantly different on 21 of 22 measures examined.
- Seniors for whom KN has provided Internet access differed significantly from seniors who already had access on 5 of 7 measures.
 - This is evidence that the 3 in 5 seniors who are not currently online are different than online seniors, at least on these measures of technology attitudes/behaviors.
- Seniors participating in KN’s panel showed little change across panel tenure, showing significant change on 5 of 19 variables.
 - Four of the significant changes were *decreased* activity and only 1 was an increase in activity, that of visiting social networking sites.
 - This suggests that online panel participation does little to increase these technology attitude/behavior measures.

Considerations and Limitations

- Measures available might not fully reflect technology attitudes and behaviors, as they were chosen based on availability rather than tested in advance.
- We were unable to find any benchmarks from RDD or other methodologies that perfectly paralleled our survey questions. Telephone interview data from Pew suggest to us that our data are very close to national estimates.
- Seniors provided access by KN are provided a dial-up connection. This likely would influence the online experience and one's attitudes.
 - We compared senior panelists with access provided by KN to those using their own connection that happened to be dial-up and found few significant differences (2 of 8 items were significant).
 - We did not have measures on activities done on the Internet for those that KN provides online access. Therefore, Time 1 to Time 2 findings are based only on those who were already online prior to participation.

Thank You for Attending

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Appendix

Variables Used in Analysis	Response items used in analysis	
Technology Attitudes		
<u>Below is a list of statements, which may or may not be used to describe your attitudes toward technology, entertainment, and your lifestyle. Please indicate whether you agree or disagree with the following statements.</u>		
<p>I like to surf the Internet as a form of entertainment</p> <p>Others often rely upon me to stay up-to-date about the latest technology</p> <p>The ability to access digital video from the Internet has made me less likely to watch television using a traditional TV</p> <p>Blogging is a great way for me to express my opinions</p> <p>I like to upload video content that I create onto the Internet (such as YouTube)</p> <p>I tend to buy a new technology, media device, or service as soon as I see it is available</p>	<p>% Top 2 box (Strongly agree or somewhat agree)</p>	
Technology Behaviors		
Do you personally use a mobile or cell phone service?	% yes	
How many desktop or laptop computers do you or other members of your household currently own?	% zero	
What kind of Internet service do you or anyone in your household currently use for connecting to the Internet at home?	% Dial-up/Web-TV	
<p><u>Which of the following do you regularly do on your PC?</u></p> <p>Listen to music/songs</p> <p>View or share digital photos online</p> <p>Watch movies or segments of movies</p> <p>Watch TV shows or segments of TV shows</p> <p>Watch user-generated video clips/short videos, such as those on YouTube</p> <p>Research/purchase a product or service online</p> <p>Visit online auction sites, such as eBay</p> <p>Visit social or professional networking sites, such as , MySpace, Facebook, , or LinkedIn</p> <p>Blog</p> <p>Use Twitter</p> <p>Check news, weather, or sports</p> <p>Read newsletters or other information that you signed up for</p> <p>Use a search engine</p> <p>Visit sites related to your favorite TV shows</p> <p>Visit social search sites, such as Yahoo! Answers</p>		<p>% regularly</p>