Summer Training Institute on Applied Research in Child and Adolescent Development: Interventions
ISSUES AND CHALLENGES OF DESIGNING INTERVENTION RESEARCH: METHODS
1:30 – 3:30 PM, June 21, 2011

Issues and Challenges in Participant Recruitment:

Using innovative technologies in sampling, measurement, and design

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Growing Up With Media

CiPHR Center for Innovative Public Health Research
Decoding how technology influences and can improve public health
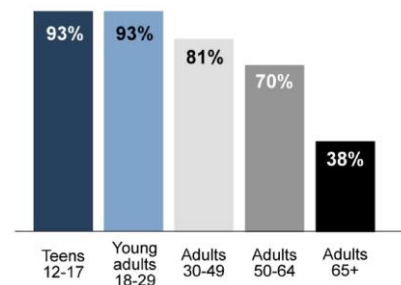

Roadmap

- First, some brainstorming
- Second, intervention development within the context of technology (and some case examples)
- Third, survey design within the context of technology (and some case examples)
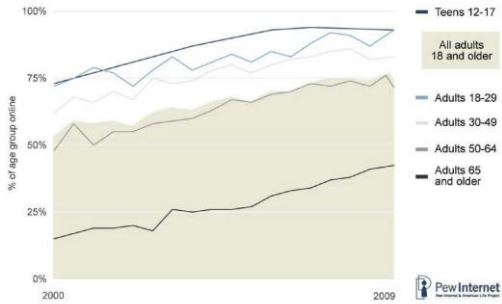- Finally, wrap up and questions

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Internet

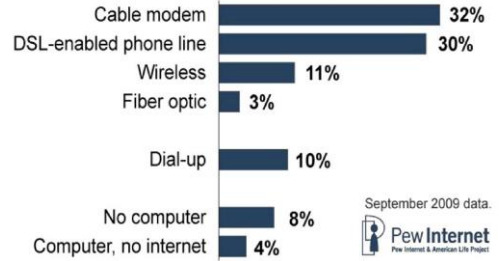Who's online? The internet by age groups

93% Teens 12-17
93% Young adults 18-29
81% Adults 30-49
70% Adults 50-64
38% Adults 65+

Pew Internet
Pew Internet & American Life Project

Teens (12-17) data from September 2009.
Adults (18+) data from December 2009.

Change in internet use by age, 2000-2009

Families with teens by type of internet access

Cable modem	32%
DSL-enabled phone line	30%
Wireless	11%
Fiber optic	3%
Dial-up	10%
No computer	8%
Computer, no internet	4%

September 2009 data.

Pew Internet
Pew Internet & American Life Project

Demographics of teen internet users

Below is the percentage of teens in each group who use the internet, according to our September 2009 survey. As an example, 94% of teen girls use the internet.

	% who use the internet
Total teens	93
Boys	91
Girls	94
Race/ethnicity	
White, Non-Hispanic	94
Black, Non-Hispanic	87
Hispanic (English -speaking)	95
Age	
12-13	88
14-17	95
Household income	
Less than $30,000/yr	88
$30,000-$49,999	89
$50,000-$74,999	96
$75,000+	97

Source: The Pew Research Center's Internet & American Life project 2009 Parent-Teen Cell Phone Survey, conducted from June 26 to September 24, 2009. n= 800 teens ages 12-17 (including 245 cell phone interviews).

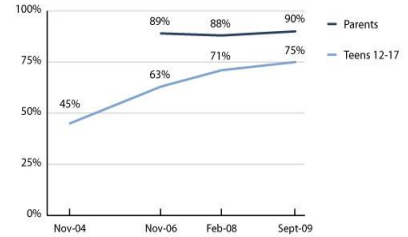pewinternet.org

Adolescents' online activities
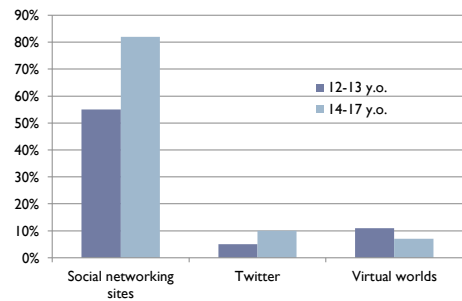
Data from Pew Internet and American Life Project

Cell phones and text messaging

The gap between parent and teen cell phone ownership is steadily narrowing

Parent and teen cell phone ownership over time

Source: Pew Research Center's Internet & American Life Project surveys.

Pew Internet

Demographics of teen cell phone users

the % of teens in each demographic group who have a cell phone

	% of teens		% of teens
Total teens	**75%**	**Race/ethnicity**	
		White, non-Hispanic	78%
		Black, non-Hispanic	75
Sex		Hispanic (English-speaking)	68
Boys	74%		
Girls	77	**Household income**	
		Less than $30,000/yr	59%
Age		$30,000-$49,999	76
12-13	66%	$50,000-$74,999	73
14-17	80	$75,000+	87

Pew Internet

Older teens more likely to own cell phones

The percentage of teens who have a cell phone, by age (2004-2009)

Age of teen

Pew Internet
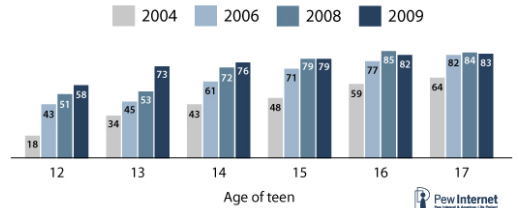
Demographics of teens who text

The percentage of teens in each group who text

	% of teens
Total teens	**72%**
Boys	68%
Girls	77
Age	
12-13	61%*
14-17	77
Race/ethnicity	
White, Non-Hispanic	73%
Black, Non-Hispanic	78
Hispanic (English-speaking)	75
Household income	
Less than $30,000/yr	62%*
$30,000-$49,999	76
$50,000-$74,999	72
$75,000+	81

* indicates a statistically significant difference.

Source: Pew Research Centers Internet & American Life Project, Teens and Mobile Phones Survey, conducted from June 26 -September 24th, 2009. n=800 teens ages 12-17 and the margin of error for the total sample is +/- 4%.

Pew **Internet**
Pew Internet & American Life Project

The vast majority of teen cell phone users have unlimited texting
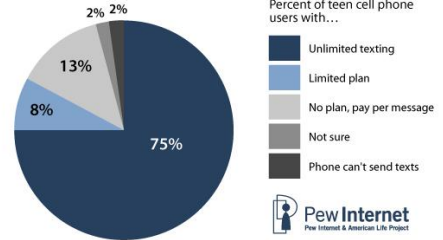
Percent of teen cell phone users with…

- Unlimited texting
- Limited plan
- No plan, pay per message
- Not sure
- Phone can't send texts

2% 2%
13%
8%
75%

Pew **Internet**
Pew Internet & American Life Project

Source: Pew Research Center's Internet & American Life Project, Teens and Mobile Phones Survey, conducted from June 26 – September 24th, 2009. n=625 teen cell phone owners ages 12-17 and the margin of error is +/- 5%.

Typical number of texts per day
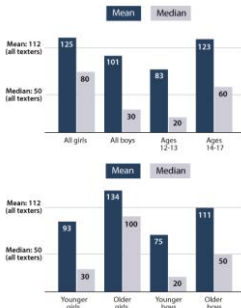
The mean and median number of texts sent per day by teen texters, by age and sex

| Mean | Median |

Mean: 112 (all texters)
Median: 50 (all texters)

	All girls	All boys	Ages 12-13	Ages 14-17
Mean	125	101	83	123
Median	80	30	20	60

| Mean | Median |

Mean: 112 (all texters)
Median: 50 (all texters)

	Younger girls	Older girls	Younger boys	Older boys
Mean	93	134	75	111
Median	30	100	20	50

Source: Pew Research Center's Internet & American Life Project, Teens and Mobile Phones Survey, conducted from June 26 – September 24th, 2009. n=800 teens ages 12-17 and the margin of error for the total sample is +/- 4%. For smaller subgroups, the margin of error may be larger. Please see the Methodology section for details.

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Teen cell phone owners in the lowest household income category are most likely to use their handset to go online

Annual household income	Go online with cell	Computer in the home
Under $30,000	41%*	70%*
$30,000-$49,999	27%	84%
$50,000-$74,999	22%	93%
$75,000+	23%	97%

* significantly different than all other cells in the respective rows

Pew **Internet**
Pew Internet & American Life Project

Now a twist…

(now that I've convinced you that your next intervention should be text-based..)

Cell phone ownership among teens is also somewhat fluid:
About 25% of 12-to-17 year-olds do not have a cell phone
BUT 34% of these youth have had a cell phone in the past

Change in cell phone ownership is most common in the lowest income households:

42% of teens without cell phones in low income households (those with yearly incomes below $30,000) say they have had one in the past. *[so, 42% vs. 34% - not super huge, but notable]*

And a turn…

From Pew data, we learn that:

Sharing phones is a fairly common practice among teens:

Almost one in four (23%) teens who do not own their own cell phone share one with someone else.

Much of this phone sharing is with others in the household, including siblings and parents.

Prevention and intervention program design

Step 1: Define your target audience. WHO are you trying to reach?
Step 2: Identify the best way to reach them. Where *are* they? (online, text, school, malls?)
Step 3: Understand their motivation for taking part in your study? (just because you build it, will they come?)
Step 4: What does the likely 'end user' look like? How can you reach them in your study?

Case study

You are designing a program that will foster desirable eating, physical activity, self-care, and other health-related behaviors among young people 12-17 years of age

1. Where and how do you recruit your participants?
2. What delivery mechanism do you propose

Case study

You are designing a behavioral intervention to improve the social skills of children with autism. Your target age group is grade school.

…And, then a twist:

You are designing a behavioral intervention for PARENTS of children with autism to improve their coping skills and resiliency

1. Where and how do you recruit your participants?
2. What delivery mechanism do you propose

(and if it differs for the two populations, explain why)

Survey design

Step 1: Define your target audience. WHO is in your sampling frame?

Step 2: Identify the best way to reach them. Is there more than one way? (and if so, can you combine them?)

Consider the relative strengths and weaknesses of:
◦ RDD surveys
◦ Online panel surveys
◦ School based surveys
◦ Online open surveys

Who are you reaching? Who are you not?

Case study

You are conducting as study about unintended pregnancy. Your 2 aims are to:
- Learn how the meaning and consequences of unintended pregnancy vary between cultural subgroups.
- Examine how cultural and structural factors shape relationships, marriage (rates, age at) or other processes affecting pregnancy motivation.

1. Where and how do you recruit your participants?
2. What communication mode(s) do you use to interview your participants?

Case study

You are conducting as study to measure the prevalence and incidence rates of youth violence in a nationally representative sample of children and adolescents.

You additionally aim to understand how vulnerable populations – particularly LGBT and non-English speaking youth – are affected.

1. Where and how do you recruit your participants?
2. What communication mode(s) do you use to interview your participants?

Real world problem solving

What do you do if….

You proposed to recruit participants via Facebook ads and *no one* is responding?

Real world problem solving

What do you do if….

You designed your intervention to have a specific duration and intensity, but then you pilot test it and this is not feasible in the field?

Real world problem solving

Other ideas? Experiences?

Final Musings

Technology is part of our everyday world. It is infused in our culture, self-identity, relationship formation, etc. This is especially true for young people.

As **adolescent** health researchers, our question is not
whether to use technology in our study,
But rather
how to use technology in our study:

- As a delivery mechanism?
- As a data collection tool?
- As part of your measurement protocol?