

Who bullies and who is bullied online?

A study of 9-16 year old internet users in 25 European countries

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Summary

- 93% of 9-16 year old internet users in Europe have neither bullied nor been bullied online. Those who have bullied or been bullied online are more vulnerable psychologically or from their socio-demographic background.
- Bullying, and having been bullied online mostly go hand in hand. Around 60% of those who bully have been bullied by others. Bullying and being bullied by others mostly occur through similar modes. Of those who have bullied others *offline*^a, 57% have been bullied, though only 10% were bullied online. Of those who have bullied others *online*, a similar number have been bullied (58%) but 40% online.
- Those involved in online bullying (whether as bully or victim) are more likely to have a social networking profile and to meet new contacts online compared with those involved (as bully or victim) in offline bullying only.
- When bullied online, bullies are more likely than others to say they “feel guilty” or “try to get back at the other person”, but they are less likely than others to say they “try to fix the problem”.
- Online bullies differ from offline bullies in their internet behaviours and attitudes but not in their offline behaviours. Gender differences in offline bullying (more boys) do not occur online.

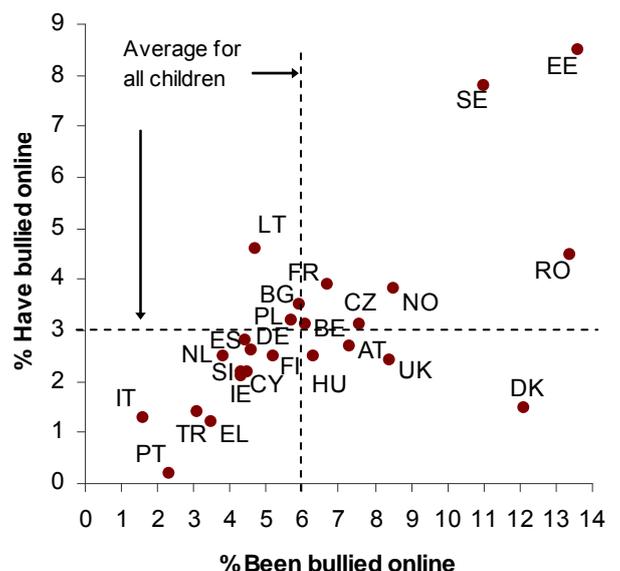
Implications

- Those children who are bullied or bully online differ little from those bullied or who bully offline except they use the affordances of the internet (e.g. the chance to meet new people online or to network with peers).
- Online bullies and those being bullied online are those children who are mostly also vulnerable, psychologically and/or socially.
- Supporting both those who have been bullied and have bullied others online could decrease the occurrence and consequences of online bullying. This support could be provided offline or online (e.g. via peer mentoring schemes).

Bullying and being bullied online go hand in hand

Being bullied is one of several risks that may harm children when they use the internet. In some sense, bullying builds on children’s availability through and/or conduct in peer-to-peer exchanges and, often, the threat comes from a peer. This report reveals how many children are being bullied online and how many bully others online^b, before asking (see next page):

Figure 1: Children’s accounts of whether they have been or have bullied others online by country



Note: The country level correlation between bullying and being bullied online is statistically significant, Pearson’s $r = .69$; $p < .001$.

QC115: At any time during the last 12 months has this [you have been treated in a hurtful or nasty way] happened on the internet?
 QC127: In which of the following ways have you [acted in a way that might have felt hurtful or nasty to someone else] in the past 12 months? On the internet.

Base: All children who use the internet.

^aIn this report being involved in offline bullying (as bully or victim) refers to bullying offline only excluding those involved in online bullying, but being involved in online bullying refers to bullying online and can but must not include those involved in bullying offline also.

^bThe terms ‘bully’, ‘bullied’ and ‘bully victim’ are used in this report for convenience. However, in the interviews children were asked about being treated/treating people in a hurtful or nasty way on the internet, and this could include anything from single to repeated or persistent occurrences.

- What are the characteristics of those that either have been bullied online, have bullied others online or both?
- Is bullying others related to being bullied by others and how is this relation between off- and online bullying?
- What do children say they do when being bullied online and, specifically, might bullying others possibly be a means of seeking revenge when being bullied online?
- What factors differentiate online bullies from offline bullies?

Almost 1 in 16 say they have been bullied whereas only half as much admit to having bullied others online

As shown by the *EU Kids Online* survey of 9-16 year old internet users in 25 countries:

- Across Europe, 6% of 9-16 year olds who use the internet report having been bullied online while only half as many (3%) confess to have done so.
- As the number of children who report having been bullied increases so does the number of children who admit having bullied others. Incidences are highest in Estonia, Sweden and Romania and lowest in Italy, Portugal, Turkey and Greece.
- Exceptions are Lithuania, where equal amounts of children report being and having bullied online (5% each) and Denmark, where six times as many children report being bullied compared to having bullied others online (12% vs. 2%).

These findings from the *EU Kids Online* survey suggest that for most European children it is easier to give an account of being bullied than to admit having bullied others. Indeed the percentage of children who refused to answer the question of whether they have bullied with “yes” or “no” (i.e., said “prefer not to say” or “don’t know”) is by one third (3%) higher than of those who refused to respond to the question whether they have been bullied (see Table 1).

Table 1 includes those who have responded “Don’t know” or “Prefer not to say” (refusals) to the questions about having or being bullied.

Therefore some percentages on bullying reported here are lower than those reported on the country level where refusals were excluded from the analyses.

Table 1: Children's accounts of whether they have been and/or have bullied online including response refusals

% Have been bullied online	% Have bullied online			All
	No	Yes	Refusal	
No	82	1	6	89
Yes	3	1	1	5
Refusal	3	1	2	6
All	88	3	9	100

QC115: At any time during the last 12 months has this [that you have been treated in a hurtful or nasty way] happened on the internet?
 QC127: In which of the following ways have you [acted in a way that might have felt hurtful or nasty to someone else] in the past 12 months? On the internet.

Base: All children who use the internet.

Almost 1 in 10 opted out to say whether he/she has bullied online while only 1 in 16 opted out to say whether he/she has been bullied by others online

Of those who say that they have bullied others online (3%), one third (1%) also say that they themselves have been bullied online and among those 5% who state that they have been bullied online, 1 in 5 admits to also having bullied others online - again pointing towards a lower confession rate when having bullied as opposed to being bullied online. Nonetheless it seems that having and being bullied online are not two distinctive phenomena but go hand in hand.

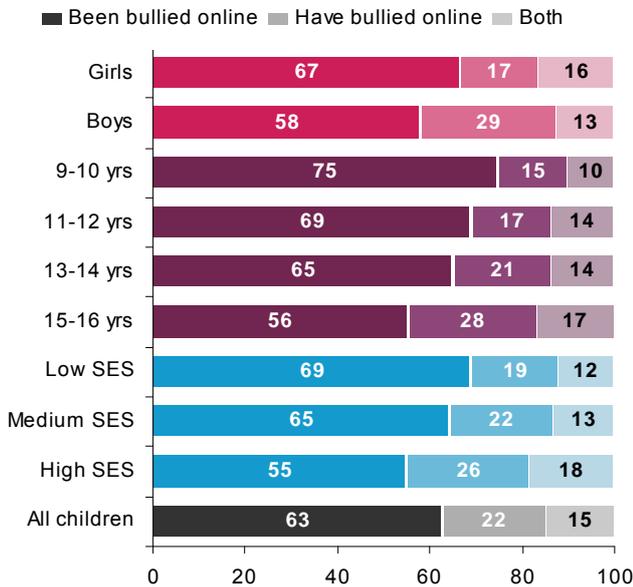
Who is involved in online bullying?

Some socio-demographic variation was found among those who have responded to at least one of the questions regarding bullying. Figure 2 shows:

- Among those involved in online bullying, girls, younger children and those from a low socio-demographic background report more often being victims of bullying and less often to bully others than boys, older children and those with a higher socio-demographic background.

Overall, these differences suggest that those socio-demographic groups who are in some way or another more vulnerable are also more likely to report being victims than perpetrators (only) of online bullying. Does this mean those that are generally more vulnerable are also more vulnerable to online bullying? And if so, then how is *psychological* vulnerability related to online bullying?

Figure 2: Percentages of children among those involved in online bullying who have been bullied, have bullied or both by demographics



Note: All socio-demographic differences were statistically significant (gender: $\chi^2_{(2)} = 26$, age: $\chi^2_{(6)} = 44.4$, and SES: $\chi^2_{(4)} = 12.5$; all $ps < .02$)

QC115: At any time during the last 12 months has this [that you have been treated in a hurtful or nasty way] happened on the internet?
 QC127: In which of the following ways have you [acted in a way that might have felt hurtful or nasty to someone else] in the past 12 months? On the internet.

Base: Of all children who use the internet: only children who either have been bullied online, have bullied online or both.

Online bullying and psychological vulnerability

Those who bully online, are bullied online or both are the minority among 9-16 year old European children who use the internet. 93% had neither of the two bullying experiences. An analysis of variance was conducted to compare the psychological vulnerability of those who have been bullied online (victims), have bullied online (bullies), have experienced both, and neither.

Three measures from research associated with offline bullying were used: psychological difficulties (Strengths and Difficulties Questionnaire - SDQ^c), sensation seeking¹ and social exclusion or ostracism². All measures were assessed by asking the child to what extent he/she agreed to various statements on a scale from 1 ("not true") to 3 ("very true"). Example statements were:

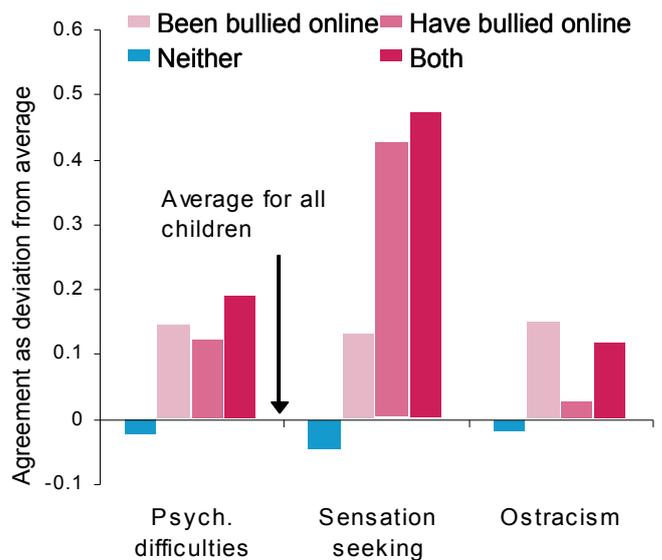
^c The psychological difficulties subscales of the Strength and Difficulties Questionnaire were summed and averaged (see <http://www.sdqinfo.org>).

- **Psychological difficulties:** "I am often unhappy, sad or tearful." (emotional problems subscale), "I am easily distracted, I find it difficult to concentrate." (hyperactivity subscale), "I am often accused of lying or cheating." (conduct problems subscale), "I am usually on my own, I generally play alone or keep to myself." (peer problems subscale)
- **Sensation seeking:** "I do dangerous things for fun."
- **Ostracism:** "Other people my age often treat me as if I wasn't there."

Figure 3 shows each group's response score on the three psychological measures as a difference from the average response score of all children who completed the survey. Statistical significance testing^d revealed:

- **Psychological difficulties:** The three bullying groups show higher psychological difficulties compared to those neither having bullied nor having been bullied online. In addition, those who are both, online bullies *and* victims of online bullying, show higher psychological difficulties than those who are bullies but not bully victims.

Figure 3: Children's psychological characteristics as a function of having been bullied online, having bullied others online, neither or both



Note: variables are mean centred (0 = average for all children).

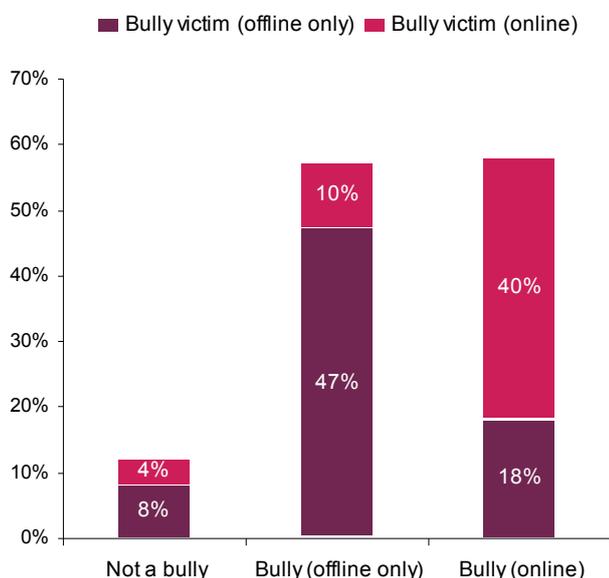
Base: All children who use the internet.

^d Post hoc comparisons were conducted via Scheffé tests. Only results significant with an α -error < 5% are discussed.

- **Sensation seeking:** The three bullying groups show higher sensation seeking compared to those neither having nor having been bullied online. Those who have bullied or are bullies and victims are higher in sensation seeking than those who are bully victims but not bullies.
- **Ostracism:** Those who have been bully victims or both (bullies and victims) show higher ostracism than those who experienced neither. Further, bully victims show higher ostracism than bullies.

Taken together these findings suggest that psychological difficulties are associated with both online bullying and victimisation, sensation seeking with online bullying and ostracism with victimisation from online bullying. Moreover, it also seems that those involved in online bullying show overall a higher psychological vulnerability than those not involved in online bullying. In line with other research from *EU Kids Online*³ these findings suggest that those who can be seen as vulnerable in general (on- and offline) should be the target of future policy initiatives.

Figure 4: The proportion of children who have been bully victims online or offline, of those who are bullies (on- or offline) or not bullies



Note: Differences were statistically significant ($\chi^2_{(4)} = 4186.6; p < .01$).

QC112: Has someone acted in this kind of hurtful or nasty way to you in the past 12 months? QC115: At any time during the last 12 months has this [that you have been treated in a hurtful or nasty way] happened on the internet? QC125: Have you acted in a way that might have felt hurtful or nasty to someone else in the past 12 months? QC127: In which of the following ways have you [acted in a way that might have felt hurtful or nasty to someone else] in the past 12 months? On the internet.

Base: All children who use the internet.

It was shown that the patterns of psychological variables with regards to online bullying are consistent with research on offline bullying⁴. But what, may one ask then, differentiates between offline and online bullies? Further analyses were conducted to reveal some of these factors.

Online and offline bullying

How and how many bullies are bullied?

How many of those who have bullied others in general have been bullied? Has either of this happened offline or online? And how does this compare to those who have never bullied others? Before children in the *EU Kids Online* survey were asked whether they have or have been bullied online, they were asked whether they had or had been bullied in general, i.e. offline and online.

Figure 4 shows how many of those that either a) are no bullies, b) bullied others exclusively offline, or c) have bullied others online have themselves been victims of bullying by others online or offline only. The group with the lowest incidence of being bully victims (12% - 8% offline and 4% online) are those that have not bullied others. Those who have bullied others offline only and those who have bullied others online have equally been bully victims (both groups ~60%).

The mode of bullying others – on- vs. offline – seems to correspond with the mode of being bullied by others. Those who have bullied others offline only have mainly been bullied offline only (47% compared to 10% online) and those who have bullied others online have mainly been bullied online (40% compared to 18% offline). These findings suggest not only that those who bully have also been bullied and vice versa but also that bullying others and being bullied mostly occurs through similar modes. Possibly bully victims seek revenge or, put differently, children try “to get back” to those who bullied others through similar means?

However, to keep things in perspective, even though it was shown that overall around 60% of bullies say that they have been bullied, this also implies that 40% *have not* been bullied. Equally 40% of bully victims admit that they have bullied others, but 60% say that they *have not* bullied others.

It is important to note that the *EU Kids Online* survey assessed children’s responses at one point in time only. Therefore we cannot know what the causal links between being bullied online and bullying online are,

that is, does the child who is first bullied online then become an online bully to seek revenge or is the child who is first an online bully then in turn bullied?

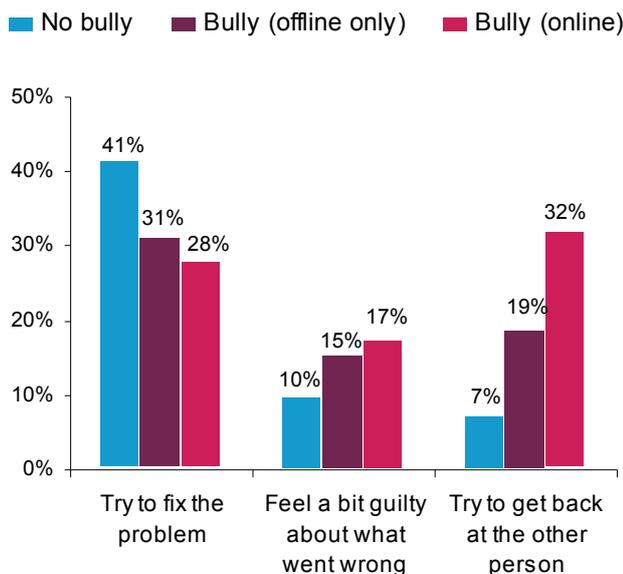
To explore these question further analyses were conducted on children's responses to online bullying.

How do children respond to being bullied online?

Figure 5 shows the responses to online bullying of those who have not bullied, bullied offline only and bullied online.

- Around 40% of those who have not bullied say they "tried to fix the problem" while this response was given by about 10% less (~30%) among both the offline and online bullies.
- Less than 10% of those who have not bullied "felt a bit guilty about what went wrong". However, this response increased by at least half (+5%) among offline and online bullies.
- While only a small amount of those who did not bully (7%) said that they would "try to get back at the other person", this response was given by 19% of the offline bullies and 32% of the online bullies.

Figure 5: Children's responses to online bullying of those who are bullies (on- or offline) or no bullies



Note: All differences were statistically significant ($\chi^2_{(2)} = 6.8$ to 55.5 ; all $ps < .05$)

QC120: Did you do any of these things afterwards [being bullied online]? Try to fix the problem. Feel a bit guilty about what went wrong. Try to get back at the other person.

Base: All children who use the internet and have been bullied online.

1 in 3 who had bullied others online said that they try to get back at the other person when being bullied online

Not only do these findings suggest that bullies more often than non-bullies try to get back at the other person and thus their motive for bullying might be revenge but also revenge might be more likely to take place on the same mode that bullying had occurred: "Trying to get back at the other person" when being bullied online is by one third higher among online bullies when compared to offline bullies.

Offline bullies and online bullies appear to have similar psychological profiles and responses to being bullied by others online. What differentiates the two seems to be mainly the mode through which they bully (offline vs. online) but what are the particular factors that distinguish online from offline bullies?

How do online bullies differ from offline bullies?

Findings from previous research⁵ show that, offline, bullies are more likely to be boys than girls. Table 2 shows that these findings are consistent with the *EU Kids Online* data. While of those who said to have exclusively bullied offline 54% were boys but 46% were girls. However, for those who said to have bullied others online the gender difference (48% boys, 52% girls) did not reach the level of statistical significance.

Table 2: Gender differences in offline and online bullying

	% Have bullied	
	Offline (only)	Online
Boys	54	48
Girls	46	52

Note: The differences between boys and girls are only statistically significant for offline bullying ($p < .05$) but not for online bullying.

Further a logistic regression was carried out to show which variables associated with internet behaviour (time, spent online, risky online activities) and attitudes (belief in own abilities, feeling more comfortable online than offline) can help to differentiate between offline and online bullies. Moreover, a measure for risky offline activities was added to assess whether the potentially risky behaviours of online bullies are restricted to the internet. In addition, the analyses looked again at gender differences between the bully types. The following measures were used:

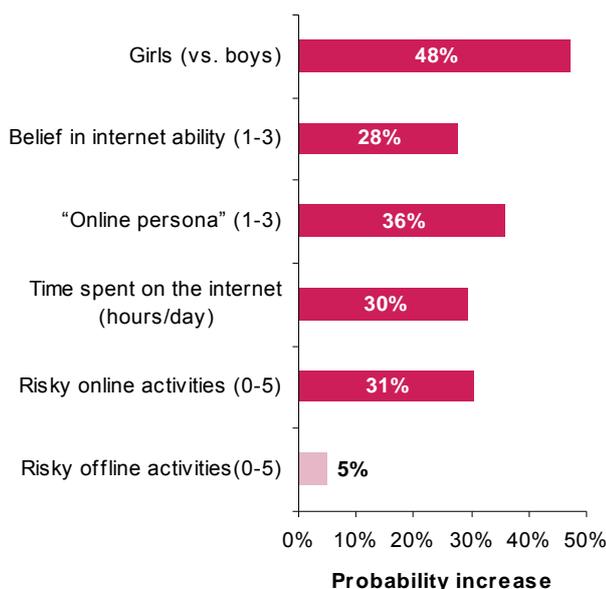
- **Belief in own internet ability:** The child was asked to what extent he/she agreed to the following statement on a scale from 1 (“not true”) to 3 (“very true”): “I know lots of things about using the internet”.
- **“Online persona”:** The child was asked to what extent he/she agreed to the following statements on a scale from 1 (“not true”) to 3 (“very true”): “I find it easier to be myself on the internet”, “I talk about different things on the internet than face to face”, “On the internet I talk about private things”. The average was taken across these three questions.
- **Time spent on the internet:** An estimate of how many hours a day the child spends online was calculated from the child’s responses to how many minutes he/she spends online each day.
- **Risky online activities:** The child was asked whether or not (yes/no) he/she had carried out the following five activities: “Looked for new friends on the internet”, “Added people to my friends list or address book that I have never met face-to-face”, “Pretended to be a different kind of person on the internet from what I really am”, “Sent personal

information to someone that I have never met face-to-face”, “Sent a photo or video of myself to someone that I have never met face-to-face”. The number of “yes” answers was added up.

- **Risky offline activities:** The child was asked whether or not (yes/no) he/she had carried out the following five activities: “Had so much alcohol that I got really drunk”^e, “Missed school lessons without my parents knowing”, “Had sexual intercourse”^f, “Been in trouble with my teachers for bad behaviour”, “Been in trouble with the police”. The number of “yes” answers was added up.

The results in Figure 6 show how the odds for a child to be an online bully compared to an offline bully increases when one of the factors is changed by one unit. Specifically, it is shown that the odds of being an online bully as opposed to an offline bully increase by 48% when the child is a girl as opposed to a boy, by 28% when the child’s belief in his or her internet abilities increase by one point (of 3), by 36% when the child’s score on the “online persona” scale increases by one, by 30% when the child spends one hour more online, by 31% when the child engages in one additional risky online activity, and by 5% when the child engages in one additional risky offline activity.

Figure 6: The increase in the odds of being an online as compared to an offline bully when each measure increases by one unit



It was shown that, offline, bullies are more likely to be boys than girls. Online *compared* to offline, however, the likelihood of girls being bullies increases more than for boys. The consequence is that boys and girls are equally likely to bully online (but not offline).

Further, children who are online bullies compared to offline bullies are more likely to use the internet, believe more in their internet ability, engage in risky online activities and have an “online persona” (i.e., feel more comfortable online than offline). However, the findings on risky *offline* behaviours shows no statistically significant difference between online bullies and offline bullies. So, online bullies are *not* more likely to engage in risky offline activities than offline bullies.

In sum, these findings suggest that online bullies can be differentiated from offline bullies on the basis of their behaviour and attitudes associated with the internet as well as their gender composition rather than on the basis of their offline behaviours. Given that having bullied and being bullied go hand in hand a similar differentiation was expected for bully victims.

Note: -2 Log likelihood = 2611.98; $\chi^2_{(6)} = 231.9$; $p < .001$; pale column is not statistically significant on a 5% level.

QC120: Did you do any of these things afterwards [being bullied online]? Try to fix the problem. Feel a bit guilty about what went wrong. Try to get back at the other person.

Base: All children who use the internet and have bullied others.

^e This question was only asked of 11+ year olds.

^f This question was only asked of 11+ year olds.

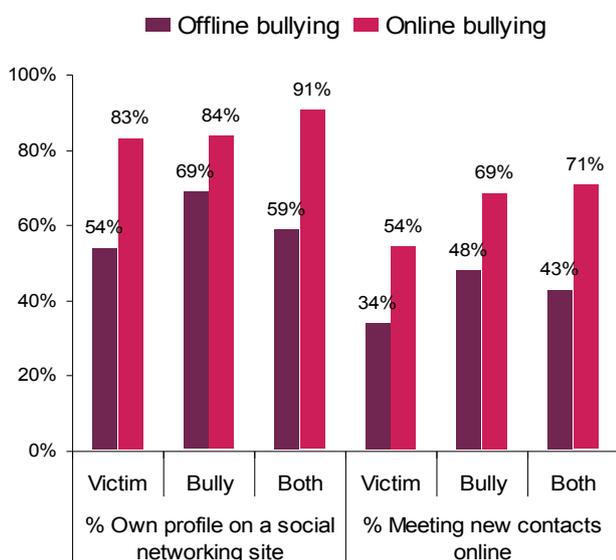
How does online compare to offline bullying in terms of social networking and new online contacts?

Further analyses were performed to determine whether those involved in online bullying (victims, bullies, or both) differ from those involved in offline bullying (victims, bullies, or both). In particular, two questions regarding specific internet activities were investigated:

- “Do you have your own profile on a social networking site that you currently use?”
- “Have you ever had contact on the internet with someone you have not met face to face before?”

Figure 7 shows that for all bullying groups (victims, bullies, or both) the percentage of those owning a profile on a social networking site and of those meeting new contacts online is higher for online bullying than for offline bullying. For both online activities the differences are highest for those who have been involved in both, bullied others *and* being bullied by others themselves (~30%). Once again, this might

Figure 7: Comparing online with offline bullying on the use of social networking sites and new online contacts among those who have been bully victims, bullies or both



Note: all differences between offline and online bullying are outside the range of the 95% confidence intervals (+/- 2-6%), i.e. statistically significant.

QC147: Have you ever had contact on the internet with someone you have not met face to face before? QC313: Do you have your own profile on a social networking site that you currently use, or not?

Base: Of all children who use the internet: offline bullying: only children who either have been bullied offline, have bullied offline or both; online bullying: only children who either have been bullied online, have bullied online or both.

suggest that online bullying is an exchange between the same individuals. This could happen either on social networking sites, which allows exchange within one’s social online network or as an exchange with those solely known online and never met face-to-face.

Implications

A survey of around 25,000 European children that use the internet aged 9-16 years old revealed that:

- Online bullies and those being bullied online are those children who are mostly also vulnerable offline. This supports previous findings⁴ that those children who already face problems offline are not only in need of support in their offline but also their online lives. This includes children who have psychological difficulties, are socially excluded (ostracised), engage in unhealthy sensation seeking behaviours or are in some way or another members of a vulnerable group.
- Children who are bullied and/or bully others online have similar demographic and psychological profiles to those who are bullied and/or bully offline. It is suggested that those children bullied or bullying online are not very different from those bullied or bullying offline except in that they make use of the affordances of the internet (e.g. the chance to meet new people online or to network with peers).
- Those children who are causing harmful experiences online to others in form of bullying are often the very same ones being bullied online by others, some of them known and some unknown to them offline.

It is possible that being bullied by others online can be the response to having bullied others online and vice versa, bullying others online can be the response to being bullied by others online. Although we cannot determine which is the cause and which the effect, providing more support for children who are victims of bullying might simultaneously decrease the occurrence of online bullying. Similarly, working to prevent children from engaging in online bullying behaviours might reduce the chance that they themselves will be bullied online by others.

On a positive note and to keep these findings in perspective it was shown that 93% of European children have neither been bullied nor bullied others online.

Further reports

For more *EU Kids Online* reports, see www.eukidsonline.net

- Livingstone, S., Haddon, L., Görzig, A., and Ólafsson, K. (2011) *Risks and safety on the internet: The perspective of European children. Full findings.*
- Livingstone, S., Ólafsson, K., and Staksrud, E. (2011) *Social Networking, Age and Privacy.*
- Sonck, N., Livingstone, S., Kuiper, E., and de Haan, J. (2011) *Digital literacy and safety skills.*
- Livingstone, S., & Ólafsson, K. (2011) *Risky communication online.*
- O'Neill, B., Grehan, S., & Ólafsson, K. (2011) *Risks and safety on the internet: The Ireland report.*
- Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (2011) *Risks and safety on the internet: The UK report.*
- O'Neill, B., and McLaughlin, S. (2010). *Recommendations on safety initiatives.*

For reports from the previous *EU Kids Online* project, see:

- Livingstone, S. and Haddon, L. (2009) *EU Kids Online: Final report.*
- De Haan, J. and Livingstone, S. (2009) *Policy and research recommendations.*
- Hasebrink, U., Livingstone, S., Haddon, L. and Ólafsson, K. (eds) (2009) *Comparing children's online opportunities and risks across Europe: Cross-national comparisons for EU Kids Online* (2nd edn).
- Lobe, B., Livingstone, S. and Haddon, L., with others (2007) *Researching children's experiences online across countries: Issues and problems in methodology.*
- Lobe, B., Livingstone, S., Ólafsson, K. and Simões, J.A. (eds) (2008) *Best practice research guide: How to research children and online technologies in comparative perspective.*
- Staksrud, E., Livingstone, S., Haddon, L. and Ólafsson, K. (2009) *What do we know about children's use of online technologies? A report on data availability and research gaps in Europe* (2nd edn).
- Stald, G. and Haddon, L. (eds) (2008) *Cross-cultural contexts of research: Factors influencing the study of children and the internet in Europe* (national reports also available at www.eukidsonline.net).

Selected additional publications:

- Livingstone, S. and Haddon, L. (eds) (2009) *Kids online: Opportunities and risks for children.* Bristol: The Policy Press.
- Tsaliki, L. and Haddon, L. (eds) (2010) *EU Kids Online*, special issue. *International Journal of Media and Cultural Politics*, 6(1).
- Livingstone, S. and Tsatsou, P. (2009) Guest editors for special issue, 'European children go online: issues, findings and policy matters', *Journal of Children and Media*, 3(4).

Notes

¹ Stephenson, M. T., Hoyle, R. H., Palmgreen, P., & Slater, M. D. (2003). Brief measures of sensation seeking for screening and large-scale surveys. *Drug and Alcohol Dependence*, 72(3), 279-286.

² Ferris, D., Brown, D. J., Berry, J. W., & Lian, H. (2008). The development and validation of the Workplace Ostracism Scale. *Journal of Applied Psychology*, 93(6), 1348-1366.

³ Livingstone, S. & Görzig, A. (under review). When adolescents receive sexual messages on the internet: Explaining experiences of risk and harm. Submitted to *Communication Review*.

⁴ Smith, P. K., Talamelli, L., Cowie, H., Naylor, P., & Chauhan, P. (2004). Profiles of non-victims, escaped victims, continuing victims and new victims of school bullying. *British Journal of Educational Psychology*, 74(4), 565-581. Wilson, L. C., & Scarpa, A. (2011). The link between sensation seeking and aggression: A meta-analytic review. *Aggressive Behavior*, 37(1), 81-90. Williams, K. (Ed.), Forgas, J. (Ed.), & von Hippel, W. (Ed.). (2005). *The social outcast: Ostracism, social exclusion, rejection, and bullying.* New York, NY US: Psychology Press.

⁵ Sourander, A., Helstela, L., Helenius, H., & Piha, J. (2000). Persistence of bullying from childhood to adolescence: A longitudinal 8-year follow-up study. *Child Abuse and Neglect*, 24, 873-881.

EU Kids Online II is funded by the EC Safer Internet Programme (contract SIP-KEP-321803) from 2009-11 to enhance knowledge of children's and parents' experiences and practices regarding risky and safer use of the internet and new online technologies.

To inform the promotion among stakeholders of a safer online environment for children, EU Kids Online conducted a face-to-face, in home survey of 25,000 9-16 year old internet users and their parents in 25 countries, using a stratified random sample and self-completion methods for sensitive questions.

For more findings, see Livingstone, S., Haddon, L., Görzig, A., and Ólafsson, K. (2011). *Risks and safety on the internet: The perspective of European children. Full findings.* LSE, London: EU Kids Online. Other reports and technical survey details are at www.eukidsonline.net.