

Survey on users' concerns regarding interdependent data online

Part I: Demographics

- 1) What is your gender?
☐ Male ☐ Female ☐ I prefer not to answer
- 2) What is your age?
- 3) What is your primary area of employment?
☐ Homemaker ☐ Retired ☐ ... ☐ Transportation ☐ Other

Part II: Privacy and discrimination

- 4) From a *privacy* point of view, *do you care* about being associated with the following data shared online?
☐ Textual data, such as status updates on Online Social Networks
☐ Location data, such as check-ins on Online Social Networks
☐ Multimedia data, such as posts containing pictures or videos on Online Social Networks
☐ Genomic data of your relatives shared on specific platforms (e.g., 23andme)
☐ Other
- 5) Do *you* feel that you have been the *victim of discrimination* or prejudice (e.g., for a job application, insurance premiums, social or professional situations, loan application, etc) based on *content about you online* (e.g., pictures or videos)?
☐ Yes, more than once ☐ Yes, once ☐ No, never
- 6) [Conditioned on the response to Q5] Do you feel that the *discrimination or prejudice* was caused by *content that you shared or someone else shared*?
☐ Myself ☐ Someone else ☐ Both
- 7) [Conditioned on the response to Q5] In which of the following domains did *you experience discrimination or prejudice* caused by content shared online? (We would appreciate any details about the context of the stories that you are comfortable sharing).
☐ A job application
☐ Professional situations
☐ Familial or social situations
☐ Insurance premiums (health, car, etc.)
☐ Loan application (including mortgage)
☐ Other
- 8) From a *privacy* point of view, *do you care* about being associated with the following data shared online?
☐ Textual data, such as status updates on Online Social Networks
☐ Location data, such as check-ins on Online Social Networks
☐ Multimedia data, such as posts containing pictures or videos on Online Social Networks
☐ Genomic data of your relatives shared on specific platforms (e.g., 23andme)
☐ Other

Part III: Multimedia data online

- 9) On average, how often do *you share* pictures or videos online?
☐ Very often (Almost daily) ☐ Somewhat often (A few times / week) ☐ Occasionally (A few times / month)
☐ Infrequently (Less than a few times / month) ☐ Never
- 10) On average, what proportion of the pictures and videos that *you share* online contains *faces of people other than yourself*?
☐ None ☐ Few of them (some, but less than half) ☐ About half ☐ Most of them (more than half, but not all) ☐ All
- 11) On average, how often do *your friends share* online pictures or videos on which *you appear*?
☐ Very often (Almost daily) ☐ Somewhat often (A few times / week) ☐ Occasionally (A few times / month)
☐ Infrequently (Less than a few times / month) ☐ Never
- 12) Does anyone (or did in the past) have *sexually explicit images* or videos of yourself, either because they took them directly, or because they were shared with them?
☐ Yes ☐ No ☐ I prefer not to answer
- 13) [Conditioned on the response to Q12] How did this(these) person(s) obtain *sexually explicit pictures or videos of you*?
☐ They took them
☐ I took them and shared them
☐ Someone else took them and shared them
☐ I do not know
- 14) Did *you ever have* access to *sexually explicit images or videos of someone else*, either because you took them directly or because they were shared with you?
☐ Yes ☐ No ☐ I prefer not to answer
- 15) [Conditioned on the response to Q14] How did you obtain sexually explicit pictures or videos of someone else?
☐ I took them
☐ They took them and shared them with me
☐ Someone else took them and shared them with me
☐ I do not remember

- 16) Have *you* ever been the *victim of revenge porn*¹ (e.g., someone sharing sexually explicit pictures of you without your consent)?
☐ Yes ☐ No ☐ I prefer not to answer
- 17) On average, how often do *you* *share* pictures or videos online?
☐ Very often (Almost daily) ☐ Somewhat often (A few times / week) ☐ Occasionally (A few times / month)
☐ Infrequently (Less than a few times / month) ☐ Never

Part IV: Social networks usage

- 18) Do you currently have a Facebook account?
Please note that we will not ask you any questions revealing personal identifiable information. Facebook usage related questions are only for screening purposes.
☐ Yes ☐ No
- 19) [Conditioned on the response to Q18] How often do *you* *tag or mention friends* on Facebook (either in a status or on a picture)?
☐ Very often (Almost on every one of my posts) ☐ Somewhat often (On more than half of my posts)
☐ Occasionally (On less than half of my posts) ☐ Infrequently (Hardly ever or on very few of my posts)
- 20) [Conditioned on the response to Q18] When *you* *add content regarding others* on Facebook (e.g., a picture or video in which they appear), which of the following methods do you use?

[Illustration removed]

- ☐ I tag their face (e.g., in pictures)
☐ I use the "with" tags in the status or in the picture description
☐ I link their name (e.g., by using "@" in a status, in a picture description or in comments)
☐ I might not tag at all or link others' names when I post content about them
- 21) [Conditioned on the response to Q18] How often do *your friends* *ask you to remove* status updates and/or pictures that you have shared of them on Facebook?
☐ Very often (Almost every time) ☐ Somewhat often (More than half the times)
☐ Occasionally (Less than half the times) ☐ Infrequently (Hardly ever or extremely rarely)
- 22) [Conditioned on the response to Q18] How often have you noticed *your friends* *untag themselves* from status updates and/or photos in which you had tagged them ?
☐ Very often (Almost every time) ☐ Somewhat often (More than half the times)
☐ Occasionally (Less than half the times) ☐ Infrequently (Hardly ever or very rarely)
- 23) [Conditioned on the response to Q18] How often does *someone else* *tag you* in a status update or a picture on Facebook?
☐ Very often (Almost daily) ☐ Somewhat often (A few / week) ☐ Occasionally (A few / month) ☐ Infrequently (Less than a few / month)
- 24) [Conditioned on the response to Q18] When *others* *add content regarding you* on Facebook (e.g., a picture or video in which you appear), which of the following methods do they use?

[Illustration removed]

- ☐ They tag my face (e.g., in pictures)
☐ They use the "with" tags in the status or in a picture description
☐ They link my name (e.g., by using "@" in a status, in a picture description or in comments)
☐ They post content about me, but do not tag or link my name, so I don't get notified. I have to look at their activity to identify such content.
- 25) [Conditioned on the response to Q18] How often do *you* *ask your friends to remove* status updates and/or pictures that they have shared of you on Facebook?
☐ Very often (Almost every time) ☐ Somewhat often (In more than half of the cases)
☐ Occasionally (In less than half of the cases) ☐ Infrequently (Hardly ever or in very few of the cases)
- 26) [Conditioned on the response to Q18] How often do *you* *untag yourself* from status updates and/or photos in which other people had tagged you?
☐ Very often (Almost every time) ☐ Somewhat often (In more than half of the cases)
☐ Occasionally (In less than half of the cases) ☐ Infrequently (Hardly ever or in very few of the cases)

Part V: A world of consent

- 27) We have designed a *system* that requires *consent from everyone appearing in a picture before* their faces are uploaded online (e.g., on Facebook). Therefore, you will be asked to *accept* or *deny* that you are visible in every picture that your friends post of you. Note that this can be automated with automatic policies (e.g., always decline for sexually explicit content).
Our system guarantees *privacy* to the users with respect to each picture. This means that:
 - Facebook or our system itself would *not* be able to see the actual part of the picture in which you appear *before* you give consent.
 - our system would *not* be able to link your identity with any given picture *before* you give consent.
How useful would you find this system? (We would greatly appreciate any additional comments about the reasons for your choice).
☐ Very useful ☐ Useful ☐ Neither useful nor unuseful ☐ Somewhat useful ☐ Not useful at all
Please enter your comment here:

- 28) In order to limit the *burden of manually reviewing* each and every one of the pictures requiring your consent, *you could specify automatic policies*. Which one of the following would you use:
☐ Deny for sexually explicit images
☐ Deny for partial nudity (e.g., photos in a swimsuit)
☐ Deny for geo-tagged photos (where location is specified)

¹Revenge porn (sometimes lengthened to revenge pornography) is the sexually explicit portrayal of one or more people that is distributed without their consent via any medium. The sexually explicit images or video may be made by a partner of an intimate relationship with the knowledge and consent of the subject, or it may be made without his or her knowledge. The possession of the material may be used by the perpetrators to blackmail the subjects into performing other sex acts, to coerce them into continuing the relationship, or to punish them for ending the relationship. Halder and Jaishankar (2013) define Revenge porn as: "an act whereby the perpetrator satisfies his anger and frustration for a broken relationship through publicizing false, sexually provocative portrayal of his / her victim, by misusing the information that he may have known naturally and that he may have stored in his personal computer, or may have been conveyed to his electronic device by the victim herself, or may have been stored in the device with the consent of the victim herself; and which may essentially have been done to publicly defame the victim". Source: https://en.wikipedia.org/wiki/Revenge_porn

☐ None of these

☐ Other

- 29) In order to limit the *burden of manually reviewing* each and every picture posted, another option would be to manually review a few pictures posted when first using the system. During this initial phase, *the system learns* your individual decision patterns (e.g., the friends you usually allow to post pictures or the type of pictures you usually deny or accept). After this initial phase, you *let the system make decisions on your behalf*. The system would be set up that when its confidence is not very high (a confidence level which you can specify, therefore *you control the level of automation you want to allow*), it would still prompt you for manual decisions and use them to further learn.

Would you use this feature?

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

- 30) In order for our system to identify *you* in future pictures, you would have to *register* by providing *a few webcam or phone camera pictures*. Our system does *not store these pictures* themselves, but uses them to compute representations of your face. The computations are done locally on your smartphone or computer.

How comfortable would you be with this? (We would greatly appreciate any additional comments about the reasons for your choice).

☐ Very comfortable ☐ Comfortable ☐ Neither comfortable nor uncomfortable ☐ Uncomfortable ☐ Very uncomfortable

Please enter your comment here:

- 31) Consequently, when *you want to post* a picture in which *others appear*, a sanitized version of this picture is initially shared online, in which the faces of others are blurred for privacy reasons, but the background of the picture and yourself are fully visible. We emphasize that the sharing of your picture would not be slowed down by in any way. As soon as others give consent, their face is *automatically made visible* in the picture.

Would you find this inconvenient? (We would greatly appreciate any additional comments about the reasons for your choice).

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

Please enter your comment here:

- 32) Considering the aforementioned benefits and functionality of our system, *would you consider using this system?* This is a general question, we will not contact you for further experiments, but we would greatly appreciate any additional comments about the reasons for your choice.

☐ Yes ☐ Maybe ☐ No