This template MUST be used for new Social Behavioral studies submitted in eIRB+ on or after May 28, 2021.

This protocol must be completed for human subjects research studies **unless your study will ONLY involve secondary data and/or specimen analysis** (use **HRP-1704** for secondary data analysis/specimen analysis studies). Use this protocol template whether your study will be determined to be exempt or approved via other IRB review procedures (investigators do not make their own determination as to whether a research study qualifies for an exemption -- the IRB issues exemption determinations). **If you are unsure whether your project is human subjects research requiring IRB review**, complete and submit **HRP-503** instead of this document.

NOTE: Your consent documents, data collection instruments (surveys, questionnaires, interview guides, etc.), and recruitment materials need to be uploaded in eIRB+ in the consent, recruitment, and supporting documents sections of the application and should NOT be attached or incorporated into this protocol document. For any supporting documents you upload, please use filenames for the documents that make clear what type of document you are uploading. If your study will include multiple phases, please make sure the filename is clear as to which phase of the study the document is related to.

TIPS ON COMPLETING THE PROTOCOL FORM:

- If any sections are not applicable to your research, mark that section as N/A (for not applicable)
- Keep an electronic copy of your protocol. If you submit modifications to your study at a later time, you will need to include tracked changes to all affected study documents, including the protocol.
- As you write this protocol, remove the text boxes and all instructional text contained inside the text boxes in each section. There should be no text boxes or instructional text (including these instructions) in the final version of your protocol.
- If you plan to access **HIPAA Protected Health Information (PHI) from medical records** for recruitment and eligibility screening purposes and/or to analyze as research data, you must fill out and upload **Appendix B (HRP-1724)** in addition to this protocol document.

STUDY TITLE:

Understanding users' privacy and security attitudes towards data breaches in Indian public and private online services.

PRINCIPAL INVESTIGATOR:

Name: Mainack Mondal
Department: Computer Science and Engineering

CO-INVESTIGATORS:

1) Name: Aryan Gupta
   Department: Chemical Engineering

2) Name: Naveen Sani
   Department: Industrial and Systems Engineering

3) Name: Apoorv Modak
   Department: Industrial and Systems Engineering

VERSION DATE:

21 Novemer 2021

RELATED STUDIES:

NA

Check any **applicable** boxes in the table below – you will be asked for further detail on these topics later in the protocol form:

Indicate Vulnerable Population(s) to be Enrolled	☐ Children ☐ Cognitively Impaired Adults ☐ Pregnant Women (IF the research activities will affect the pregnancy or the fetus) ☐ Prisoners (or other detained/paroled individuals) ➔ Not Applicable to our study.
International Research (check this box if you will collect data from individuals located outside the United States)	☐
Research involving external collaborators (some research activities will be carried out by individuals not employed by Northwestern or NU affiliates)	☐
Research has U.S. Federal government funding via direct award or a sub-award (e.g., NIH, NSF, other federal agencies or departments)	☐

1.0 Purpose and rationale of the study:

The study aims at identifying possible correlations of factors that exist among public and private service users about the knowledge and trust of data protection they vest in a particular service. The research questions aim at finding correlations between the usual demographics and financials of a user, with the consciousness about the shared data to the services. We would have conducted a survey to obtain the ususal demographics and identify a trust model existing in users regarding the services they use.

2.0 Enrollment Criteria (who can be in your study and who would not be eligible to participate in your study):

We strictly aim at recruiting individuals of and above 18 years of age. This study doesn't include any kind of vulnerable populations in the data acquisition process. All the mentioned categories of vulnerable populations (as per the IRB guidelines) have not been included in out research.

3.0 Sample Size:

The study aims at including sizable participation from each age group cluster for accurate representation and scalable results from the research. From an assumption of the population of India of about 1.3 billion people, 95 percent confidence in accurate representation of results for the population obtained from the sample, including a margin error of about 5 percent, we get a sample size of about 385 participants.

4.0 Recruitment and Screening Methods:

The recruitment for the study involves mixed method as in directly approaching the community from Kharagpur, along with willing participants to respond, approached via platforms like Facebook, Instagram and Linkedin posts (and other viable social media platforms). Willing participants to research and the survey are not screened very strictly, but have been asked for the educational affliliations to obtain legitimate and reasonable responses.

5.0 Research Locations:

The research will be conducted from the premises of Indian Institute of Technology, Kharagpur itself. All the required permissions will be asked from the authorities and guidance from our mentor Professor Mondal will be acquired.

6.0 Multi-site Research (research that involves external collaborating institutions and individuals):

NA

7.0 International Research (where data collection will occur outside the United States and U.S. territories, including online activities)

NA

8.0 Procedures Involved:

Please check the boxes for all applicable data collection procedures you plan to use:
☐One-on-one interviews
☐Focus Groups
☒Questionnaires/surveys
☐Analysis of secondary data (medical record data, educational records, government or private sector datasets, etc.)
☐Ethnographic observation
☐Physiological measurements (e.g., EEG, EKG, MRI)
☐Biospecimen collection (saliva samples, blood draws, hair samples, etc.)
☐Mobile applications/data collection devices (e.g., Fitbits, actigraphs, etc.)
☐Behavioral decision making tasks (e.g., puzzles, interactive games, etc.)
☐Physical activities such as walking and other forms of exercise
☐Other procedures (briefly list types of procedures here if not covered by the check-boxes above): _____

The data collection will be done with the help of a survey to gauge user demographics and trust model beliefs in the systems and services asked about. The survey requires about 3-4 mins to understand and obtain reasonable and complete responses from the participants. We estimate about a 1 month of time to achieve valid responses corresponding to our sample size.

9.0 Research with Vulnerable Populations

NA

10.0 Incomplete Disclosure or Deception:

NA

11.0 Consent Process:

The consent for the survey is attached in the survey questionnaire itself and users will be clearly stated about their agreement to the consent of use of data for research purpose and anonymity and confidentiality of participating users. The actual signature of the participant will be hard to acquire in this online form but we aim to obtain this waiver for participant's signature for their consent.

12.0 Waiver of Participant Signature on Consent Form:

Since the study involves a survey in an online format, therefore it is hard to incorporate a physical or legitimate signature of any sort to our survey, hence we express this inability to not being able to obtain the participant's signature.

13.0 Waivers and Alterations of Consent Information:

NA

14.0 Financial Compensation:

NA

15.0 Audio/Video Recording/Photography

NA

16.0 Potential Benefits of this Research:

The analysis of trust model of users obtained for various demographically diversified participants will yield benefits to society in terms of development of robust models and systems for careless data handling scenarios and create awareness about the cost of suffering from the breached credentials of users.

17.0 Potential Risks to Participants:

There is no possible risk or harm to participating users in the study, unless a case of breach of confidentiality for which we will be following strict protocols for prevention of user anonymity.

18.0 Provisions to Protect Participant Privacy and Data Confidentiality:

The information obtained from the survey which has been proposed for the research topic will be anonymized and stripped of the names and educational affiliations associated to them. This will be duly informed to the survey participant in the questionnaire itself.

19.0 Data Monitoring Plan to Ensure the Safety of Participants:

NA

20.0 Long-term Data and Specimen Storage and Sharing:

NA

21.0 Qualifications of Research Team to Conduct the Research:

All the co-investigators in this research have taken the Usable Security and Privacy Course – CS60081 under the guidance of Professor Mainack Mondal to understand the various principles involved in these research studies. This is the first research study being undertaken by the co-investigators.