

Guidance Document	Ethical Challenges in Online Research: Bots, suspicious data, and other issues
Effective Review	NMREB; Delegated & Full Board
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Introduction:

The Office of Human Research Ethics (OHRE) and Non-Medical Research Ethics Board (NMREB) are aware that many researchers gathering data from online participants are facing a growing series of challenges. Some of these arise because of the Board’s current interpretation and application of the TCPS2, which may require researchers to provide compensation to participants whose data provides no value (e.g., because the data is generated fraudulently, carelessly, or by an obvious “bot”). This comes at the cost of researchers’ budgets, data quality, and resulting research outcomes. The NMREB acknowledges that the spirit of the TCPS2 is to maximize participant protection while also upholding the integrity of the research enterprise and providing reasonable protections for researchers and their institutions. This document provides a summary of related concerns that have been raised, the NMREB’s response, and some potential solutions that researchers can consider implementing in their research projects.

General NMREB Standards:

While remaining the ‘status quo’, the following ethical standards have proven potentially problematic for some researchers engaged with online participants:

- Participants are entitled to the specified amount of compensation for participating in, not completing, study activities;
- Participants have the right to withdraw at any time and/or skip any questions without consequence (including their right to compensation); and
- When using crowdsourcing platforms (e.g., MTurk, Prolific), researchers are not permitted to reject HITs/participants as this would result in a harm to the participant.

Updates to NMREB Reviews:

Acknowledging the challenges researchers may face in these online contexts, the NMREB has implemented the following modifications to the NMREB Initial Application form:

- Researchers will be prompted to consider how to protect themselves from illegitimate data when they indicate they are conducting online surveys/questionnaires/tasks;
- Researchers will be prompted to consider circumstances under which they may withdraw a participant and/or their data from the study; and
- Researchers will be prompted to describe any circumstances which would result in a consenting participant not receiving compensation.

The Board has agreed to the possibility of approving (upon initial approval and/or in an amendment) unique strategies proposed by researchers to minimize costs and promote data integrity, provided the core ethical principles of research involving humans remain upheld: *Respect for Persons, Concern for Welfare, and Justice.*

Important Note: The information provided in this document is intended as an “FYI” only. The strategies noted below may not be necessary or sufficient, and researchers are encouraged to investigate the most appropriate solutions for their unique research needs.

Proposed Strategies for Researchers' Consideration:

Several suggestions to address some of the above-noted concerns have been posed based on researchers' experiences, the literature, and Board discussion. Different challenges may be faced by researchers depending on the specific recruitment platform (e.g., MTurk vs. Prolific vs. social media). Further, the specific research context is going to impact the appropriateness of various strategies (e.g., minimal vs. high risk, sensitive topics, vulnerable populations requiring special considerations, etc.). Therefore, the corresponding solutions may also vary.

While not an exhaustive list, the following strategies have been suggested as options researchers can consider incorporating into their projects:

- Budgeting for oversampling to accommodate poor quality data from online samples;
- Implementing specific and robust screening questions and procedures to ensure all participants meet eligibility requirements prior to consenting to participate;
- Including captchas, obvious attention checks, easy arithmetic questions in a multiple choice setting, etc. to ensure participants are not 'bots' or otherwise careless responders;
- Using features available in Western's Qualtrics survey platform to promote the legitimacy of the responses (e.g., unique survey links, random ordering of options for eligibility questions, ballot stuffing, response quota, reference URL to ensure respondents access link from specific recruitment site, etc.);
- Adding language to the Letter of Information and Consent (LOI/C) detailing the researchers' expectations regarding participation (e.g., participating only once, and participating in 'good faith').

In some cases, additional measures which would typically challenge the status quo might be ethically appropriate - provided they are justified in the REB application and communicated to participants in the LOI/C. Such measures might include:

- Requiring written consent and/or identity verification prior to enrolling participants and sharing with them the online data collection materials;
- Programming the online tools to include mandatory questions (with 'prefer not to answer' options where possible/appropriate); and
- Allowing researchers to reserve the right not to compensate participants under specific pre-stipulated conditions (e.g., receiving gibberish in text boxes, failed attention checks, illogical responses), with an opportunity to allow participants to object in a due process if they are legitimate.

Additional Opportunities:

Western's NMREB also recognizes that this issue is situated within the larger context of Western University's research ecosystem, and that the Board's role in ensuring research integrity and the responsible use of research funds is limited. Additional stakeholders within Western have also been made aware of these challenges, but further consultations with Western Research, Western Technology Services, Western's Technology Risk Assessment Committee, and the academic units (e.g., Associate Deans (Research) and Research Officers) may also be necessary to educate and support researchers regarding these important matters.