

American Psychological Association
Washington DC
August 6, 2011 4:00 PM

Digital Adolescence:
Myths and truths about Growing up with Technology

Michele Ybarra MPH PhD
Center for Innovative Public Health Research



* Thank you for your interest in this presentation. Please note that analyses included herein are preliminary. More recent, finalized analyses may be available by contacting CIPHR for further information.



Technology is ubiquitous



Image from: <http://www.computernewsme.com/2011/04/social-media-essential-to-it-service-management-ovum/>

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

Online activity

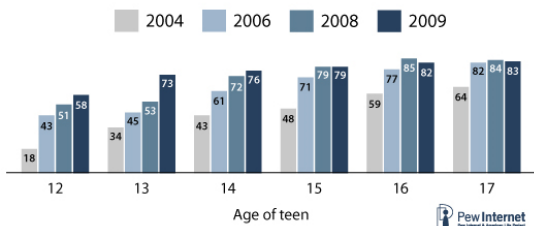
% of teen internet users in the U.S. who do the following activities online, as of September 2009

Use an online social networking site like MySpace or Facebook	73
Go online to get news or information about current events or politics	62
Buy things online, such as books, clothing, or music	48
Share something online that you created yourself, such as your own artwork, photos, stories or videos	38
Look online for health, dieting, or physical fitness information	31
Take material you find online like songs, text or images and remix it into your own artistic creation	21
Look for information online about a health topic that's hard to talk about, like drug use, sexual health, or depression	17
Create or work on your own online journal or blog	14
Use Twitter	8
Visit virtual worlds such as Gaia, Second Life or Habbo Hotel	8

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). See also: [Our comprehensive spreadsheet of teen tech use and ownership since 2000.](#)

Older teens more likely to own cell phones

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



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

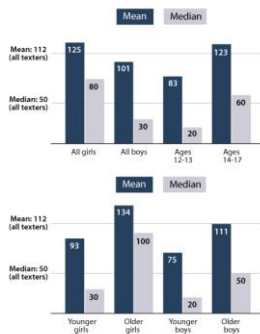
* indicates a statistically significant difference.

Source: Pew Research Centers Internet & American Life Project, Teens and Mobile Phones Survey, conducted from June 28 - September 24th, 2009. n=800 teens ages 12-17 and the margin of error for the total sample is +/- 4%.



Typical number of texts per day

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



Source: Pew Research Center's Internet & American Life Project, Teens and Mobile Phones Survey, conducted from June 28 - 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.



Technology is ubiquitous: Recap

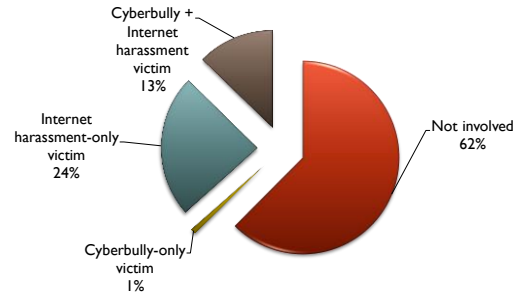
- Most children and adolescents are online (93%) – but not all are (7% are not)
- Many (73%) are on Face book and other social network sites
 - But very few (8%) are tweeting
- Constantly text messaging? YES
 - 72% of teens text; at an average of 112 texts *per day*

CyberBullying is everywhere



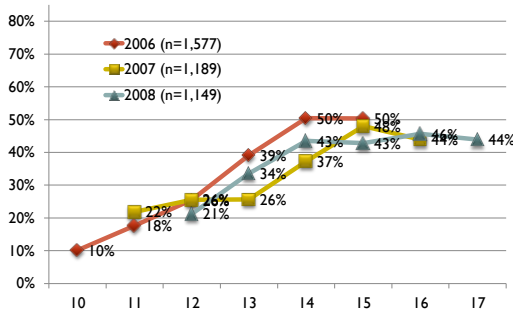
Image from: <http://www.definetheline.ca/>

Overlap of cyberbullying and Internet harassment victimization



Data are averaged from Growing up with Media, 2007 and 2008. n=2338 observations (1588 youth)

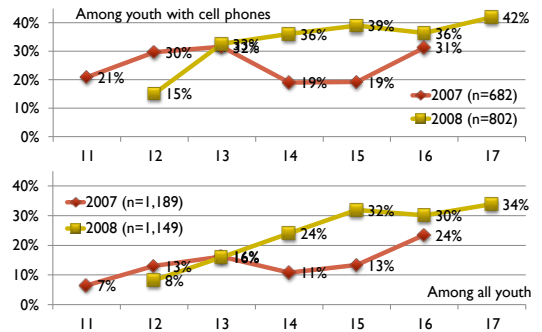
Internet harassment victimization rates over time



Data are from Growing up with Media

In press, Pediatrics, Ybarra, Mitchell, Korchmaros; National trends in exposure to and experiences of violence on the Internet among U.S. children

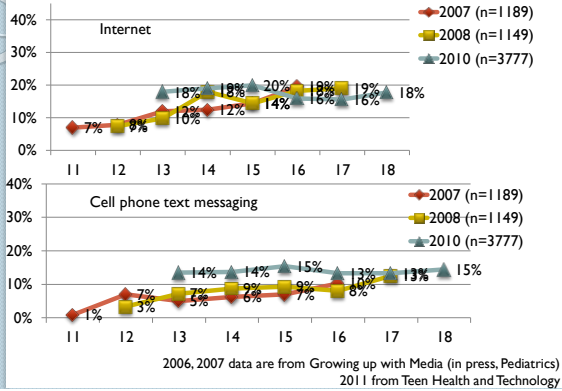
Text messaging harassment victimization rates over time



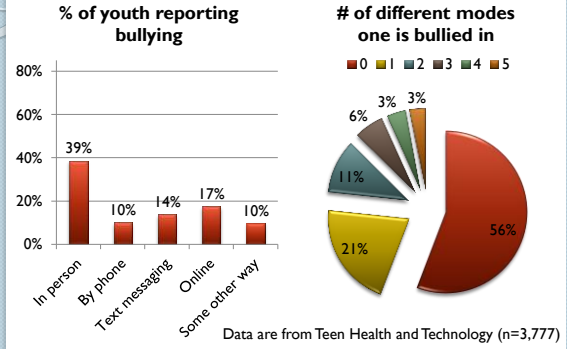
Data are from Growing up with Media

In press, Pediatrics, Ybarra, Mitchell, Korchmaros; National trends in exposure to and experiences of violence on the Internet among U.S. children

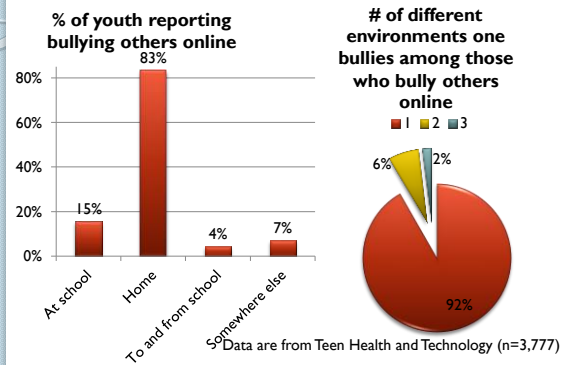
Bullying victimization rates over time



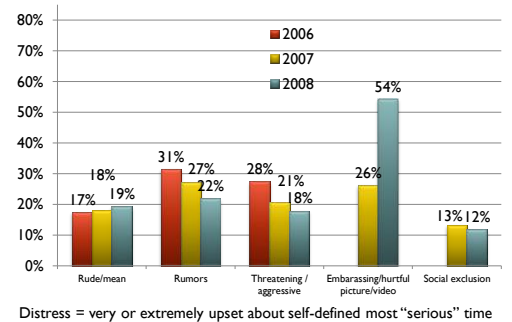
Cyberbullying is inescapable (?)



Cyberbullying is inescapable (?)

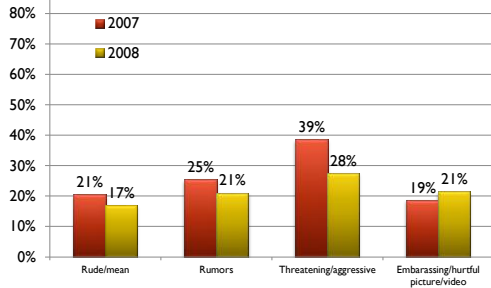


Distress among 12-15 year olds reporting harassment online



Data are from Growing up with Media, sample sizes vary based upon n reporting each experience
In press, Pediatrics, Ybarra, Mitchell, Korchmaros; National trends in exposure to and experiences of violence on the Internet among U.S. children

Distress among 12-15 year olds reporting harassment via text messaging

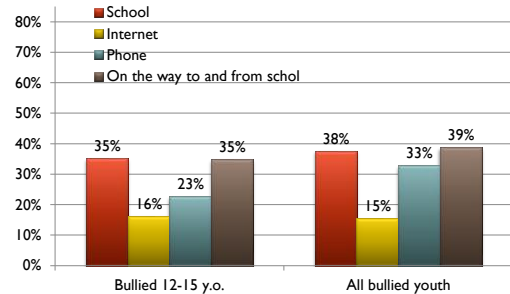


Distress = very or extremely upset about self-defined most "serious" time

Data are from Growing up with Media, sample sizes vary based upon n reporting each experience

In press, Pediatrics, Ybarra, Mitchell, Korchmaros: National trends in exposure to and experiences of violence on the Internet among U.S. children

A comparison of distress among youth bullied across environments and modes



Distress = very or extremely upset about self-defined most "serious" time

Data are from Growing up with Media 2007 and 2008, sample sizes vary based upon n reporting each experience

Psychosocial issues for victims

- **Interpersonal victimization / bullying offline** (Ybarra, Mitchell, Espelage, 2007; Ybarra, Mitchell, Wolak, Finkelhor, 2006; Ybarra, 2004)
- **Depressive symptomatology and suicidal ideation** (Ybarra, 2004; Mitchell, Finkelhor, Wolak, 2000; The Berkman Center for Internet & Society, 2008; Hinduja & Patchin, in press)
- **Alcohol use** (Ybarra, Mitchell, Espelage, 2007)
- **Social problems** (Ybarra, Mitchell, Wolak, Finkelhor, 2006)
- **School behavior problems** (Ybarra, Diener-West, Leaf, 2007)
- **Poor caregiver-child relationships** (Ybarra, Diener-West, Leaf, 2007)

Psychosocial issues for perpetrators

- **Interpersonal victimization and perpetration (bullying) offline** (Ybarra, Mitchell, Espelage, 2007; Ybarra & Mitchell, 2007; Ybarra & Mitchell, 2004)
- **Aggression / rule breaking** (Ybarra, Mitchell, Espelage, 2007; Ybarra & Mitchell, 2007)
- **Binge drinking** (Ybarra, Mitchell, Espelage, 2007)
- **Substance use** (Ybarra, Mitchell, Espelage, 2007; Ybarra & Mitchell, 2007)
- **Poor caregiver child relationship** (Ybarra, Mitchell, Espelage, 2007; Ybarra & Mitchell, 2004; Ybarra & Mitchell, 2007)
- **Low school commitment** (Ybarra & Mitchell, 2004)

CyberBullying: Recap

- Cyberbullying (bullying online) affects between 15-17% of youth each year; harassment affects about 38%

 - More than **4 in 5** youth who use the Internet are ***not*** cyberbullied
- About 1/3 of bullied and harassed youth are very or extremely upset

 - 2/3 bullied and harassed youth are less affected
- Bullying is most commonly an in-person experience.

 - For a concerning minority (12%), bullying is ubiquitous (in person, online, via text)
- Internet victimization is **not** increasing

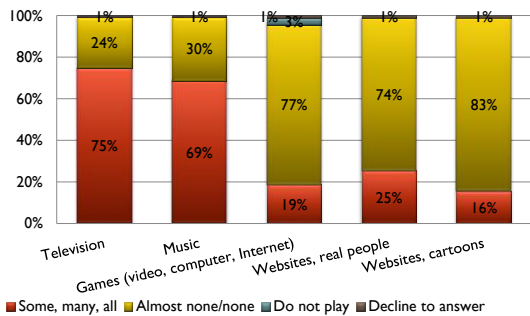
 - Text messaging victimization may be increasing...

Technology is a hotbed of sex



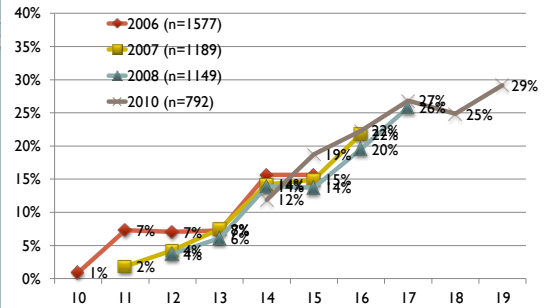
Image from: Chan Lowe <http://blogs.trb.com/news/opinion/chanlowe/blog/2009/02/sexting.html>

Exposure to sexual material by medium



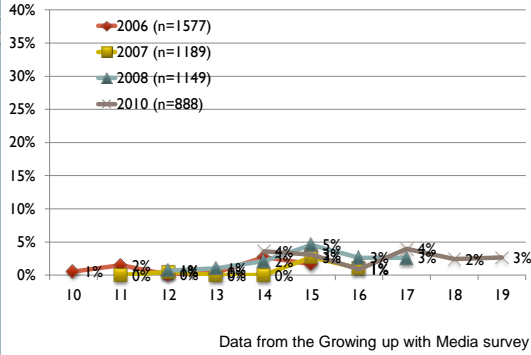
Data from the Growing up with Media survey, 2008 & 2010 (18 y.o. and younger) n=1913 observations, 1588 youth

Wanted exposure to x-rated material online by age

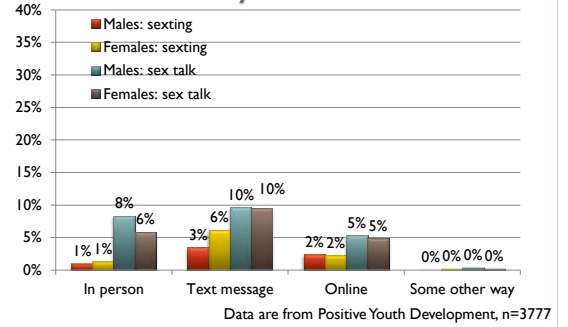


Data from the Growing up with Media survey

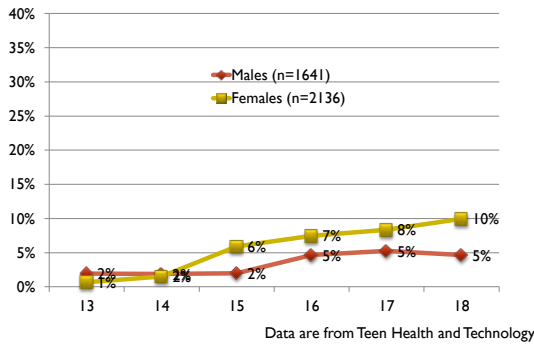
Wanted exposure to violent x-rated material online by age



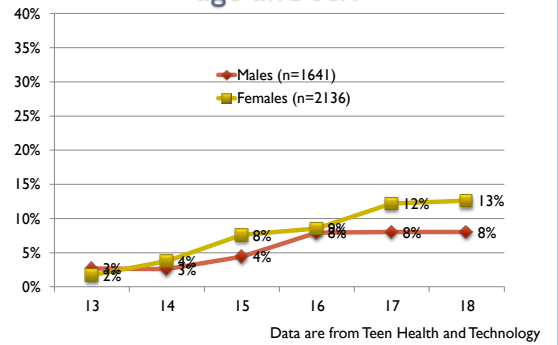
Putting it into context: "Sexting" versus sex talk by mode and youth sex



"Sexting" by age and sex



"Sexting" (across all modes) by age and sex



'Sexting' related to other sexual behaviors

Sexual behaviors	No sexting (n=3,588)	Sexting (n=189)	aOR (95% CI)
Current romantic partner	22%	50%	2.8 (2.0, 3.9)
Kissed	47%	89%	8.2 (5.1, 13.1)
Fondled	29%	83%	10.2 (6.8, 15.4)
Oral sex	17%	70%	10.4 (7.3, 14.9)
Sex with a toy or finger	17%	70%	10.1 (7.1, 14.3)
Vaginal sex	17%	65%	7.8 (5.5, 11.1)
Anal sex	4%	23%	5.6 (3.7, 8.3)

aOR = adjusted for biological sex, age, race, Hispanic ethnicity, and survey experience indicators (i.e., privacy when completing the survey and self-reported honesty). Data from Teen Health and Technology

Technology is filled with sex: Recap

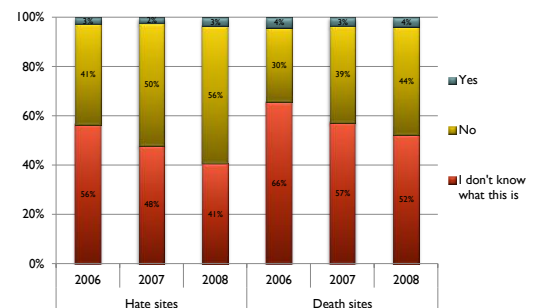
- Compared to TV (75%) and music, (69%) the Internet is among the least common exposures of sexual material (16-25%)
- Less than 1 in 20 youth (5%) have 'sexted' via text messaging in the past year
 - Youth are sharing sexy photos online (2%) and in person (1%) too
 - It is related to increased age, and other sexual behaviors → maybe in most cases, it's another way to express one's sexual self?

A few more things to know about new technology



Image from: <http://thatsnotcool.com>

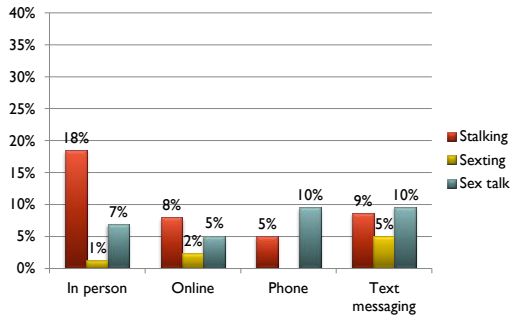
Knowledge is not enough



Data from the Growing up with Media survey, n=1,588

In press, Pediatrics, Ybarra, Mitchell, Korchmaros; National trends in exposure to and experiences of violence on the Internet among U.S. children

Focusing on adolescent health (not media) issues: Stalking vs. "sexting"



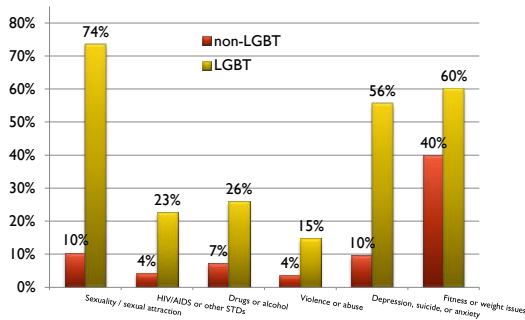
Stalking data from Growing up with Media, 2010 (n=888); Sexting/sex talk data from Teen Health and Technology (n=3777)

Benefits of technology: Teaching healthy behaviors

- Physical health: Dance Dance Revolution
- Healthy behaviors: Sesame Street's Color me Hungry (encourages eating vegetables)
- Disease Management: Re-Mission (teaches children with cancer about the disease)

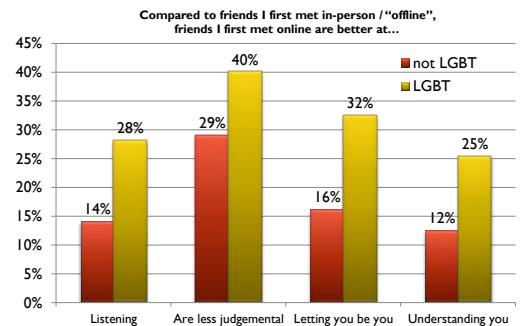
(as described by My Thai, Lownestein, Ching, Rejeski, 2009)

Benefits of technology: Access to health information



Data are from Teen Health and Technology, n=5542

Benefits of technology: Social support for LGBT youth



Data are from Teen Health and Technology, n=2131

Too much technology?
Or is everything kinda pretty much okay...?



Image from: <http://impostor.files.wordpress.com/2008/11/brainmachine.jpg>

Acknowledgements

Growing up with Media: This survey was supported by Cooperative Agreement number U49/CE000206 from the Centers for Disease Control and Prevention (CDC). The contents of this presentation are solely the responsibility of the authors and do not necessarily represent the official views of the CDC. I would like to thank the entire Growing up with Media Study team from Center for Innovative Public Health Research, Harris Interactive, Johns Hopkins Bloomberg School of Public Health, and the CDC, who contributed to the planning and implementation of the study. Finally, we thank the families for their time and willingness to participate in this study.

Positive Youth Development: The project described was supported by Award Number R01 HD057191 from the National Institute of Child Health and Human Development. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Child Health and Human Development or the National Institutes of Health. We would like to thank the entire Study team from Internet Solutions for Kids, the University of New Hampshire, the Gay Lesbian Straight Education Network (GLSEN), Labrobe University, and Harris Interactive, who contributed to the planning and implementation of the study. Finally, we thank the study participants for their time and willingness to participate in this study.