



Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

Appendix: Survey and Data Analysis

Understanding Adult Experiences of Online Hate in Ireland – an Exploratory Survey

DCU Anti-Bullying Centre, Dublin City University

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The Survey

Information Sheet

Thank you for taking the time to consider participation in this survey about your social media use and your experiences online. We have provided some information on the project here.

What is this study about?

This study is about negative online experiences for people in Ireland. The project is funded by the Department of Justice as part of the Research Observatory on Cyberbullying, Cyberhate and Online Harassment, based at the DCU Anti-Bullying Centre. The aim of the study is to gather information about the kinds of experiences people have online. Ultimately this research will inform policy and aims to make online experiences safe and positive for everyone.

Who are the people doing this research?

This research is being conducted by Dr Maja Brandt Andreassen and Dr Angela Mazzone, who work as postdoctoral researchers at the DCU Anti-Bullying Centre.

What do I have to do?

If you are happy to take part in this study, simply tick all statements in the consent form. The survey should take about 15 minutes to complete and you are free to stop at any time. Your participation in this study is voluntary and it should not include any risk in either your private or professional life. Please, note that there are no right or wrong answers. Therefore, it is very important that your answers reflect your own personal experiences. Some of the questions will have the opportunity for open answers. Please refrain from disclosing personally identifying information when you give those answers.

How will my data be stored?

Your voluntary participation is completely anonymous and the researcher will protect all your information. This means that the researcher will not know your name or anything about you. Your data and answers will be securely stored and will be analysed for scientific purposes only.

Your data will be anonymous and not accessed by anyone but the researchers and the research agency collecting the data; this is subject to legal limitations. Your data will be stored anonymously for 5 years after completion of the research. The researchers would like to use your anonymous data during publication and presentations of this research. Your data will remain anonymous. If you would not like your data used, please

contact the researchers. Your participation in this research is entirely voluntary, but once the survey has been submitted, it is not possible to withdraw from the study.

Please note that if you withdraw from the survey, the data collected up to your withdrawal will be used as detailed in this plain language statement. This is because this survey does not collect any identifiable information that could be linked to your own answers.

General Data Protection Regulation (GDPR)

All data is anonymous and protected in accordance with the General Data Protection Regulation (GDPR) – 2016/679. More specifically, all information has been submitted in such a manner that you are not identifiable, in accordance with the GDPR – 2016/679, Art. 26. Your data will be stored anonymously for 5 years after completion of the research under the Data Protection Act, 1998 and will be analysed for scientific purposes only. The collected anonymous data might be transferred to other institutions for the purpose of collaborative teaching partnerships and collaborative research projects. However, in accordance with the DCU Privacy Policy, all data will be rendered anonymous and will be used for scientific purposes only. The researchers would like to use your anonymous data during publication and presentations of this research. If you do not agree with the above, please, do not sign the form below.


Anonymity of information can only be protected within the limitations of the law - i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions.

Under Data Protection Law you have:

- a) the right to receive detailed information on the processing of your personal data;
- b) the right of objection (in circumstances where Processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the Data Controller)
- c) the right to object to automated decision making, including profiling. Any data subject wishing to exercise their Data Subject Rights should contact the DCU Data Protection Officer (“DCU DPO”): Martin Ward at data.protection@dcu.ie. Mr. Martin Ward, Tel. 7005118/7008257.

You are very welcome to contact me with any question you might have at maja.brandtandreasen@dcu.ie.

Thank you for taking the time to consider taking part in the survey.



Kind regards,
Dr Maja Brandt Andreasen

If participants have concerns about this study and wish to contact an independent person, please contact:

The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000, e-mail rec@dcu.ie

Consent form

Negative online experiences in Ireland

This study investigates the variety of different negative online experiences among the adult population in Ireland.

The researchers involved in this project are Dr Maja Brandt Andreassen and Dr Angela Mazzone, DCU Anti-Bullying Centre.

This consent form relates to your participation in the study and the survey you are agreeing to participate in.

Please complete the following (by clicking Yes/No for each question)

I have read the Information Sheet or had it read to me

- Yes
- No

I understand the information provided

- Yes
- No

I have had an opportunity to ask questions and discuss the study

- Yes
- No

I understand the information provided in relation to data protection

- Yes
- No

I understand that my data will be stored for 5 years and that my anonymous data can be shared in academic publications and presentations.

- Yes
- No

I have received satisfactory answers to all my questions

- Yes
- No

I understand I may withdraw from the Research Study at any point

- Yes
- No

I have read and understand the arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

- Yes

- 
- No

I consent to participate in this research study

- Yes
- No

Section A: Demographic Questions

Question 1

What is your age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
- Prefer not to say

Question 2

What is your gender?

Man

Non-binary

Woman

Other - please write your gender here

Prefer not to say

Question 3:

Do you identify as:

Asexual

Bisexual

Gay/lesbian

Heterosexual

Other - please write your sexual orientation here

Prefer not to say

Question 4

What is your ethnic group/background?

Asian or Asian Irish

Chinese

Indian/Pakistani/Bangladeshi

Any other Asian background

Black or Black Irish

African

Any other Black background

Other including mixed group/background

Arabic

Mixed Background

Other

White

Irish

Irish Traveller
Roma
Any other White background
Prefer not to say

Question 5

What is your religion, if any?

Church of Ireland
Islam
No religion
Orthodox Christian
Presbyterian
Roman Catholic
Other - please write your religion here
Prefer not to say

Question 6

Do you consider yourself to have a disability?

Yes
No
Do not know
Prefer not to say


Question 7

Do you use the Internet?

No, never
Yes, - less than once a month
Yes, once a month
Yes, once a week
Yes, several times a week
Yes - daily
If “No” - go straight to the end of the survey

Question 8

Do you use the following online platforms or services (choose all that apply):
Dating site/app (OKCupid, Tinder, etc.)
Email
Facebook
Instagram
Snapchat
Twitter
Other social media (please specify)
Game/gaming platform



Instant messaging apps (Messenger, WhatsApp, etc)
Online/discussion board/forum (Reddit etc.)
SMS/MMS
Torrent site
Video streaming sites (YouTube etc.)
Other (please specify)

Section B: Negative Online Experiences

Question 1

Have any of the following things ever happened to you in your adult life?

	Never	Once	A few times	More than a few times	More than I can count
Repeated unwanted messages (including phone calls and texts) or online contact					
Someone electronically tracking your location or monitoring your movements using technology without your consent					
Your personal information used in a way you did not like (e.g. identity shared online)					
Someone pretending to be you online					
Received threats online or electronically of real-life harm or abuse					

Question 2

Thinking of the questions on the previous page, who did this/these things to you?

Acquaintance
Carer
Ex-partner
Family member
Friend you know only online
Friend you know personally/in real life
Partner
Stranger
Work colleague or ex-work colleague
Someone else (please specify)
Don't know who did it
Prefer not to say

Question 3

Have any of the following things ever happened to you in your adult life?

	Never	Once	A few times	More than a few times	More than I can count
Threats to share private photos of you online or electronically					
Private photos/videos (nude, semi-nude, sexual) of you shared online or electronically without your consent					
Had a private photo or video of you (nude, semi-nude, sexual) taken without consent (e.g. via a webcam)					
Receiving unwanted inappropriate content online e.g. porn or violent content					

Question 4

Thinking of the questions on the previous page, who did this/these things to you?

Acquaintance
Carer
Ex-partner
Family member
Friend you know only online
Friend you know personally/in real life
Partner
Stranger
Work colleague or ex-work colleague
Someone else (please specify)
Don't know who did it
Prefer not to say

Question 5

Have any of the following things ever happened to you in your adult life?

	Never	Once	A few times	More than a few times	More than I can count
Lies or rumours spread about you online					
Being called offensive names online					
Things said online to provoke a response in you, start an argument					
Things said to offend you because of your race, ethnicity, gender, nationality, sexual orientation, religion, age disability, etc.					
Something else (specify)					

Question 6

Thinking of the questions on the previous page, who did this/these things to you?

Acquaintance
Carer
Ex-partner
Family member
Friend you know only online
Friend you know personally/in real life
Partner
Stranger
Work colleague or ex-work colleague
Someone else (please specify)
Don't know who did it
Prefer not to say

Section C: Experienced

Only if the respondents answer “once”, “a few times”, “more than a few times”, or “more than I can count” to at least 2 of the items in Question B1, B3 or B5.

Question 1

What online platform did this/these things happen on?

Multiple responses

Dating site/app (OKCupid, Tinder, etc.)
Email
Facebook
Instagram
Snapchat
Twitter
Other social media (please specify)
Game/gaming platform
Instant messaging apps (Messenger, WhatsApp, etc)
Online/discussion board/forum (Reddit etc.)
SMS/MMS
Torrent site
Video sharing sites (YouTube etc.)
Other (please specify)

Question 2

Did you do anything about this/these things?

Single response

Yes

No

Question 3

Only if Q2=Yes

Multiple responses

	Never	Once	A few times	More than a few times	More than I can count
Spoke to family/friends					
Spoke to someone else (please specify)					
Reported it to website or social media company					
Contacted the Garda					
Reported it to Hotline.ie					
Reported it to another organisation (please specify)					
Spent less time online					
Closed my social media account(s)					
Blocked the person/account who did it					
Changed privacy settings					
Searched online for how to deal with the issue					
Did the same thing back					
Confronted the person(s) who did this in person					
Confronted the person(s) who did this online					
Other (please specify)					

Question 4

Only if Q2=No

Multiple responses

Why didn't you do anything?

I didn't know what to do
It was not serious enough
I didn't think anything would change
I was too embarrassed/ashamed

I just ignored it
Someone else dealt with it for me
Other (please specify)

Question 5

What impact did this/these things have on you?

Multiple responses

	Never	Rarely	Often	Always
Relationship problems with family or friends				
Problems with romantic relationships				
Reputational damage				
Problems at work				
Problems at school				
Financial loss				
Something else (please specify)				
No negative impact				

Question 6

Multiple responses

Why do you think this person/these people did this/these things to you?

Fun/amusement
Financial gain
To embarrass/shame me
Sexual gratification
To brag to their friends
To control me
To harass me
To punish or get back at me

To gain a competitive advantage in an online game Only show if option 6 selected in QC.1
Another reason (please specify)
No reason
Don't know

Question 7

Has the situation(s) been resolved to your satisfaction?

Single response

Yes

No

Don't know

Section D: Online Hate

Question 1

How many times, in your adult life, have you received a digital communication that offended, discriminated, denigrated, abused, and/or disparaged you because of your personal identity/beliefs (e.g. race, ethnicity, gender, nationality, sexual orientation, religion, age, disability, etc.)?

[Single response](#)

Never ([go to D.11](#))

Once

A few times (2-4)

Many times (5 or more)

I don't know ([go to D.11](#))

Question 2

The digital communication(s) I received targeted me because of my (choose all that apply)

[Multiple response](#)

Age
Appearance
Disability
Ethnicity
Gender
Nationality
Political views
Race
Religion
Sexual orientation
Other (please specify)
I don't know

Question 3

Thinking about when you experienced this.
Who directed these comments at you?

Multiple responses

Acquaintance
Carer
Ex-partner
Family member
Friend you know only online
Friend you know personally/in real life
Partner
Someone else (please specify)
Stranger
Work colleague or ex-work colleague
Don't know who did it
Prefer not to say

Question 4

What online platform or services did this/these things happen on?

Multiple responses

Dating site/app (OKCupid, Tinder, etc.)
Email
Facebook
Instagram
Snapchat
Twitter
Other social media (specify)
Game/gaming platform

Instant messaging apps (Messenger, WhatsApp, etc)
Online discussion board/forum (Reddit etc.)
SMS/MMS
Torrent site
Video sharing sites (YouTube etc.)
Other (please specify)

Question 5

Did you do anything about this/these things?

Single response

Yes

No

Question 6

Only if Q5=Yes

Multiple responses

What did you do?

Spoke to someone

- Spoke to family/friends
- Spoke to someone else (please specify)

Reported it

- Reported it to website or social media company
- Contacted the Garda
- Reported it to Hotline.ie
- Reported it to another organisation (please specify)

Took protective measures

- Spent less time online
- Closed my social media account(s)
- Blocked the person/account who did it
- Changed username/password/login details
- Changed privacy settings
- Ignored it/didn't engage

Other actions

- Searched online for how to deal with the issue
- Did the same thing back
- Confronted the person(s) who did this in person
- Confronted the person(s) who did this online
- Other (please specify)

Question 7

Only if Q5=No

Multiple responses

Why didn't you do anything?

I didn't know what to do
It was not serious enough
I didn't think anything would change
I was too embarrassed/ashamed
Someone else dealt with it for me
Other (please specify)

Question 8

What impact did these comments have on you?

Multiple responses

	Never	Rarely	Often	Always
Relationship problems with family or friends				
Problems with romantic relationships				
Reputational damage				
Problems at work				
Problems at school				
Financial loss				
Something else (please specify)				
No negative impact				

Question 9

Multiple responses

Why do you think this person/these people did this?

Fun/amusement
Financial gain

To embarrass/shame me
Sexual gratification
To brag to their friends
To control me
To harass me
To punish or get back at me
To gain a competitive advantage in an online game Only show if option 6 selected in QD.4
Another reason (please specify)
No reason
Don't know

Question 10

Has the situation(s) been resolved to your satisfaction?

[Single response](#)

Yes

No

Don't know

Question 11

Other than anything targeting you, how many times, if ever, have you seen or been exposed to a digital communication that **targeted someone else or a group** because of their race, ethnicity, gender, nationality, sexual orientation, religion, age, disability, etc?

Never ([go to D.16](#))

Once

A few times (2-4)

Many times (5 or more)

I don't know ([go to D.16](#))

Question 12

The digital communication(s) I have seen or been exposed to targeted others because of their (choose all the apply):

Race
Ethnicity
Gender
Nationality
Sexual orientation
Religion
Age
Disability
Political views
Appearance
Other (please specify)
I don't know

Question 13

Did you personally do anything about what you saw?

[Single response](#)

Yes

No

Question 14

[Only if Q13=Yes](#)

[Multiple responses](#)

What did you do?

Spoke to someone

- Spoke to family/friends
- Spoke to someone else (please specify)

Reported it

- Reported it to website or social media company
- Contacted the Garda
- Reported it to Hotline.ie
- Reported it to another organisation (please specify)

Took protective measures

- Spent less time online
- Closed my social media account(s)
- Blocked the person/account who did it
- Changed privacy settings
- Ignored it/didn't engage

Other actions

- Searched online for how to deal with the issue
- Did the same thing back
- Confronted the person(s) who did this in person
- Confronted the person(s) who did this online
- Other (please specify)

Question 15

Only if Q13=No

Multiple responses

Why didn't you do anything?

I didn't know what to do
It was not serious enough
I didn't think anything would change
I was too embarrassed/ashamed
It wasn't my place to do anything
I was asked not to get involved
They handled it themselves
Someone else did something about it
Other (please specify)

Question 16

On a scale of 1-5 where 1=strongly disagree and 5=strongly agree, to what extent do you agree or disagree with the following statements?

Single response

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I believe social media platforms should do more to stop the spread of hateful content online					
I will support the introduction of further specific legislation to stop the spread of hateful content online					
I think we will need to do more than introduce additional legislation to prevent the spread of hateful content online					
I think that people should be free to say whatever they want online					
I think that people should just ignore 'one off' hateful online content that is targeted at them					
I believe that everyone has a role in tackling hateful content online					

Thank You!

Thank you for helping us with our research. By sharing your experiences with us you have helped inform our research, which will contribute to making online spaces better and safer for everyone. You can follow updates about our research and publications here: <https://antibullyingcentre.ie/observatory/>. Please feel free to contact us with any questions you might have in relation to this survey.

If any of the issues raised in this research have affected you, please get in touch with the relevant services listed here.

Crime Victims Helpline Freephone: 116 006 Text: 085 133 7711 https://www.crimevictimshelpline.ie/how-we-help#getInTouch	Crime Victims helpline provides information and guidance to professionals, including doctors and counsellors who are working with victims of crime.
Hotline.ie hotline.ie/contact-us/report	Hotline.ie allows for people to report online illegal content – including intimate image abuse – via filling in an online form.
LGBT Helpline lgbt.ie/ Helpline: 1890 929539	The LGBT helpline offers support and information for LGBT people as well as their family and friends
Men's Development Network mensnetwork.ie/	The Men's Development Network works with men to tackle issues facing them. One major part of the network is stopping men's violence against women.
National Counselling Services (NCS) https://www.hse.ie/eng/services/list/4/mental-health-services/national-counselling-service/	The HSE National Counselling Service provides counselling and psychotherapy services. The NCS is available free of charge across the country to residents in the Republic of Ireland.
Rape Crisis Ireland rapecrisishelp.ie/ Helpline: 1800 778888	Rape Crisis Ireland offers support to victim/survivors of sexual violence via a 24 hour helpline and at Rape Crisis Centres across Ireland .
Samaritans Samaritans.org Helpline: 116123	The Samaritans offer a free 24h helpline for people who might be dealing with any difficult situations in their lives. .
Webwise www.webwise.ie/	Webwise is the Internet Safety Awareness Centre which provides resources for young people, parents and teachers.
Women's Aid womensaid.ie/ Free helpline: 1800 341 900	Women's Aid offers a free 24h helpline for women having experienced abuse – including online abuse

If you feel you have been subject to criminal activity, we encourage you to contact the authorities. You have the following options:

- Call 999/112 in an emergency
- Contact your local Garda Station (see station directory [here](#))
- For more information, see the [Garda Victim Service](#)

Researcher contact details

Dr Maja Brandt Andreassen: maja.brandtandreassen@dcu.ie



The Data Analysis

Data analysis approach

This report predominately reports on the descriptive and frequency statistics for all survey items pertaining to online hate. To understand tentative associations between key demographic factors in the dataset, a range of preliminary inferential tests were conducted to both corroborate key trends in the exploratory analyses, but also to facilitate future academic research to further analyse potentially predictive relationships.

All data analyses were conducted using IBM SPSS Statistics (version 28). Both descriptive and frequency (and/or percentage) data were calculated for all variables. Owing to the fact that the outcome data were both non-normally distributed and positively skewed, best practice corrective inferential tests were applied. To account for multiple testing, in addition to the relatively large sample size ($n = 1,048$), several precautions were taken to ensure conservative yet robust inferences could be made. The statistically significant threshold for interpreting p -values was set to an alpha level of .01, confidence intervals were set to 99%, and all outcomes were crossed-checked for consistency using simple bootstrapping procedures where applicable (using 1,000 samples and 99% confidence intervals). Effect size calculations are reported using eta-squared (η^2) – according to Field (2018), η^2 can be interpreted as follows: 0.01 = small effect size, 0.06 = medium effect size, and 0.14 (or above) = large effect size. Effect sizes using Hedges' g are also reported for t -tests where values of 0.20, 0.50, and 0.80 are considered to be indicative of small, medium, and large effects respectively.

Experiences of online hate across different age groups

A one-way ANOVA was conducted to examine whether the mean scores across the variable examining the frequency of online hate (“how many times, in your adult life, have you received a digital communication that offended...”) differed among the age groups within the sample. Results demonstrated a statistically significant difference, *Welch's F*(5, 289.10) = 28.87, $p < .001$, $\eta^2 = 0.06$. Post-hoc analyses using Games-Howell's test to account for multiple comparisons showed that the 18-24 age cohort were significantly more likely to report higher frequencies of online hate compared to: the 35-44 cohort ($p < .001$, 99% C.I. = [0.08, 0.92]), the 45-54 cohort ($p < .001$, 99% C.I. = [0.29, 1.22]), the 55-64 cohort ($p < .001$, 99% C.I. = [0.35, 1.41]), and the 65+ cohort ($p < .001$, 99% C.I. = [0.96, 1.84]). No significant difference was found between the 18-24 age cohort and the 25-34 cohort ($p = 0.01$); although this difference was borderline.

Experiences of online hate across different genders

A one-way ANOVA was conducted to examine whether the mean scores across the variable examining the frequency of online hate (“how many times, in your adult life, have you received a digital communication that offended...”) differed among genders. Results showed no statistically significant difference, *Welch’s* $F(3, 8.609) = 3.95, p = .050, \eta^2 = 0.02$. Post-hoc analyses using Games-Howell’s test to account for multiple comparisons revealed no significant mean differences between gender groups. Note, the $p < .01$ threshold was selected to determine statistical significance (in favour of $p < 0.05$ due to multiple testing, non-normal data and large sample size). It should be noted that the differences between men and women were borderline significant however ($p = 0.037$).

Experiences of online hate across sexual orientation

A one-way ANOVA was conducted to examine whether the mean scores across the variable examining the frequency of online hate (“how many times, in your adult life, have you received a digital communication that offended...”) differed among different sexual orientations that individuals identified with. Results demonstrated a statistically significant difference, *Welch’s* $F(5, 79.30) = 8.27, p < .001, \eta^2 = 0.04$. Post-hoc analyses using Games-Howell’s test to account for multiple comparisons showed that there was a statistically significant difference between those who identify as bisexual compared to those who identify as heterosexual ($p < .001, 99\%$ C.I. = [0.25, 1.35]), with the former more likely to report higher instances of online hate. These differences should be interpreted with caution given the considerably smaller number of those identifying as bisexual ($n = 58$) compared to those identifying as heterosexual ($n = 780$).

Experiences of online hate across different ethnicities

A one-way ANOVA was conducted to examine whether the mean scores across the variable examining the frequency of online hate (“how many times, in your adult life, have you received a digital communication that offended...”) differed among different ethnic identities in the sample. Results showed no statistically significant overall difference. These results should also be interpreted with caution given the notably smaller number of participants from ethnic groups (n ranging from 2 to 35 across ethnic minorities) compared to the majority Irish sample ($n = 693$).

Experiences of online hate across different religious identities

A one-way ANOVA was conducted to examine whether the mean scores across the variable examining the frequency of online hate (“how many times, in your adult life, have you received a digital communication that

offended...”) differed among different religious identities in the sample. Results showed a statistically significant overall difference, *Welch’s F*(7, 115.411) = 5.95, $p < .001$, $\eta^2 = 0.04$. The post-hoc analyses using Games-Howell’s test to account for multiple comparisons revealed that the following religious identities experienced higher and statistically significant levels of online hate, compared to the majority religion of the sample (Roman Catholic): Islam ($p < .01$, 99% C.I. = [0.03, 1.50]) and ‘other’ ($p < .01$, 99% C.I. = [0.10, 1.68]). ‘Other’ was an open-ended question where participants were invited to input their religion – responses included: Hindu (n = 11), Christian (n = 9), and Jehovah’s Witness (n = 2).

Experiences of online hate between those who did – or did not – consider themselves to have a disability

An independent sample *t*-test was used to examine any statistically significant differences in the frequency of reported online hate between those participants who responded to the question about disability (“Do you consider yourself to have a disability?”). The results showed that those who reported having a disability ($M = 2.41$ $sd = 1.19$) experienced statistically significant higher levels of online hate compared to those who had no disabilities ($M = 2$ $sd = 1.24$); $t(974) = 3.71$, $p < .001$, Hedges’ $g = 1.23$.

Experiences of online hate across different levels of Internet usage

A one-way ANOVA was performed to examine whether the mean scores across the variable examining the frequency of online hate (“how many times, in your adult life, have you received a digital communication that offended...”) differed among varying levels of participant internet usage (i.e., monthly, weekly, several times a week, or daily). Results showed no statistically significant overall difference.

Correlations between experiences of online hate and the use of different online platforms

To ascertain the presence of any significant associations between the use of specific online platforms and the frequency of online hate, a series of Pearson correlation tests were conducted using bias corrected and accelerated bootstrapped 99% confidence intervals (CIs). A statistically significant positive correlation was found between experiences of online hate and usage of the following platforms: Dating sites/apps ($r = 0.10$, $p < .01$ [0.01, 0.18]), Snapchat ($r = 0.15$, $p < .01$ [0.07, 0.24]), Games/gaming platforms ($r = 0.22$, $p < .01$ [0.14, 0.30]), and online discussion/forum platforms ($r = 0.15$, $p < .01$ [0.07, 0.23]). No other significant correlations were found.

The relationship between gender and self-reported reasons for being targeted online

A series of independent *t*-tests were conducted to examine any gender differences (men and women only due to sampling restrictions) within the participant's reported reasons for being targeted for online hate. Simple bootstrapping procedures (on 1,000 samples) were implemented using 99% confidence intervals. Results demonstrated a statistically significant difference between men and women on the following reasons:

- *Age*: Men were significantly more likely to be targeted due to their age compared to women (19% vs. 10%), $t(450) = 2.60$, $p < .01$, Hedges' $g = 0.25$.
- *Gender*: Women were significantly more likely to be targeted due to their gender compared to men (38% vs. 19%), $t(450) = -4.62$, $p < .001$, Hedges' $g = -0.45$.
- *Nationality*: Men were significantly more likely to be targeted due to their nationality compared to women (36% vs. 19%), $t(450) = 4.15$, $p < .001$, Hedges' $g = 0.38$.

No significant differences were found for: appearance, disability, ethnicity, political views, race, religion or sexual orientation.

Reacting to experiences of online hate

To examine how those who reported experiences of online hate (once, a few times, or multiple times) reacted, a series of independent samples *t* tests were performed across all demographic variables in response to the question "Did you do anything about this/these things". Of the 458 participants applicable to this category, the results showed no significant differences between the types of responses to online hate amongst the different demographic variables. Overall, 42% did do something, whilst 58% did not. To understand what respondents did when they did react to online hate, no significant associations were found between how they reacted and their demographic grouping.

Experiences of online hate across different religious identities

A series of one-way ANOVAs were conducted to examine the mean scores from the variables capturing the impact of online hate for different age-groups for respondents across seven domains (for example, relationship problems, problems at work, and financial loss). A separate set of one-way ANOVAs were also ran for this impact variable on genders. Note, the 65+ age cohort is not reported due to the low sample size ($n = 5$). Results

showed a statistically significant overall difference for age (but not gender), for each of the following impact statements:

- *Relationship problems with family or friends* ($F(5, 450) = 3.15, p = .008, \eta^2 = 0.03$). Post-hoc analyses using Games-Howell tests determined that the significant differences lay between 25-34 and 45-54 age cohorts where the former were significantly more likely to report a negative impact on family or friend relationships ($p < .001, 99\% \text{ C.I.} = [0.08, 0.79]$). No other significant relationships between age groups were found on this impact statement.
- *Reputational damage* ($F(5, 450) = 3.25, p = .007, \eta^2 = 0.04$). Post-hoc analyses using Games-Howell tests determined that the significant differences lay between the younger and older cohorts. A key significant difference was found between the 25-34 and 45-54 age cohorts where the former were significantly more likely to report reputational damage ($p = .0012, 99\% \text{ C.I.} = [0.05, 0.89]$). Similarly, a significant difference lay between the 35-44 and 45-54 age cohorts where the former were significantly more likely to report reputational damage ($p < .001, 99\% \text{ C.I.} = [0.10, 0.99]$). No other significant relationships between age groups were found on this impact statement.
- *Problems at work* ($F(5, 450) = 4.47, p < .001, \eta^2 = 0.05$). Post-hoc analyses using Games-Howell tests determined that the significant differences lay between the younger and older age cohorts. Compared to the 45-54 age cohort, those aged 18-24 were significantly more likely to report problems at work ($p < .001, 99\% \text{ C.I.} = [0.13, 0.89]$). This same pattern was also evident for 25-34 age cohorts, who were significantly more likely to report problems at work compared to those aged between 45-54 ($p < .001, 99\% \text{ C.I.} = [0.22, 0.86]$). Lastly, the 35-44 age cohort were significantly more likely to report problems at work compared to those aged between 45-54 ($p < .001, 99\% \text{ C.I.} = [0.10, 0.75]$). No other significant relationships between age groups were found on this impact statement.
- *Problems at school* ($F(5, 450) = 7.42, p < .001, \eta^2 = 0.08$). Post-hoc analyses using Games-Howell tests determined that, as per previous patterns or results, the significant differences were found between the younger and older cohorts. Respondents aged 18-24 were significantly more likely to experience problems at school than the 45-54 cohort ($p < .001, 99\% \text{ C.I.} = [0.29, 1.16]$), and likewise the 55-

64 cohort ($p < .001$, 99% C.I. = [0.22, 1.19]). Similarly, those in the 25-34 age cohort were significantly more likely to experience problems at school than the 45-54 cohort ($p < .001$, 99% C.I. = [0.27, 1.00]), and likewise the 55-64 cohort ($p < .001$, 99% C.I. = [0.18, 1.04]). Lastly, the 35-44 age cohort had a significant difference in reported problems at school compared to the 45-54 cohort ($p = .005$, 99% C.I. = [0.02, 0.78]).

No other statistically significant results were found for other impact statements (financial loss, no negative impact, or problems with romantic relationships).

Understanding the perceived motivations of those perpetrating online hate – an analysis by gender and age

A series of one-way ANOVAs were conducted to examine the potential motivations of those perpetrating online hate (for example, sexual gratification, harassment, and financial loss). These analyses were conducted separately for gender and age to ascertain if any statistically significant patterns were evident. Note, the 65+ age cohort is not reported due to the low sample size ($n = 5$). Results demonstrated no significant findings.

Attitudinal outcomes for those who have experienced online hate

Of those who reported experiences of online hate (once, a few times, or multiple times) ($n = 458$), a series of one-way ANOVAs were conducted to examine any attitudinal differences between the different age and gender groupings. A statistically significant result was found for the following attitudinal statements:

- *I believe social media platforms should do more to stop the spread of hateful content online (Welch's $F(5, 40.17) = 3.69$, $p = .008$, $\eta^2 = 0.04$).* A statistically significant difference was found during post-hoc analyses using Games-Howell's test to account for multiple comparisons. 18-24 age cohorts were significantly less likely to agree with this statement compared to the 55-64 cohort ($p = .006$, 99% C.I. = [-1.66, -0.04]).
- *I will support the introduction of further specific legislation to stop the spread of hateful content online (Welch's $F(5, 38.13) = 4.31$, $p = .003$, $\eta^2 = 0.05$).* Post-hoc analyses using Games-Howell's test to account for multiple comparisons showed that the 18-24 cohort were significantly less likely to agree with this statement, compared to the

25-34 cohort ($p = .01$, 99% C.I. = [-1.03, 0.00]), the 45-54 cohort ($p = .004$, 99% C.I. = [-1.44, -0.06]), and the 55-64 cohort ($p = .008$, 99% C.I. = [-1.73, -0.01]). No other significant differences were found.

- *I think that people should just ignore 'one off' hateful online content that is targeted at them (Welch's $F(5, 41.71) = 8.15$, $p < .001$, $\eta^2 = 0.04$).* Post-hoc analyses using Games-Howell's test to account for multiple comparisons showed that this difference was attributable to the 45-54 and 65+ cohorts, but due to low sample size in the latter, this difference should be interpreted cautiously.
- *I believe that everyone has a role in tackling hateful content online (Welch's $F(5, 39.99) = 4.39$, $p = .003$, $\eta^2 = 0.05$).* Post-hoc analyses using Games-Howell's test to account for multiple comparisons showed that the 18-24 cohort were significantly less likely to agree with this statement compared to the 35-44 cohort ($p = .002$, 99% C.I. = [-1.02, -0.07]).

No statistically significant results were found for gender on any attitudinal statement.