Gender Differences in Teens' Experiences of Online Harms

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Negative Digital Experiences

- Globally, 15%-35% experience some form of cyberbullying or online harassment
- In the UK, 1 in 3 young people (approximately 33%) had experienced bullying on online platforms (last year)
- In the US, as high as 49.5% reported experiencing cyberbullying
- In Australia, 4 in 10 had negative experiences while gaming online

Gender & Negative Digital Experiences

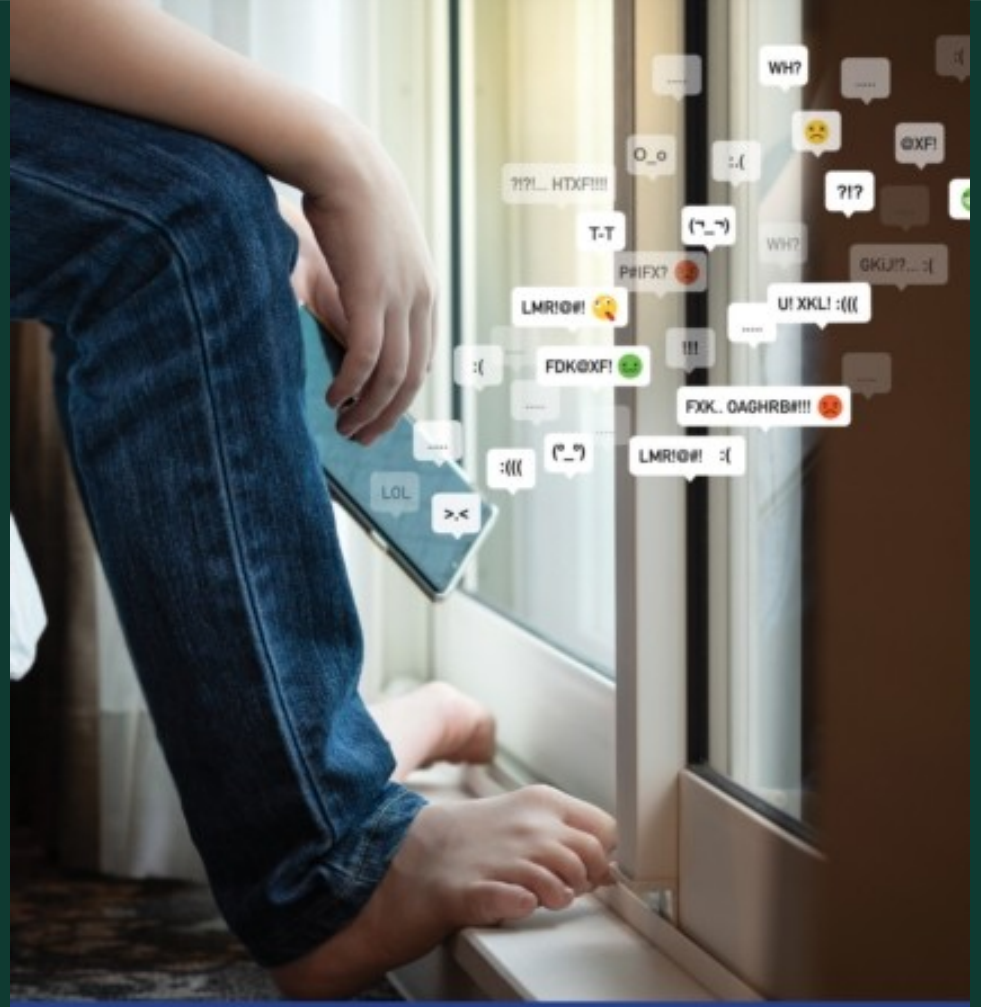
- A 2025 study (Germany) revealed that girls encountered negative experiences more than boys (Theme of the Conference)
- In Australia, females are more vulnerable to harmful cyber-safety incidents than males

Negative Digital Experiences

- Numerous negative online experiences, ranging from misuse of data, exclusion, hurtful comments, disturbing content, and cyberbullying acts, like name-calling, spreading rumours, threatening, or the sharing of intimate images without consent to crimes like online grooming, stalking, fraud, and sextortion
- Harmful experiences are associated with grave performance, emotional, and psychosocial effects for victims, including lower self-esteem, higher rates of depression and anxiety, increased school absences, and an inability to concentrate
- In some cases, the effects of negative experiences have been associated with self-harm and suicide ideation

Study Aim

- Knowledge of common online threats
  - Three additional specific questions for each negative experience asked participants
  - if they were aware of someone they knew who felt victim to such a negative experience,
  - if they knew how to protect themselves from such a negative online experience, and
  - if they knew what to do if they felt victim to such a negative online experience.



TEENS AND ONLINE SAFETY

How to Protect Yourself in Cyberspace

Julie Maclean and Yeslam Al-Saggaf

ROUTLEDGE

Digital literacy

- Reviewer's suggestion –My thanks to the Reviewer
- Digital literacy is an important protective factor in reduce vulnerability to online harm.
- Digital literacy extends beyond technical skills knowledge, critical thinking, and decision-making abilities required to evaluate online content, manage privacy settings, recognise risks, and respond appropriately to harmful situations
- Participants with higher levels of digital literacy are more likely to engage in protective online behaviours, including effective privacy management, cautious information-sharing practices, critical evaluation of online information, and help-seeking when exposed to online harm.

Digital literacy

- Digital literacy is also closely linked to digital inclusion. Digital inclusion extends beyond having access to devices and connectivity to encompass the ability to participate meaningfully, safely, and confidently in digital environments.
- For adolescents, meaningful inclusion therefore depends not only on access to digital technologies but also on their capacity to understand online risks, evaluate digital information, manage privacy, seek support, and apply critical thinking when confronted with potentially harmful situations
- Digital literacy is consequently an important enabler of inclusive digital participation. Adolescents who lack the knowledge and skills to recognise and respond to harms such as doxing, sextortion, online grooming, or misinformation may be less able to fully benefit from online learning, social connection, engagement, and support services.

Gaps in Research

Female adolescents experience higher rates of certain online harms, including cyberbullying, unwanted sexual contact, image-based abuse, online harassment, and other forms of technology-facilitated abuse.

Females are also more likely to encounter unwanted contact from strangers and sexually inappropriate online interactions, whereas males tend to report greater exposure to online aggression, risky online behaviours, and gaming-related harms.

Females have been found to report lower confidence in their digital and cybersecurity knowledge, while males frequently report greater confidence in their technical abilities

Gaps in Research

Substantial research has investigated cyberbullying and selected online harms,

Little research has examined adolescents' understanding of a broad spectrum of online threats, including

Digital footprints, doxing, cyberstalking, image-based abuse, sextortion, catfishing, grooming, hate speech, misinformation, and gaming-related harms within a single study.

Limited research has examined the interrelationships between adolescents' knowledge of online harms, protective strategies, and post-victimisation responses, and how these may vary by gender.

Methodology

- An online survey administered using Qualtrics.
- Participants for the online survey were recruited from two high schools in regional NSW, Australia
- A document containing the QR Code to the survey was forwarded to students via their schools so they could complete the survey from their smartphones
- The study was conducted in accordance with the ethics approval (Protocol number H25247) from the Charles Sturt University Human Research Ethics Committee (HREC)
- The online survey was open from 19 October 2025 to 23 March 2026.
- Upon completion, participating students were handed a $20 gift card as a token of appreciation.

The survey questionnaire

- Knowledge of the 12 negative experiences: Digital Footprint, Trolling, Cyberbullying, Doxing, Cyberstalking, Image-Based Abuse, Sextortion, Catfishing, Online Grooming, Hate Speech, Fake News, and Online Gaming.
- Three additional questions for each online negative experience
- Presented participants with a definition of the negative online experiences from a credible source like eSafety.gov.au

The survey questionnaire

- Three additional specific questions for each negative experience asked participants
- if they were aware of someone they knew who felt victim to such a negative experience,
- if they knew how to protect themselves from such a negative online experience, and
- if they knew what to do if they felt victim to such a negative online experience.

Participants

- A total of 119 participants completed the survey questionnaire.
- Participants were aged between 14 and 17, with a mean of 15.6147 and a standard deviation of 0.95169.
- 37% of the participants (N=45) were males, compared to 49.6% females (N=59).
- Four participants indicated they were non-binary, and another participant used a different term for gender, while 10 participants did not answer the gender question.

Variables

- The knowledge of the negative online experiences variable was dichotomous and was measured using a Yes/No response, with No coded as 0, and Yes coded as 1.
- The three additional specific questions for each negative experience i.e. the variables, awareness of someone participants knew who felt victim to such a negative experience, the knowledge of how to protect themselves from a negative online experience, and if they knew what to do if they felt victim to such a negative online experience were all ordinal and measured on a Likert scale with responses ranging from Strongly Disagree, coded as 1, to Strongly Agree, coded as 5.

Findings: Gender vs knowledge of what the online negative experiences means

Knowledge of what it means	N	χ^2	p	Degrees of freedom	Phi coefficient
Digital Footprint	104	4.631	0.031	1	-0.211
Trolling	101	4.729	0.030	1	-0.216
Doxing	100	19.087	<0.001	1	-0.437
Sextortion	99	8.313	0.004	1	-0.290
Hate Speech	99	7.342	0.007	1	-0.272

Findings: Gender vs knowledge of what the online negative experiences mean

- Males were more likely to answer Yes to knowledge of Digital Footprint (93.3%) compared to females (78%)
- Males were more likely to answer Yes to knowledge of Trolling (100%) compared to females (89.65%)
- Males were more likely to answer Yes to knowledge of Doxing (79%) compared to females (35.08%)
- Males were more likely to answer Yes to knowledge of Sextortion (51.16%) compared to females (23.21%)
- Males were more likely to answer Yes to knowledge of Hate Speech (90.69%) compared to females (67.85.21%)

Findings: Knowledge of how to protect themselves from negative online experiences

- To test whether there is a difference, after presenting them with a definition of the negative online experience, a Mann-Whitney U test, which corresponds to the independent t-test, was employed
- The Mann-Whitney U test was statistically significant for only one negative online experience out of 12. The Mann-Whitney U test result, U = 891.500, Z = -2.594, p = 0.009, revealed that participants in the male group (Mean Rank = 59.27) reported significantly higher agreement with the knowledge of how to protect themselves from trolling than those in the female group (Mean Rank = 44.87)
- This result suggests that more female teens lack knowledge of how to protect themselves from trolling than males.

Findings: Knowing what a negative online experience means vs knowing how to protect themselves from it

Knowledge of how to protect	N	Mean	Standard Deviation
Digital Footprint	106	3.35	1.024
Trolling	106	3.93	0.979
Cyberbullying	105	4.13	0.821
Doxing	105	3.31	1.227
Cyberstalking	105	3.62	1.032
Image-Based Abuse	104	3.56	1.131
Catfishing	104	3.91	0.849
Online Grooming	104	3.78	0.955
Hate Speech	104	3.76	1.038

Knowledge of how to protect	U	Z	P	Mean Rank (I know what it means vs I don't know what it means)
Digital Footprint	466.500	-2.342	0.019	56.32 vs 37.66
Trolling	145	-2.246	0.025	55.05 vs 27.67
Cyberbullying	0.500	-1.858	0.019	53.50 vs 1.50
Doxing	759.500	-3.999	<0.001	63.41 vs 40.16
Cyberstalking	219.500	-2.549	0.011	55.21 vs 29.39
Image-Based Abuse	888.000	-2.477	0.013	57.75 vs 43.00
Catfishing	48.000	-2.145	0.042	53.52 vs 18.00
Online Grooming	465.000	-4.230	<0.001	59.11 vs 31.60
Hate Speech	590.5	-2.794	0.005	56.71 vs 37.67

Findings: Gender vs knowing what a negative online experience means vs knowing how to protect themselves from it

- Teens who answered Yes to the statement “I know what this negative experience means” reported significantly higher agreement with the statement concerning their “knowledge of how to protect themselves” than those who answered No.
- It appears that teens who knew what the negative online experience meant were more likely to protect themselves from it than those who did not
- Understanding what the negative experience means is important for knowing how to protect oneself from it.

Findings: Knowing what to do if they fell victim to a negative online experience vs knowing how to protect themselves from it

Knowledge of what to do if they fall victim vs knowledge of how to protect themselves	Z	N	P	Negative ranks vs positive ranks
Trolling	-2.572	106	0.010	14 vs 30
Cyberbullying	-2.636	105	0.008	10 vs 23
Sextortion	-3.671	104	<0.001	6 vs 25
Online grooming	-2.196	104	0.028	9 vs 17

- Participants' responses were higher on what to do if they fell victim compared to their responses regarding how to protect themselves from falling victim.
- There is a gap in teens' knowledge with respect to how to protect themselves from these negative experiences.

Findings: Knowledge of someone who has experienced a negative online experience in the past

- The Mann-Whitney U test was statistically significant for only one negative online experience out of 12. The Mann-Whitney U test result, U = 871.500, Z = -2.88, p = 0.022, revealed that participants in the male group (Mean Rank = 56.75) reported significantly higher agreement with the knowledge of who fell victim to addiction to online gaming than those in the female group (Mean Rank = 44.06).
- This suggests that more male teens know of someone who fell victim to addiction to online gaming than females.

Findings: Knowledge of someone who has experienced a negative online experience in the past vs knowledge of what the negative online experience means

- The Mann-Whitney U test was statistically significant for two negative online experiences out of 12. The Mann-Whitney U test result, U = 902, Z = -3.042, p = 0.002, revealed that participants who answered Yes to the question relating to knowledge about Doxing (Mean Rank = 60.95) reported significantly higher agreement with the knowledge of who fell victim to doxing than those who answered No (Mean Rank = 43.19)
- The Mann-Whitney U test result, U = 68, Z = -3.663, p < 0.001, revealed that participants who answered Yes to the question relating to knowledge about Fake News (Mean Rank = 54.79) reported significantly higher agreement with the knowledge of who fell victim to Fake News than those who answered No (Mean Rank = 13.71).
- Participants who knew what the negative online experience meant also knew of someone who fell victim to it.

Discussion

- Adolescents demonstrated high awareness of well-established harms such as cyberbullying and online grooming, substantial gaps remain in understanding emerging or less frequently discussed risks, including sextortion, doxing, digital footprints, trolling, hate speech, and image-based abuse.
- Significant association between understanding a specific online harm and reported knowledge of how to protect oneself from it. This relationship was observed for nine of the twelve harms
- For trolling, cyberbullying, sextortion, and grooming, participants reported greater knowledge of how to respond after victimization than how to prevent it.

Discussion

- Knowledge gaps were especially pronounced for digital footprints and doxing.
- Male participants reported higher awareness of digital footprints, trolling, doxing, sextortion, and hate speech, as well as greater knowledge of protective strategies for trolling

Conclusion

- Adolescents may be relatively well-informed about well-established online harms, their understanding of emerging risks and preventive strategies remains limited.
- Awareness and perceived protective capability suggest that improving conceptual understanding of online harms may also enhance adolescents' confidence in managing risk and adopting safer behaviours.
- Adolescents who understand online harms and know how to protect themselves are better positioned to participate confidently in online learning, communication, gaming, social interaction, and civic life
- Gaps in digital literacy can result in digital exclusion and restrict meaningful participation by leaving young people uncertain about how to recognise risks, manage privacy, evaluate information, or seek support when harm occurs

Implications for Cyber Safety Education

- Cyber safety education should expand beyond traditional focuses such as cyberbullying to include emerging harms, including sextortion, doxing, image-based abuse, hate speech, and misinformation.
- Greater emphasis should be placed on prevention-oriented education, not only response strategies, to equip adolescents with practical skills for avoiding victimisation.
- Targeted interventions may be required to address gender differences in awareness and perceived capability, particularly where vulnerability and knowledge gaps intersect.

Thank you



Questions?