

## Online Harassment in Context: Trends From Three Youth Internet Safety Surveys (2000, 2005, 2010)

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**Objective:** The current study examines an increase in youth online harassment over the last decade in order to better explore the implications of the trend for prevention initiatives. **Method:** The Youth Internet Safety Surveys (YISSs) involved 3 cross-sectional, nationally representative telephone surveys of 4,561 youth Internet users, ages 10 to 17, in 2000 ( $n = 1,501$ ), 2005 ( $n = 1,500$ ), and 2010 ( $n = 1,560$ ). **Results:** The increase in youth online harassment from 6% in 2000 to 11% in 2010 was driven primarily by a rise in indirect harassment—someone posting or sending comments to others about them online. Girls made up an increasing proportion of victims: 69% of victims were girls in 2010 compared with 48% in 2000. Furthermore, in comparison with earlier in the decade, harassment incidents in 2010 were more likely to come from a school friend or acquaintance and occur on a social networking site. Victims reported disclosing harassment incidents to school staff at greater rates in 2010 than in 2005 or 2000. **Conclusions:** The increase in online harassment can likely be attributed to changes in how youth are using the Internet, especially a disproportional increase in online communication with friends by girls, providing more opportunity for offline peer conflicts to expand to this environment. School-based prevention programs aimed at improving peer relationships and reducing bullying are recommended to reduce online harassment.

**Keywords:** online harassment, bullying, Internet safety, trends

There has been considerable and growing concern voiced by schools, parents, and the public about youth peer harassment via the Internet. The Youth Internet Safety Survey (YISS; Finkelhor, Mitchell, & Wolak, 2000; Wolak,

Mitchell, & Finkelhor, 2006), which collected data about the prevalence and characteristics of online harassment at three time points—2000, 2005 and 2010—found that the proportion of youth Internet users, ages 10 to 17 years, who reported being harassed online almost doubled between 2000 and 2010, from 6% to 11% (Jones, Mitchell, & Finkelhor, 2012). This finding may reinforce public fears that the Internet is facilitating negative behavior by youth. However, examining the context in which the changes occurred, specifically across youth demographics and by Internet use patterns, is critical for considering the most effective prevention and intervention responses. The last decade saw significant and rapid changes in youth online activity. Internet use has now expanded to encompass almost all youth, and the nature of youth Internet use changed during this time, with an increase in the use of cell phones and smartphones, and the migration of adolescent social activity to social networking sites (Lenhart, Purcell, Smith, & Zickuhr, 2010). The purpose of this article is to explore details of the

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increase in online harassment, looking at changes in victim demographics and incident characteristics, in order to better understand the significance of the trend and inform education and prevention initiatives.

In the current study, online harassment is defined as threats or other offensive behavior targeted directly at youth through new technology channels (e.g., Internet, text messaging) or posted online about youth for others to see. Many online harassment incidents involve single events that are not particularly distressing for youth (Wolak, Mitchell, & Finkelhor, 2007) and do not meet the criteria for bullying often used by the peer victimization field, that is, repeated incidents perpetrated by more powerful youth who intend to hurt the victim physically or emotionally (Olweus, 2007). However, online harassment can occur as part of a more extensive pattern of bullying or may include features that are distressing to the target. For example, youth have described instances where they were threatened with physical harm via online communication—"Someone was threatening to kill me and my girlfriend"—or were embarrassed and humiliated—"They were mad at me and they made a hate page about me" (Finkelhor et al., 2000). Definitional ambiguity adds to some confusion about the prevalence and consequences of this type of peer harassment. Terms like "online harassment" and "cyberbullying" are often used interchangeably and measured in different ways. As a result, reported rates of online harassment and cyberbullying are highly varied (Associated Press & MTV, 2009; Jones et al., 2012; Mishna, Cook, Gadalla, Daciuk, & Solomon, 2010; S. Robers, Zhang, & Truman, 2012; Wang, Iannotti, & Nansel, 2009; Ybarra, Mitchell, & Korchmaros, 2011) and become particularly inflated when checklists of negative online experiences are used without a specified definition of bullying or harassment (Ybarra, Boyd, Korchmaros, & Oppenheim, 2012).

There seems to be concern among some researchers that youth online harassment is prevalent and expanding, and that this is happening partly because the nature of the online environment facilitates hostile interactions for youth (Fredstrom, Adams, & Gilman, 2011; Juvonen & Gross, 2008; Kowalski & Limber, 2007; Mishna, Saini, & Solomon, 2009; Li, 2006; Tokunaga, 2010). For example, some online

safety experts note that the anonymity and remoteness of online interactions reduce inhibitions that would otherwise restrain youth from engaging in harassment. However, another possibility is that an increase in online harassment might be expected simply because many peer interactions—both positive and negative—are moving online, including arguments, harassment, and relational bullying. Research suggests that online behavior is often an extension of, or is similar to, social behavior in the face-to-face world (Mitchell, Finkelhor, & Becker-Blease, 2007) and that there is significant overlap between online and offline victimization experiences (Sumter, Baumgartner, Valkenburg, & Peter, 2012; Wolak et al., 2007).

These issues are important to clarify because they have direct implications for peer victimization prevention and policy. Much work is being done toward modifying the roles and responsibility of schools, law enforcement, and even technology companies around online safety concerns, and it is critical that these efforts are based on research instead of untested assumptions. It is currently unclear whether, and to what extent, policies and prevention initiatives that cover traditional bullying are sufficient for technology-related harassment, or whether there are unique features to technology-based harassment that require specialized procedures and policies.

To help provide some insight into the online harassment experiences of youth over the last decade and explore the changing characteristics of these incidents during this period of time, we examine the trend in online harassment identified in the YISS studies in more detail than has previously been done. We examine changes across youth demographic groups, Internet use patterns, and incident characteristics. Based on these findings, we suggest some hypotheses for why an increase has occurred. The current study uses data from the three YISS surveys to specifically explore the following research questions and their implications for prevention:

1. How have specific types of online harassment victimization and perpetration behaviors changed across the surveys administered in 2000, 2005, and 2010?
2. How have demographics and Internet use patterns changed for all youth Internet users compared with harassment victims?

3. How have online harassment incident characteristics and outcomes changed between 2000 and 2010?

### Method

The YISS surveys (YISS-1, YISS-2, and YISS-3) are detailed and structured telephone questionnaires designed to quantify youth experiences with unwanted sexual solicitations, harassment, and unwanted exposure to pornography on the Internet (see Mitchell, Jones, & Wolak, 2011, for detailed information on the YISS methodology). Structured telephone surveys provide an opportunity to collect extensive data from a large, nationally representative sample in a way that maximizes privacy for respondents. Respondents in the YISS studies were youth, ages 10 through 17 years, who had used the Internet at least once a month for the past 6 months, and a caregiver. Abt Schulman, Ronca, and Bucuvalas, Inc. (SRBI), a national survey research firm, conducted the sampling, screening, and telephone interviews for each of the YISS studies. Data collection for YISS-1, YISS-2, and YISS-3 occurred between August 1999 and February 2000, March and June 2005, and August 2010 and January 2011, respectively.

A national sample of households drawn from random-digit dialing (RDD) procedures, but prescreened for another survey, was used in YISS-1, whereas YISS-2 and YISS-3 samples were largely recruited through a newly accessed RDD sample. The difference in the use of prescreened households meant that an increasing percentage of households reached were not eligible for the study across the YISS studies (28%, 72%, and 88% for YISS-1, YISS-2, and YISS-3, respectively). Response rates across the three YISS studies also reflected increasing rates of cell-phone-only households and greater reliance on voice mail and caller ID. Once eligible households were reached, the refusal rate was 46% for both YISS-2 and YISS-3. The refusal rate was lower for YISS-1 at 18%.

Due to increasing reliance of the U.S. population on cell phones (Brick et al., 2007; Hu, Balluz, Battaglia, & Frankel, 2010), a cell-phone RDD sample was included in the YISS-3 study. At the end of data collection, 45 interviews had been completed by cell phone in addition to 1,515 landline interviews, resulting

in a total sample size of 1,560. Analysis of youth demographic and Internet use characteristics between the cell-phone and landline samples indicated the cell-phone sample included more respondents of Hispanic ethnicity and youth from families with a single, never-married parent.

### Procedures

For all three YISS studies, a sample size of 1,500 was predetermined based upon a maximum expected sampling error of  $\pm 2.5\%$  at the 5% significance level. Human subject participation in each YISS study was reviewed and approved by the University of New Hampshire's Institutional Review Board.

Interviewers first spoke by telephone with an adult and determined whether there was a child in the household between the ages of 10 and 17 years who had used the Internet at least once a month for the past 6 months. In households with eligible children, interviewers asked to speak with the adult who was most familiar with their children's Internet use and, after receiving informed consent, asked a series of questions about Internet use. In households with more than one eligible youth, the one who used the Internet the most often was chosen as the respondent. The interviewer then asked for permission to complete the survey with that youth. Parents were informed that the youth survey would be confidential, would include questions about "sexual material your child may have seen on the Internet," and that youth would receive \$10 for participating.

After receiving parental permission, interviewers spoke with the youth and asked for their permission to conduct an interview. Interviewers assured youth that they could skip any question they did not want to answer and end the telephone survey at any time. Interviews were scheduled at the convenience of youth and at times when they were able to talk freely and confidentially. The average youth interview lasted 30 min and the average adult interview lasted 10 min.

### Sample

There were some changes in the demographics and household characteristics across the three YISS samples (see Table 1 for details). Females made up approximately half the sam-

Table 1  
*Youth Internet Use Patterns Across YISS 1, 2, and 3 for all Youth and Youth Experiencing Harassment Victimization*

|                                                                              | All youth                           |                                     |                                     |         | Harassed youth |                                  |                                   |                                   |         |            |
|------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------|----------------|----------------------------------|-----------------------------------|-----------------------------------|---------|------------|
|                                                                              | 2000 YISS-1<br>(n = 1,501)<br>% (n) | 2005 YISS-2<br>(n = 1,500)<br>% (n) | 2010 YISS-3<br>(n = 1,560)<br>% (n) | p value | Cramer's V     | 2000 YISS-1<br>(n = 95)<br>% (n) | 2005 YISS-2<br>(n = 130)<br>% (n) | 2010 YISS-3<br>(n = 176)<br>% (n) | p value | Cramer's V |
| <b>Demographic characteristics</b>                                           |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| <b>Youth sex<sup>a</sup></b>                                                 |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| Male                                                                         | 53 (790)                            | 49 (738)                            | 50 (775)                            | .12     | .031           | 52 (49)                          | 42 (55)                           | 31 (55)                           | .004    | .167       |
| Female                                                                       | 47 (708)                            | 51 (760)                            | 50 (785)                            |         |                | 48 (46)                          | 58 (75)                           | 69 (121)                          |         |            |
| <b>Youth age</b>                                                             |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| 10–12 years                                                                  | 23 (337)                            | 23 (345)                            | 21 (333)                            | .02     | .036           | 19 (18)                          | 12 (16)                           | 11 (20)                           | .45     | .068       |
| 13–15 years                                                                  | 48 (725)                            | 43 (651)                            | 45 (694)                            |         |                | 49 (47)                          | 51 (66)                           | 50 (88)                           |         |            |
| 16–17 years                                                                  | 29 (439)                            | 34 (504)                            | 34 (533)                            |         |                | 32 (30)                          | 37 (48)                           | 39 (68)                           |         |            |
| <b>Youth race/ethnicity</b>                                                  |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| White                                                                        | 73 (1091)                           | 71 (1070)                           | 67 (1048)                           | .002    | .052           | 74 (70)                          | 81 (105)                          | 66 (116)                          | .05     | .139       |
| Black                                                                        | 10 (153)                            | 11 (161)                            | 13 (208)                            |         |                | 7 (7)                            | 6 (8)                             | 14 (25)                           |         |            |
| Hispanic                                                                     | 7 (108)                             | 9 (130)                             | 10 (152)                            |         |                | 13 (12)                          | 7 (9)                             | 9 (16)                            |         |            |
| Other                                                                        | 6 (94)                              | 6 (94)                              | 7 (117)                             |         |                | 2 (2)                            | 5 (6)                             | 8 (14)                            |         |            |
| Missing                                                                      | 4 (55)                              | 3 (45)                              | 2 (35)                              |         |                | 4 (4)                            | 1 (2)                             | 3 (5)                             |         |            |
| <b>Household income</b>                                                      |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| Less than \$20K                                                              | 8 (119)                             | 8 (123)                             | 12 (192)                            | <.001   | .172           | 6 (6)                            | 5 (7)                             | 12 (21)                           | .001    | .183       |
| \$20K to \$50K                                                               | 38 (575)                            | 27 (405)                            | 18 (287)                            |         |                | 42 (40)                          | 27 (35)                           | 23 (40)                           |         |            |
| \$51K to \$75K                                                               | 23 (350)                            | 24 (355)                            | 16 (245)                            |         |                | 22 (21)                          | 31 (41)                           | 18 (31)                           |         |            |
| More than \$75K                                                              | 23 (347)                            | 33 (494)                            | 45 (700)                            |         |                | 26 (25)                          | 30 (39)                           | 37 (65)                           |         |            |
| Missing                                                                      | 7 (110)                             | 8 (123)                             | 9 (136)                             |         |                | 3 (3)                            | 6 (8)                             | 11 (19)                           |         |            |
| <b>Internet use characteristics</b>                                          |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| <b>Location(s) youth spent time on the Internet in past year<sup>b</sup></b> |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| Home                                                                         | 74 (1109)                           | 91 (1363)                           | 97 (1506)                           | <.001   | .288           | 89 (85)                          | 94 (122)                          | 99 (175)                          | .001    | .190       |
| School                                                                       | 73 (1100)                           | 90 (1356)                           | 89 (1392)                           | <.001   | .214           | 74 (70)                          | 92 (119)                          | 89 (156)                          | <.001   | .202       |
| Friend's home <sup>c</sup>                                                   | 68 (1028)                           | 69 (1029)                           | 70 (1088)                           | .71     | .023           | 82 (78)                          | 79 (102)                          | 80 (140)                          | .79     | .034       |
| Cellular telephone                                                           | —                                   | 17 (249)                            | 47 (740)                            | <.001   | .330           | —                                | 28 (36)                           | 61 (107)                          | <.001   | .328       |
| <b>Last time youth used Internet</b>                                         |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| Past week                                                                    | 76 (1141)                           | 86 (1295)                           | 94 (1466)                           | <.001   | .149           | 81 (77)                          | 91 (118)                          | 94 (165)                          | .02     | .121       |
| Past 2 weeks                                                                 | 11 (157)                            | 6 (89)                              | 3 (47)                              |         |                | 7 (7)                            | 4 (5)                             | 3 (6)                             |         |            |
| Past month or longer                                                         | 13 (53)                             | 8 (116)                             | 3 (47)                              |         |                | 12 (11)                          | 5 (7)                             | 3 (5)                             |         |            |

Table 1 (continued)

|                                                                                     | All youth                           |                                     |                                     |         | Harassed youth |                                  |                                   |                                   |         |            |
|-------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------|----------------|----------------------------------|-----------------------------------|-----------------------------------|---------|------------|
|                                                                                     | 2000 YISS-1<br>(n = 1,501)<br>% (n) | 2005 YISS-2<br>(n = 1,500)<br>% (n) | 2010 YISS-3<br>(n = 1,560)<br>% (n) | p value | Cramer's V     | 2000 YISS-1<br>(n = 95)<br>% (n) | 2005 YISS-2<br>(n = 130)<br>% (n) | 2010 YISS-3<br>(n = 176)<br>% (n) | p value | Cramer's V |
| Number of hours youth spent on Internet on a typical day when online <sup>a</sup>   |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| 1 hr or less                                                                        | 61 (909)                            | 45 (679)                            | 38 (582)                            | <.001   | .151           | 38 (36)                          | 32 (42)                           | 28 (50)                           | .41     | .070       |
| More than 1 hr to 2 hr                                                              | 26 (389)                            | 31 (466)                            | 31 (471)                            |         |                | 31 (29)                          | 32 (42)                           | 30 (52)                           |         |            |
| More than 2 hr                                                                      | 13 (199)                            | 24 (352)                            | 32 (486)                            |         |                | 32 (30)                          | 35 (46)                           | 42 (74)                           |         |            |
| Number of days youth went on Internet in a typical week <sup>a,d</sup>              |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| 1 day or less                                                                       | 18 (228)                            | 8 (111)                             | 4 (62)                              | <.001   | .208           | 9 (8)                            | 2 (2)                             | 2 (4)                             | <.001   | .198       |
| 2 to 4 days                                                                         | 47 (598)                            | 42 (583)                            | 27 (407)                            |         |                | 45 (38)                          | 33 (40)                           | 21 (36)                           |         |            |
| 5 to 7 days                                                                         | 36 (458)                            | 49 (681)                            | 69 (1022)                           |         |                | 45 (38)                          | 66 (81)                           | 77 (131)                          |         |            |
| How youth used Internet <sup>b</sup>                                                |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| Went to chat room <sup>e</sup>                                                      | 56 (838)                            | 30 (452)                            | 48 (746)                            | <.001   | .215           | 79 (75)                          | 49 (63)                           | 66 (115)                          | <.001   | .237       |
| Social networking site                                                              | —                                   | —                                   | 80 (1247)                           | —       | —              | —                                | —                                 | 91 (160)                          | —       | —          |
| Who youth talked to online <sup>b</sup>                                             |                                     |                                     |                                     |         |                |                                  |                                   |                                   |         |            |
| People youth knew in person offline                                                 | 81 (1215)                           | 87 (1305)                           | 93 (1452)                           | <.001   | .148           | 94 (89)                          | 95 (124)                          | 98 (172)                          | .24     | .084       |
| People your age you see often                                                       | 67 (1007)                           | 77 (1160)                           | 88 (1372)                           | <.001   | .205           | 85 (81)                          | 93 (121)                          | 96 (168)                          | .01     | .151       |
| People your age you do not see often                                                | 47 (712)                            | 55 (828)                            | 75 (1165)                           | <.001   | .235           | 65 (62)                          | 83 (108)                          | 86 (152)                          | <.001   | .214       |
| People in your family you see often                                                 | 16 (243)                            | 52 (774)                            | 76 (1179)                           | <.001   | .489           | 16 (15)                          | 59 (77)                           | 85 (149)                          | <.001   | .552       |
| People in your family you do not see often, like relatives who live in other places | 31 (471)                            | 51 (759)                            | 72 (1119)                           | <.001   | .331           | 25 (24)                          | 65 (85)                           | 81 (142)                          | <.001   | .451       |
| Other people you know personally, like teachers or coaches or neighbors             | 27 (403)                            | 32 (472)                            | 41 (642)                            | <.001   | .127           | 54 (51)                          | 52 (67)                           | 52 (92)                           | .95     | .016       |

(table continues)

Table 1 (continued)

|                                                                                                                | All youth                                            |                                                      |                                                      |                | Harassed youth    |                                                   |                                                    |                                                    |                |                   |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|----------------|-------------------|---------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------|-------------------|
|                                                                                                                | 2000 YISS-1<br>( <i>n</i> = 1,501)<br>% ( <i>n</i> ) | 2005 YISS-2<br>( <i>n</i> = 1,500)<br>% ( <i>n</i> ) | 2010 YISS-3<br>( <i>n</i> = 1,560)<br>% ( <i>n</i> ) | <i>p</i> value | Cramer's <i>V</i> | 2000 YISS-1<br>( <i>n</i> = 95)<br>% ( <i>n</i> ) | 2005 YISS-2<br>( <i>n</i> = 130)<br>% ( <i>n</i> ) | 2010 YISS-3<br>( <i>n</i> = 176)<br>% ( <i>n</i> ) | <i>p</i> value | Cramer's <i>V</i> |
| People youth knew only online                                                                                  | 46 (685)                                             | 43 (645)                                             | 40 (619)                                             | .004           | .049              | 71 (67)                                           | 76 (99)                                            | 59 (103)                                           | .004           | .167              |
| People met online through family or friends                                                                    | 39 (578)                                             | 33 (490)                                             | 27 (416)                                             | <.001          | .104              | 67 (64)                                           | 64 (83)                                            | 40 (71)                                            | <.001          | .250              |
| People you get information from like when you're working on school projects but you do not know them in person | 20 (306)                                             | 15 (219)                                             | 20 (312)                                             | <.001          | .068              | 30 (28)                                           | 29 (38)                                            | 34 (60)                                            | .59            | .051              |
| People met through online dating or romance sites                                                              | —                                                    | 2 (24)                                               | 2 (24)                                               | .89            | .002              | —                                                 | 3 (4)                                              | 5 (8)                                              | .51            | .037              |
| People you know online other ways                                                                              | 33 (497)                                             | 27 (401)                                             | 17 (261)                                             | <.001          | .156              | 59 (56)                                           | 52 (68)                                            | 26 (45)                                            | <.001          | .301              |

*Note.* Some categories do not add to 100% because of rounding. YISS = Youth Internet Safety Survey.

<sup>a</sup> That column's *ns* do not sum to total *n* because of a small percentage (<.01) of missing data. <sup>b</sup> Multiple responses possible. <sup>c</sup> In YISS-1, we asked if youth used the Internet in "other households," which included friends' homes. In YISS-2 and YISS-3, we specifically asked all youth if they used the Internet at friends' homes. <sup>d</sup> Based on youth who used the Internet in the past week or past 2 weeks (*n* = 4,195 for all youth and *n* = 378 for harassed youth). <sup>e</sup> In YISS-1 and YISS-2, we asked one general question about using chat rooms; in YISS-3, we asked youth whether they used video chat (Chatroulette, Omegle, Skype) and chat rooms that do not include video separately. For the purposes of these analyses, these two separate categories were combined.

ple across all surveys, and approximately 80% of the sample was 13 through 17 years old. White youth made up a slightly smaller proportion of the YISS-3 sample of youth Internet users compared with YISS-1 and YISS-2. This was likely due to the increase in minority youth access to the Internet in recent years (Smith, 2010). The YISS-3 sample also included a greater percentage of youth from high-income and well-educated households. This reflects some of the demographic differences found in landline telephone surveys: Low-income families are increasingly more likely to live in cell-phone-only households (Hu et al., 2010).

Across all of the YISS samples, well-educated and high-income families, and White youth, are overrepresented compared with the national average, but the skewed distribution reflects the population of youth Internet users at the time of each data collection (Pew Research Center, 2011).

## Measures

The YISS surveys involved structured questions with mostly dichotomous (yes/no), numerical, or categorical (e.g., a, b, c, or d) responses required. Occasionally, questions required a short open-ended response. The incidence rates for harassment were estimated based on yes–no questions about unwanted experiences while using the Internet in the past year (“past year” refers to the year prior to the interview). Unless otherwise specified, the questions used in the current article were identical across all YISS studies.

*Online harassment victimization* was defined as threats or other offensive behavior (not sexual solicitations) that were sent online to the youth or posted online about the youth for others to see. Harassment was measured through endorsement of at least one of the following two screener questions:

- “In the past year, did you ever feel worried or threatened because someone was bothering or harassing you online?”
- “In the past year, did anyone ever use the Internet to threaten or embarrass you by posting or sending messages about you for other people to see?”

We labeled the first question as “direct harassment” because the action involved a specific harassment behavior directed at the target. We labeled the second question as “indirect harass-

ment” because the action, although affecting the target negatively, was directed at other people. This distinction is akin to the off-line difference between verbal harassment and spreading rumors, also labeled “direct” and “indirect” in the bullying literature (Lagerspetz, Bjrkqvist, & Peltonen, 1988).

**Harassment incident characteristics.** Respondents endorsing at least one of the screener questions were then asked for more detailed information, including characteristics of the harasser and the event. If youth experienced harassment more than once in the past year, they were asked to provide details for the event that was most bothersome. If no event was more bothersome than another, they were asked to provide details for the most recent event.

*Distressing harassment* was defined as online harassment incidents in which youth rated themselves very or extremely upset or afraid as a result of the incident (4 or 5 on a scale of 1 to 5). *Repeated harassment* was defined as an incident of online harassment involving more than one harassing behavior on the part of the perpetrator. Both distressing and repeated harassment incidents represent behaviors that have the potential to be more serious forms of online harassment.

**Online harassment behaviors.** Two questions about respondents’ own harassing behaviors online were also asked in each of the YISS surveys. Specifically, youth were asked whether, in the past year, they had ever (a) made rude or nasty comments to someone on the Internet, or (b) used the Internet to harass or embarrass someone they were mad at. Results are presented separately for each question and combined.

**Internet use characteristics.** Youth respondents answered a number of questions about their Internet use. Specifically, we asked youth about the last time they used the Internet (past week, past 2 weeks, past month or longer), the number of days they went online in a typical week, and the number of hours they spent online in a typical day. Youth were asked where they used the Internet, including from their home, school, a friend’s home, a cell phone (in 2005 and 2010 only), or some other place. We asked whether youth used the Internet to go to chat rooms and social networking sites. Finally, we asked youth about their communication online with people they knew in person (e.g., people their own age that they see often, like

friends from school) and people they only knew online (e.g., people they get information from, like when they are working on school projects but they do not know them in person).

**Demographic information.** Caregivers reported on the youth's gender, age, the highest household education, and the previous year's household income. Youth reported information on race and ethnicity.

## Analyses

Differences between YISS-1, YISS-2, and YISS-3 (among all youth and among youth who reported being harassed online) were tested for statistical significance using Pearson chi-square analyses. SPSS 19.0 was used for all analyses.

## Results

There were significant changes from 2000 to 2010 in the intensity of youth Internet use and ways that youth used the Internet (see Table 1). A greater percentage of the YISS-3 sample used the Internet from home (97%) compared with the YISS-1 sample (74%),  $p < .001$ . Youth in the YISS-3 sample were more likely to have used the Internet within the past week ( $p < .001$ ), to be online more than 2 hr on a typical day ( $p < .001$ ), and use the Internet 5 to 7 days during a typical week ( $p < .001$ ) when compared with the YISS-1 sample. The use of chat rooms by online youth declined from a high in YISS-1 (79%), decreased significantly in YISS-2 (49%), but increased in YISS-3 (66%),  $p < .001$ . However, it is likely that the nature of chat rooms visited by youth in 2000 versus 2010 were different, as discussed later in more detail. In YISS-3, 80% of the sample used the Internet to visit social networking sites like Facebook (questions about social networking sites were not asked in YISS-1 and YISS-2). Finally, across the three YISS surveys, youth notably changed the types of individuals they interacted with online in significant ways. There was a significant increase, for example, in the percentage of youth who talked online with friends they saw often (from 67% in YISS-1% to 88% in YISS-3;  $p < .001$ ) and a significant decrease in the percentage of youth who talked to people they had met online (from 46% in YISS-1% to 40% in YISS-2;  $p = .004$ ). Effect sizes (Cramer's V) calculated for these changes indicate

that, for the most part, the differences in Internet use across YISS cohorts were substantial.

## Trends in Online Harassment Victimization and Behavior

Although the proportion of youth who were victims of any online harassment increased across the three YISS administrations, from 6% in 2000 to 11% in 2010, the increase was driven by a greater proportion of youth in 2010 who endorsed the "indirect harassment" screening question that they were "threatened or embarrassed by someone posting or sending messages about them online" (see Table 2). Youth experiencing such incidents increased from 2% in 2000 to 5% in 2010 ( $p < .001$ ). By contrast, the "direct harassment" question about being "bothered or harassed online" increased by an amount that was not statistically significant. Harassment incidents that represented more concerning episodes—those in which the youth was upset or embarrassed as a result, or the behavior happened more than once—increased in similar proportion to overall harassment. Distressing harassment increased from 3% in 2005 to 5% in 2010 ( $p < .01$ ). Repeated harassment increased from 2% in 2000 to 5% in 2010 ( $p < .001$ ). Effect size estimates suggest that differences in victimization types across samples were small.

The YISS studies also showed a steady increase in the percentage of youth who reported harassing behavior toward others between 2000 and 2010. The majority of this behavior took the form of making "rude or nasty" comments online, which increased from 14% in 2000 to 40% in 2010 ( $p < .001$ ). This question is not parallel to the victimization questions, which focus on the experience of the victim feeling worried or threatened by the behavior. No follow-up information is available on the circumstances or targets of the rude or nasty online comments. Reports of harassing or embarrassing someone they were mad at online was less common, but this also increased from 1% of youth endorsing this item in 2000 to 10% in 2010 ( $p < .001$ ).

## Changes in Demographics and Internet Use for Harassed Youth

Table 1 shows changes in the demographic and Internet use characteristics of the youth who reported incidents of online harassment in each

Table 2  
*Changes in Online Harassment Victimization and Behavior Patterns Across YISS 1, 2, and 3*

|                                                                                    | 2000 YISS-1<br>( <i>n</i> = 1,501)<br>% ( <i>n</i> ) | 2005 YISS-2<br>( <i>n</i> = 1,500)<br>% ( <i>n</i> ) | 2010 YISS-3<br>( <i>n</i> = 1,560)<br>% ( <i>n</i> ) | <i>p</i> value | Cramer's V |
|------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|----------------|------------|
| Harassment victimization                                                           |                                                      |                                                      |                                                      |                |            |
| Any harassment victimization                                                       | 6 (95)                                               | 9 (130)                                              | 11 (176)                                             | <.001          | .072       |
| Bothered or harassed online                                                        | 4 (65)                                               | 6 (85)                                               | 6 (90)                                               | .14            | .029       |
| Threatened or embarrassed by someone posting or sending messages about them online | 2 (31)                                               | 3 (46)                                               | 5 (86)                                               | <.001          | .078       |
| Distressing harassment <sup>a</sup>                                                | 3 (37)                                               | 3 (50)                                               | 5 (78)                                               | .001           | .057       |
| Repeated harassment <sup>b</sup>                                                   | 2 (29)                                               | 4 (54)                                               | 5 (71)                                               | .000           | .060       |
| Harassing behavior                                                                 |                                                      |                                                      |                                                      |                |            |
| Any harassment behaviors                                                           | 15 (219)                                             | 29 (435)                                             | 41 (637)                                             | <.001          | .239       |
| Made rude/nasty comments online                                                    | 14 (215)                                             | 28 (416)                                             | 40 (620)                                             | <.001          | .233       |
| Harassed/embarrassed someone mad at online                                         | 1 (19)                                               | 9 (129)                                              | 10 (152)                                             | <.001          | .151       |

Note. YISS = Youth Internet Safety Survey.

<sup>a</sup> Harassment incident in which the youth described feeling very or extremely upset or afraid as a result. <sup>b</sup> Online harassment incidents involving more than one harassing behaviors by same perpetrator.

YISS study. The rates of female versus male victims of online harassment changed significantly across the three YISS samples. In 2000, the sample of harassed youth was equally split between males and females, but by 2010, 69% of harassed youth were female ( $p < .01$ ). This difference stands in contrast to the lack of significant changes in respondent sex in the full YISS samples. There was no change, however, in age distribution of harassment victims, with 13- to 15-year-olds making up the largest proportion of harassed youth in all three cohorts. From 2000 to 2010, a greater percentage of youth reporting online harassment was non-White and from higher income households, although these trends parallel the changes in overall sample demographics, as described previously.

Trends in Internet use by harassed youth parallel trends in the full sample. Like all youth, harassed youth were using the Internet from more locations from 2000 to 2010 (see Table 1), and the percentage of those who used the Internet 5 to 7 days a week increased in similar ways to the full sample, from 45% of the sample in 2000 to 77% of the sample in 2010 ( $p < .001$ ). However, at each time point, harassed youth were using the Internet more frequently than nonharassed youth. For example, in the 2010 survey, harassed youth were more likely than nonharassed youth to use the Internet more than 2 hr per day (42% compared with 30%;  $p <$

.01). Similarly, harassed youth were significantly more likely than nonharassed youth to use the Internet 5 to 7 days in a typical week (77% compared with 67%;  $p < .05$ ).

There were also significant changes in the places that youth frequented on the Internet and who they communicated with between 2000 and 2010. Chat rooms were very popular places for youth in 2000, but declined in popularity for both the overall sample of youth and harassed youth by 2005. The use of chat rooms increased between 2005 and 2010, possibly related to the popularity of video chat rooms and video tools such as Skype. Questions about social networking activities were only asked in YISS-3 because, although some social networking sites were available in 2000 (e.g., geocities, theGlobe.com), it was not clear then, or even in 2005, that websites such as MySpace and Facebook were going to become so popular among youth. But looking at the most recent survey, data from YISS-3 show that 91% of harassed youth frequented social networking sites in 2010 compared with 79% of nonharassed youth ( $p < .001$ ). When limited to only youth 13 years and older, 96% of harassed youth were spending time on social networking sites compared with 89% of nonharassed youth ( $p < .01$ ).

Over 90% of harassed youth were using the Internet to talk to people they knew offline, even in 2000 (YISS-1). Looking within specific

communication groups, however, harassed youth were using the Internet to talk with friends, peers, family members, and acquaintances significantly more in YISS-3 compared with YISS-1. There were particularly large increases in the percentage of youth who used online communications to talk to family members. In 2000, 16% of harassed youth talked online to family members they saw often and 25% talked to family members they did not see often; in 2010, the respective numbers were 85% and 81% ( $p < .001$ ). On the other hand, for both the full sample and the subsample of harassed youth, communication with individuals that they only knew online decreased significantly. For harassed youth, only 59% were communicating with online-only acquaintances in 2010 compared with 71% in 2000 ( $p < .01$ ). As was observed with the overall sample, effect sizes indicate that harassed youth were using the Internet in substantially different ways across YISS cohorts.

Follow-up analyses were conducted comparing Internet use trends for male and female youth. Although there were no differences for girls and boys in the frequency of Internet use or their use of social networking sites, girls were significantly more likely to use the Internet to talk with friends, family, and acquaintances. Ninety-two percent of girls reported talking with friends online compared with 84% of boys ( $p < .000$ ); 81% of girls talked with family online compared with 69% of boys ( $p < .000$ ); and 46% of girls talked with other offline acquaintances compared with 36% of boys ( $p < .000$ ).

### **Changes in Online Harassment Incident Characteristics**

Table 3 presents information on changes in harassment incident characteristics across the three YISS studies. Between 2000 and 2010, according to victim reports, an increasing percentage of aggressors were female. An increased percentage of aggressors were also identified as friends from school and, decreasingly, persons that the youth had met online. Specifically, by 2010, 48% of aggressors were female compared with 20% in 2000 ( $p < .001$ ); 58% were a school friend or acquaintance compared with 23% in 2000 ( $p < .001$ ). The age of harassers did not change over time: In all three

waves, most victims either knew or believed the harasser was under the age of 18 years (across the three surveys, 16 to 20% of respondents reported they did not know the age of the harasser; see Table 3 for categories). Similarly, there was no change in the proportion of cases that involved one (72% in 2010) versus multiple aggressors. There were, however, very significant differences in where the online harassment incidents occurred. In 2010, the majority of online harassment incidents (82%) occurred on social networking sites. Although questions were not asked about social networking locations in YISS-1 or YISS-2, and it is possible that some of the "chat rooms" endorsed by youth in those surveys included some early social networking sites, the overwhelming migration to social network site activity in recent years has altered the environment for online harassment behaviors.

The proportion of online harassment incidents that were disclosed overall did not change, but at all three time points, the majority of online harassment incidents were disclosed and the trend was increasing in the direction of more disclosure. There were changes in the recipients of the disclosures, however. Most notably, disclosure to school staff increased from 2% in 2005 to 12% in 2010 ( $p < .01$ ). Disclosure to a parent or guardian decreased between 2000 and 2005, but then increased from 32% to 40% in 2010. There were also changes in how the harassment incident was resolved. In 2010, youth were significantly less likely to end the harassment by removing themselves from the situation (e.g., blocking the harasser, leaving site or the computer). In 2010, the incident was also more likely to end without the youth doing anything. Reporting the harassment to an authority (i.e., Internet service provider, CyberTipline, police) initially declined from 21% in 2000 to 9% in 2005, but increased slightly in 2010 (13%). There was a very large increase in the "other" resolution category, up from 27% in 2000 to 42% of youth in 2010 claiming that the situation ended in a way other than those specified. Unfortunately, no details are available to help us understand what these other strategies or events include.

We examined these same incident characteristic trends for the subset of distressing harassment cases (analyses not shown) and found similar patterns. The percentage of distressing

Table 3  
*Cross-Tabulated Percentage Differences for Online Harassment Incident Characteristics and Outcomes Across YISS 1, 2, and 3*

|                                                                       | 2000 YISS-1<br>(n = 95)<br>% (n) | 2005 YISS-2<br>(n = 130)<br>% (n) | 2010 YISS-3<br>(n = 176)<br>% (n) | p value | Cramer's V |
|-----------------------------------------------------------------------|----------------------------------|-----------------------------------|-----------------------------------|---------|------------|
| Incident characteristics                                              |                                  |                                   |                                   |         |            |
| Gender of harasser                                                    |                                  |                                   |                                   | <.001   | .193       |
| Male                                                                  | 54 (51)                          | 51 (66)                           | 43 (76)                           |         |            |
| Female                                                                | 20 (19)                          | 29 (37)                           | 48 (84)                           |         |            |
| Don't know                                                            | 26 (25)                          | 21 (27)                           | 9 (16)                            |         |            |
| Age of harasser                                                       |                                  |                                   |                                   | .21     | .102       |
| Under 18                                                              | 63 (60)                          | 59 (76)                           | 71 (124)                          |         |            |
| 18 to 25 years                                                        | 13 (12)                          | 21 (27)                           | 12 (21)                           |         |            |
| Older than 25                                                         | 1 (1)                            | 2 (3)                             | 2 (3)                             |         |            |
| Don't know                                                            | 23 (22)                          | 19 (24)                           | 16 (28)                           |         |            |
| Relation to harasser                                                  |                                  |                                   |                                   | <.001   | .231       |
| Met online                                                            | 71 (67)                          | 55 (71)                           | 31 (55)                           |         |            |
| School friend/acquaintance                                            | 23 (22)                          | 36 (47)                           | 58 (102)                          |         |            |
| Other offline acquaintance                                            | 5 (5)                            | 7 (10)                            | 8 (14)                            |         |            |
| Don't know                                                            | 1 (1)                            | 2 (2)                             | 3 (5)                             |         |            |
| Number of people who did this                                         |                                  |                                   |                                   | .91     | .052       |
| 1                                                                     | 78 (74)                          | 73 (95)                           | 72 (127)                          |         |            |
| 2-3                                                                   | 14 (13)                          | 19 (24)                           | 19 (33)                           |         |            |
| 4 or more                                                             | 6 (6)                            | 5 (7)                             | 5 (9)                             |         |            |
| Don't know                                                            | 2 (2)                            | 3 (4)                             | 4 (7)                             |         |            |
| Where on the Internet this first happened                             |                                  |                                   |                                   | <.001   | .653       |
| Using an e-mail account                                               | 19 (18)                          | 13 (17)                           | 2 (3)                             |         |            |
| Chat room                                                             | 32 (30)                          | 11 (15)                           | 4 (7)                             |         |            |
| Instant messaging                                                     | 34 (32)                          | 47 (61)                           | 2 (3)                             |         |            |
| Social networking                                                     | 0 (0)                            | 0 (0)                             | 82 (144)                          |         |            |
| Texting                                                               | 0 (0)                            | 0 (0)                             | 3 (5)                             |         |            |
| Other                                                                 | 14 (13)                          | 26 (34)                           | 5 (9)                             |         |            |
| Don't know                                                            | 2 (2)                            | 2 (3)                             | 3 (5)                             |         |            |
| Harassing behaviors occurred more than one time                       | 31 (29)                          | 42 (54)                           | 40 (71)                           | .19     | .091       |
| Incident outcomes                                                     |                                  |                                   |                                   |         |            |
| Incident was disclosed to someone <sup>a</sup>                        | 64 (61)                          | 69 (88)                           | 75 (130)                          | .18     |            |
| Friend                                                                | 34 (32)                          | 40 (52)                           | 37 (65)                           | .62     | .049       |
| Sibling                                                               | 3 (3)                            | 5 (7)                             | 7 (12)                            | .45     | .063       |
| Parent/guardian                                                       | 51 (48)                          | 31 (41)                           | 40 (71)                           | .02     | .144       |
| School staff                                                          | 6 (6)                            | 2 (3)                             | 12 (21)                           | .006    | .160       |
| Other                                                                 | 5 (5)                            | 8 (10)                            | 8 (14)                            | .69     | .043       |
| How situation ended <sup>a</sup>                                      |                                  |                                   |                                   |         |            |
| Removed self from situation (blocked harasser, left site or computer) | 47 (45)                          | 49 (63)                           | 23 (40)                           | <.001   | .260       |
| Told harasser to stop                                                 | 12 (11)                          | 17 (22)                           | 13 (23)                           | .47     | .061       |
| Changed screen name, profile, e-mail address, or phone number         | 0 (0)                            | 3 (4)                             | 1 (2)                             | .15     | .097       |
| Stopped without youth doing anything                                  | 9 (9)                            | 5 (6)                             | 14 (24)                           | .03     | .132       |
| Situation still happening                                             | 3 (3)                            | 1 (1)                             | 5 (8)                             | .16     | .096       |
| Other                                                                 | 27 (26)                          | 31 (40)                           | 41 (73)                           | .04     | .129       |
| Incident ever reported to ISP, CyberTipline, or police                | 21 (20)                          | 9 (12)                            | 13 (23)                           | .04     | .128       |

*Note.* Some categories do not add to 100% because of rounding and/or missing data. ISP = Internet service provider; YISS = Youth Internet Safety Survey.

<sup>a</sup> Multiple responses possible.

incidents that were perpetrated by females jumped from 24% in 2000 and 2005 to 55% in 2010. Overall disclosure of distressing harassment incidents significantly increased from 2000 to 2010: 87% of distressing harassment incidents were disclosed in 2010 compared with 68% in 2000 ( $p < .05$ ), with an increase in disclosures to school staff (21% in 2010 compared with 11% in 2000;  $p < .01$ ) driving the overall increase.

### Discussion

This article explored trends in youth online harassment identified by three YISS surveys conducted in 2000, 2005, and 2010. Although there was a small but significant increase in youth online harassment from 6% in 2000 to 11% in 2010, the percentage of more serious harassment, either repeated harassment or incidents that caused victims distress, were experienced by only 5% of youth in 2010, respectively. Although the trend supports claims by experts (e.g., Fredstrom et al., 2011; Juvonen & Gross, 2008; Kowalski & Limber, 2007; Mishna et al., 2009) and the media (e.g., Block, 2010; Dorsett, 2010; McNamara, 2009) that online harassment is becoming more common, the data also show that victimization rates are relatively low and the size of the increase over the 10-year period has been small. Furthermore, the increase appears to be mostly driven by a rise in indirect harassment, that is, comments sent or posted to others in a way that is visible to victims. This finding suggests that popular social network sites may have resulted in more opportunity for youth to embarrass or upset their peers via negative or threatening comments or pictures posted publicly. In 2010, the overwhelming majority of harassment incidents were occurring on social networking sites and increasingly involved communication with school friends. It is likely that youth are able to see more negative comments about themselves in the exchanges among their school-based peer groups via social networking sites than used to be the case. It should be noted, however, that not all negative online experiences have increased along with the changing online activities; unwanted sexual solicitations actually decreased during this same period (Jones et al., 2012), perhaps because social networking plat-

forms facilitate more targeted peer-group interactions and decrease anonymity.

Another notable trend in online harassment was a large increase in the proportion of female victims and perpetrators, where female victims rose from 48% to 69% and female perpetrators rose from 20% to 48%. In fact, rates for males calculated separately did not rise during this 10-year period. The peer aggression research has long noted that females tend to predominate in verbal and relational types of aggression (Espelage & Swearer, 2004), and the social networking platforms are clearly more suited to such exchanges than physical aggression and intimidation. It may be that the online environments' suitability for female-preferred types of hostility has prompted the gender-skewed increase.

While the YISS harassment perpetration questions were not parallel to the victimization questions, youth reports of their own negative online behaviors also increased from 2000 to 2010. Youth reported significantly more harassment perpetration as well as increased rates of making rude or nasty comments online. We did not collect incident-level details on harassment perpetration reported by respondents, so we are unable to reflect on their targets or effects, or even on whether they were directed at a particular individual (versus, for example, a rude comment made on a Web site or through Twitter). But the increase and the high rates of such behavior reported in YISS-3 suggest that more information on these behaviors is needed to inform prevention. It could be that there are features of the Internet that encourage rude behavior, or it might be that adolescent culture is just becoming increasingly reflected in the online environment. Although adults worry that any kind of rude behavior online by youth has problematic consequences, it is important, for education purposes, to identify which youth online behaviors actually result in measurable negative outcomes.

An encouraging trend that we observed in the YISS studies was an increase in disclosures about online harassment to school staff. Although the rate of such disclosures was still small in 2010 (12%), it may reflect an increasing involvement of schools in this problem. Schools have been attempting to provide more Internet safety and bullying-prevention education (Crosse et al., 2011), and this may be

encouraging students to make reports about such behavior to school officials.

### Limitations

Although this is one of the first studies to present trend information on online harassment encounters, it has a number of limitations that should be taken into account by readers. First, the decade of this study was one during which new challenges confronted the conduct of survey research, including declining response rates and increasing use of cell phones. Some of the differences in response rates are due to the degree to which prescreened numbers were used, but this is unlikely to have affected the comparability of the final samples to any large degree; all YISS samples were based on a sample that originated with an RDD process. Furthermore, analyses suggest that the decline in participation has not influenced the validity of most surveys conducted by reputable surveying firms (Keeter, Kennedy, Dimock, Best, & Craighill, 2006). Keeter and colleagues (2006) note that, compared with government benchmarks, the demographic and social composition of telephone survey samples are quite representative on most measures (p. 777). Nonetheless, all of these challenges may have affected the findings in ways we cannot account for. Second, our study did not gather information about harassment that was happening to youth in offline face-to-face contexts. A complete understanding of online harassment should ideally occur in the framework of understanding more about young people's social relationships and the conflicts that occur both offline and online. Third, YISS-1 was designed in 2000, and as youth Internet use changed, many questions had to be adapted, such as youth movement to social networking sites, their use of cell phones to access the Internet, and the increased use of video-chat features. This meant incomplete information in some respects (e.g., questions on social network site use were absent in YISS-1 and YISS-2) and the possibility that the same terms meant different things to the different YISS survey cohorts (e.g., "chat room"). Survey length issues meant that we had to limit information collected about online harassment perpetration and even about the harassment victimization incidents themselves. Finally, because each survey was cross-sectional and based on survey cohorts that likely

differed in a number of ways, explanations for the trends should be considered exploratory (Baltes, Reese, & Lipsitt, 1980).

### Clinical, Policy, and Research Implications

Despite these limitations, the online harassment trends highlight some important directions for prevention, policy, and future research on this topic. Overall harassment did increase but rates are still low, especially for the distressing episodes. The increase did not seem disproportional to the increased amount of time youth are now spending online. Some have suggested that the nature of the online environment may influence an increasing number of youth to engage in peer harassment (Fredstrom et al., 2011; Juvonen & Gross, 2008; Kowalski & Limber, 2007; Mishna et al., 2009; Li, 2006; Tokunaga, 2010), implying that this is something they might not otherwise do; but this is not consistent with the trends, in our view. It appears more plausible to us that the increasing amount of youth interaction online, plus an environment that allows more interactions among friends to be observed, has simply increased the likelihood that typical youth behavior of all kinds, including intended and unintended hostilities, are expanding to online spaces and being observed there. This is obviously something that will merit further investigation. Although peer harassment using new technology appears to have some of the same emotional consequences for youth as harassment without it (Beran & Li, 2007; Hinduja & Patchin, 2010; Juvonen & Gross, 2008), there is no evidence yet that the consequences are more severe.

The fact that online harassment has been increasing over the first decade of the 2000s, especially when unwanted online sexual solicitations have declined, suggests to us that policy attention toward online peer harassment and victimization and away from "online predators" is an appropriate development. Nonetheless, the study does not support the reports made across some policy circles or in media stories of a cyberbullying epidemic (see, e.g., Downey, 2011). Public anxiety about cyberbullying appears to have outpaced the reality of both the scope and impact of the problem of online harassment, particularly in comparison with other victimization concerns that youth face (Finkelhor, Turner, Ormrod, & Hamby, 2009). Youth

trend research, in fact, suggests that, over the past couple of decades, bullying has been declining (Finkelhor, Turner, Ormrod, & Hamby, 2010) and youth report feeling more safe at school (Robers et al., 2012).

There are nonetheless some important policy and practice implications from the study. One lesson is that it is clear that changes in online safety concerns can occur rapidly because of the dynamic nature of digital media and new technology. Our data suggest that the popularity of social networking sites, for example, may have influenced the rate and nature of online risks for youth over a short period of time. Rates of youth experiencing an online sexual solicitation (requests for sexual activity, discussion, or pictures) declined substantially from YISS-1 to YISS-3 (Jones et al., 2012). The data on sexual solicitations suggested that a plausible explanation for the decline was the movement of youth online from anonymous “chat rooms” in the early part of the decade to communication with peers on social networking sites. On the other hand, according to the current study, the increase in the use of social networking sites by youth also appears to have possibly increased youth experiences of indirect online harassment. Youth online activity will probably continue to develop and change in unexpected ways, and one implication is the need for the technology sector to expand their role as sentinels for youth safety. We have seen engagement by many technology companies in providing safety solutions, monitoring youth safety and behavior, and providing resources to youth, such as options for reporting abusive content. It will be important for technology companies to continue such involvement, structuring and engineering their sites in ways that further improve the online experience for youth and increase their safety in the future.

On the other hand, for educators and parents who worry they cannot keep up with the rapid shifts in youth technology use, our data can provide some reassurance. Distressing online harassment experiences occurred only to a minority of youth and there is no indication, even across the shifting technological developments of the last decade, that this type of victimization is something significantly different from the peer victimization problems that have always been, and continue to be, a concern for youth. In fact, whether on-

line or offline, the degree of distress caused by a harassment or victimization incident is probably influenced by particular and measurable factors—a believable physical threat, sexual taunts, a sense of powerlessness, or a greater number of perpetrators or witnesses, for example. There may be ways that the online environment might increase the rate of certain highly negative features, such as more witnesses or perhaps greater powerlessness under some conditions. Such hypotheses should be the focus of future research efforts. But even if that is the case, the *conditions* causing the distress are not new and therefore the focus of prevention and education efforts can apply to many different environments and locations, including shifting and even unpredictable online settings.

There are additional implications of the findings for educators and policymakers interested in prevention. Many education programs have developed in response to concerns about cyberbullying, but most of these programs have been untested and rely on educational strategies such as single-session, lecture-only assemblies that have been shown by well-designed prevention research to be ineffective (Jones & Finkelhor, 2011). Yet even if schools were able to identify research-based online harassment prevention interventions, it is unclear whether a unique focus on online harassment or cyberbullying is advisable, given increasing requirements on schools during an era of decreasing resources. The data from several studies (Beran & Li, 2007; Juvonen & Gross, 2008; Olweus, 2012; Raskauskas & Stoltz, 2007; Ybarra, Diener-West, & Leaf, 2007) suggests that online harassment is often an extension of offline peer problems, with disagreements expanding into a more public space. A good deal of research is still needed to understand the broader context of online harassment—for example, how often, and under what circumstances, incidents of serious online harassment are part of an ongoing offline peer victimization. But to the extent this is happening, schools can play a critical role and can likely make the biggest difference by implementing evidence-based bullying programs and social-emotional learning programs that have incorporated information about online harassment and behavior into their curricula. One of the key critical com-

ponents of prevention is a focus on skill building; students are taught relational and social skills such as perspective-taking, emotional regulation, communication skills, and effective bystander intervention skills (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). These are skills that would likely translate to any environment or communication modality, including the Internet and cell phones, and minimizes the concern adults have about predicting which Web sites or technologies are going to be the next popular trend among youth.

The study findings do provide some suggestions for those seeking to update evidence-based programs by incorporating online communication and harassment. First, there are some important trend differences by gender that have implications for both the messages and targets of prevention efforts. Program developers and educators should be aware that online communication networks appear to provide an environment that is particularly suited to the kinds of harassment behaviors most likely to be used by girls. Although there have been mixed findings on Internet harassment and gender (Beran & Li, 2007; Juvonen & Gross, 2008; Slonje & Smith, 2008; Tokunaga, 2010; Williams & Guerra, 2007), most research seems to support that girls are disproportionately victims and perpetrators of this form of harassment. Bullying and social-emotional learning programs should make sure they are targeting skills that can help girls negotiate peer conflict and anger issues that lead to relational and verbal harassment behaviors online and offline. Role-playing and discussion exercises should reflect conflict patterns and scenarios that are typical among girls' social networks in order to allow them to identify and practice prosocial skills relevant to their peer culture.

Second, the findings from our research that online harassment has increased among school peers also suggests that schools will need to make sure that their bullying and harassment policies include online harassment incidents. Even though some of these behaviors occur outside of school, they can result in disruptions in school functioning, safety, or security for students. School districts should be clear about their policies in response to disclosures or discoveries of online harassment. Legislation is increasingly

requiring schools to adopt policies on cyberbullying and consequences for ignoring the impact of this new environment on school bullying policy or dismissing the problem as "not school related" can result in even more complicated legal crises when they occur (Willard, 2007). Policy recommendations are available for school districts seeking to amend policies and looking for advice on defining how and when online bullying and harassment occurring outside of school may require school intervention (Cross, Monks, Campbell, Spears, & Slee, 2011; Hinduja & Patchin, 2009; Willard, 2007).

Finally, our findings suggest the need for several additional areas of follow-up research. There is a need for understanding more about the aftermath of online harassment episodes, including how they are successfully resolved. Included in this should be information about whether and when disclosing to parents, school staff, and other adults is beneficial. "Tell an adult" is a common recommendation made by cyberbullying prevention experts, but we need more information about the situations in which this is actually helpful to youth, as well as the most helpful responses by parents and school personnel. Such information would be very useful for practitioners trying to provide advice to youth and parents. There is also a need for more research about the most distressing kinds of harassment. It appears that relatively few youth suffer repeated, distressing incidents, but the number is still substantial (see, for example, Ybarra et al., 2007). This is the group that needs particular attention from practitioners. More research is needed to help clinicians and schools identify these youth and provide effective services to victims, and studies will be needed with large enough samples to fully characterize the dynamics of these episodes. There is also a critical need for research that measures the positive aspects of online communication with peers and family, in addition to the negative aspects. The literature about online communication has been very one-sided, failing to reflect the enthusiasm that young people have about the medium. Without understanding the full experience of youth online, the ways that it benefits them, as well as their negative expe-

riences, it is unlikely that adult-driven initiatives will connect with this audience.

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