



# Chapter 1

## Graduate Student Investigator: Best Practices for Human Research Protections Within Online Graduate Research

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### ABSTRACT

*This chapter presents the best practices used by institutional review boards (IRBs) and human research protections programs (HRPPs) to prepare online graduate student investigators for human research protections specific to research within online graduate degree programs or where research supervisors are not proximal to graduate student investigators and their research protocols. In recent years, advances in artificial intelligence (AI), machine learning (ML), and other data mining/scraping forms have adversely impacted individual privacy and the unintended sharing of personally identifiable information (PII). With this growth of ubiquitous digital technologies, such as AI, ML, and data mining/scraping, used across online graduate degree programs, specialized training and preparation are needed to best prepare graduate student researchers for human research protections involving data with PII.*

### INTRODUCTION

A graduate student's submission of their research to the institutional review board (IRB) or some form of a research ethics committee is often a rite of passage remembered long after the student has completed the graduate degree. The purpose of the IRB is to ensure the safety of human subjects involved

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in research, privacy, and confidentiality for human subjects identifiers, fairness and equity in research recruitment, and to ensure risks are minimized for all research involving human subjects and/or their data, and to make certain no physical or psychological harm comes to the research participants (Lewis & Throne, 2021). In short, graduate student researchers must be best prepared to follow the rules and regulations to ensure ethical and responsible graduate research is conducted. However, some graduate student researchers blamed their research supervisors or the institution for lacking confidence and preparedness (Ciampa & Wolfe, 2019). Other graduate student researchers shared concerns over the constraints on their research due to the IRB and called for reimagining ethical research preparation in graduate education (Slovin & Semenec, 2019).

While submission of the graduate research protocols to the IRB or other ethical review processes may often be seen as a critical milestone for graduate student researchers, some past scholarly researchers have noted the impediments that may be encountered in the submission of the research to the IRB (Lewis & Throne, 2021; Lynch & Kuntz, 2019; Slovin & Semenec, 2019). Some institutions maintain “normalized research” expectations that may lead to unintended obstacles for graduate student researchers designing research protocols that may deter from what may often be perceived as this normalized course of inquiry (Lynch & Kuntz, 2019, p. 12). For example, Lynch and Kurtz (2019) reported on past research that noted this positioning of the IRB or other academic review as the gatekeeper for traditional expectations had been found to lead graduate student researchers to employ research protocols to ensure such reviews are “without interrogation,” thereby deviating from their initial inquiry intentions (p. 12). At the same time, others have referred to this normalized or traditional IRB journey as a “post-positivist” view to maintain a status quo in the expectations for graduate research (Slovin & Semenec, 2019, p. 15).

Yet, still, others have noted that some faculty researchers perceive the IRB as an unnecessary process and conduct research out of bounds even though they understand the IRB and their aims are consistent with a desire to advance knowledge while protecting human subjects from harm or risk (Reisig et al., 2022). Unfortunately, these intentional IRB boundary violations may be passed on within the mentoring process of graduate student researchers when the online graduate program does not provide an otherwise sound and adequate foundation for ethical preparations to ensure responsible research. In this context, responsible and ethical research requires the training of graduate student researchers to comply with the policies and expectations of the IRB and/or human research protections program (HRPP) or other ethical research review processes.

Concurrently, other past researchers have reported on graduate students’ frustration over their unpreparedness when submitting their research protocols to the IRB (Ciampa & Wolfe, 2019). In a study of a Doctor of Education program, Ciampa and Wolfe (2019) noted that graduate students reported receiving no preparation for the intricacies of submission of their research to the IRB or an understanding of the expectations for data collection and analysis in their submissions. Graduate students shared these feelings of unpreparedness from designing their research to completing the IRB application, and thereby, risks in the submission of the IRB application were identified as they had little confidence in whether their research protocols would be accepted.

When graduate student researchers’ preparation for ethical and responsible research and human subjects protections is not addressed intentionally within the graduate program, the problems reported in the past scholarship for these students’ experience may persist. However, with the emergent use of artificial intelligence (AI), machine learning (ML), and other ubiquitous technologies in graduate research, this preparation becomes even more essential to ensure the practice of ethical and responsible graduate research across disciplines. When well synthesized within the design of the graduate program, a research

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