

Human Computer Interaction (In English)

Prof. Rajiv Ratn Shah

**Department of Computer Science and Engineering
Institute IIT Madras**

IRB Overview

Hi everyone, I am Ritwik Bamba and I am your teaching assistant for the course on Human-Computer Interaction. Today, we are going to discuss the importance of IRB, Institutional Review Board. Well, first you need to look at what is IRB, what are the processes in obtaining an IRB approval, what are the challenges and the takeaway. Well so the context is that a graduate student plans to study the impact of gamified interfaces on users motivation the project involves recruiting undergraduate students to participate in usability testing sessions well for the same the irb process will involve the proposal submission which the student submits a detailed proposal, including the objectives, participant recruitment, data collection methods, and a plan for anonymizing the data. Further, we move on to the feedback part, where the IRB requests revisions to the informed consent form, which initially may have lacked clear explanations of data use, as well as the participant rights. Finally, after changes have been made addressing the feedback, the study receives an expedited approval due to its minimal risk nature.

The challenges that the researcher may face is actually underestimating the timeline for the approval and the delay to get the approval for the same. This highlights the importance of planning ahead. Finally, the takeaway from the same is the IRB approval ensures that the participants were fully informed, the data remained secure, and the study adhered to ethical standards preventing any legal or reputational risks. So well, what can go wrong without an IRB approval? Well, first and foremost, harm to participants.

The researchers may actually collect sensitive data without properly anonymizing it. A data breach exposes the participants' identities, medical histories, which can lead to embarrassment or discrimination. For the same, the consequences would actually include violating the participants' privacy, causing them psychological or financial harm, which may further lead to lawsuits or legal action. Secondly, there may be an exploitation of vulnerable groups. If the study was to recruit economically disadvantaged individuals for high risk experiments, exploiting their financial need without adequate safeguards may actually pose risk.

This can lead to exploitation, legal repercussions and a damaged institutional reputation

due to the unethical practices. Finally, legal and financial consequences conducting an study without proper IRB approval may violate regulations which may lead to penalties, lawsuits or a loss of funding for the researcher and the institution. Well, the institution may face fines and suspension of all research activities. Well, these are some of the common pitfalls during the IRB approval. incomplete application, poorly defined research objectives, inadequate consent process, insufficient data privacy and security plans, ignoring any cultural or demographic sensitivities, overlooking the need for amendments, misinterpretation of exemption criteria, and lack of awareness of the institutional process.

These are some of the various qualitative and quantitative research methods. which may include survey or questionnaires, experiments, secondary data analysis, which comes under quantitative research methods. For qualitative research methods, we have interviews, focus groups, case studies, and grounded theory or narrative analysis. This was it for this session. Thank you so much.