Ethics – When, Why, How?

Doing Research in Natural Language Processing
The University of Edinburgh

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Agenda

• Why ethics?
• What needs ethics approval?
• How do I apply?
• What happens after I have applied?
• Q&A
Why ethics?

Facebook emotion study breached ethical guidelines, researchers say

Lack of ‘informed consent’ means that Facebook experiment on nearly 200,000 news feeds broke rules on tests on human subjects, say scientists

Poll: Facebook’s secret mood experiment: have you lost trust in the social network?

Tay, Microsoft’s AI chatbot, gets a crash course in racism from Twitter

Attempt to engage millennials with artificial intelligence backfires hours after launch, with Tay Tweets account citing Hitler and supporting Donald Trump

Tay uses a combination of artificial intelligence and editorial written by a team including improvisational comedians. Photograph: Twitter

Microsoft’s attempt at engaging millennials with artificial intelligence has backfired hours into its launch, with waggish Twitter users teaching its chatbot how to be racist.

NEWS FEATURE | 18 November 2020

The ethical questions that haunt facial-recognition research

Journals and researchers are under fire for controversial studies using this technology. And a Nature survey reveals that many researchers in this field think there is a problem.

Richard Van Noorden

AP WAS THERE: Black men untreated in Tuskegee Syphilis Study

Black men who died of syphilis at the Tuskegee Syphilis Study were denied proper health care even after it was revealed they were being studied. Photograph: AP

Panel Judgments on Charges

In 1982, a federal judge ruled that the Tuskegee Syphilis Study was unethical. Since then, a series of events have led to the understanding that the study was unethical.

The results found that users’ emotions were the same as those that were experienced by others. Photograph: PA

1932 is made with the same technique used to create films in the 1930s. Photograph: PA

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Why ethics?

UKRI Training Grants
Standard Terms and Conditions and Training Guidance

TGC 3 Research Governance
TGC 3.1 Research Ethics, Misconduct and Conflicts of Interest

TGC 3.1.1 You are responsible for ensuring that ethical issues relating to a Student’s research activity funded from the Training Grant are identified and brought to the attention of the relevant approval or regulatory body. Before any such work requiring approval begins, approval must have been granted by the relevant body.

TGC 3.1.2 You must follow Our Policy and Guidelines on Governance of Good Research Conduct at: https://www.ukri.org/about-us/policies-and-standards/research-integrity/ and ensure that the requirements set out in the Concordat to Support Research Integrity (2015) are met. In particular, You are responsible for ensuring all necessary permissions have been obtained before the research activity begins, that there is clarity in roles and responsibilities among Students, Supervisors and any other Third Parties, as well as monitoring and reporting unacceptable research conduct. Any potential conflicts of interest in research must be declared to Us and subsequently managed.

Ethics
TGC 3.1.3 Research Ethics, Misconduct and Conflicts of Interest

Ethical issues should be interpreted broadly and may encompass, amongst other things, the involvement of human participants or remains, tissue or data in research, the use of animals, research that may result in damage to the environment, “dual use” research of concern and the use of sensitive economic, social or personal data. Relevant professional codes of practice and ethical guidance provided by professional bodies should be followed. Further guidance on managing the risks of research misuse can be found at: https://mrc.ukri.org/research/policies-and-guidance-for-researchers/managing-risks-of-research-misuse/

Research involving human participants or data within the social sciences that falls outside the UK Policy Framework for Health and Social Care Research, such as research which poses no clinical risk or harm to the research subjects, must meet the provisions and guidelines of the ESRC’s Research Ethics Framework at: https://esrc.ukri.org/files/funding/guidance-for-applicants/esrc-framework-for-research-ethics-2015/
What needs ethics approval?

Level 0: No application required
- Involves no human participants
- Involves no personal data
- Involves none of the points mentioned under Level 2
- You can still submit an ethics application if your funder / supervisor / … requires it

Level 1: Reviewed by one member
- Involves human participants or personal data
- Involves none of the points mentioned under Level 2
- Involves collecting *sensitive* personal data
- Issues with regards to data protection good practice (e.g. anonymisation and secure storage of personal data)
- No explicit participant consent (e.g. social media data)
- Significant potential for harm – physical or psychological
- Vulnerable participants (e.g. children, disabilities, stigmatised minorities)
- Targeting developing countries (incl. India, China)
- For more, see https://web.inf.ed.ac.uk/infweb/research/ethics-and-integrity/ethics-levels

Level 2: Reviewed by two members
- Involves none of the points mentioned under Level 2
- You can still submit an ethics application if your funder / supervisor / … requires it

For more, see https://web.inf.ed.ac.uk/infweb/research/ethics-and-integrity/ethics-levels
What needs ethics approval?

**Level 3: Reviewed by full committee**
- Involving extremely vulnerable populations
- Conducted in war zones
- Potentially serious implications for participant welfare

**Level 4: Escalated for review at College**
- Intention to observe an illegal activity
- Use of materials which are the subject of legal action against the University
What needs ethics approval?

• Consider a research project in your area, e.g.
  • Your Individual Project
  • An influential paper in your field
  • A hypothetical project
  • It has to have human participants or data

• Think about the research methods
  • Will you need existing data? What kind of data?
  • Will you collect new data?
  • Will you have human participants / users / data created by or about humans?
Things to consider: Human participants

• Are you collecting personal data?
  e.g. names, student numbers, email addresses, IP addresses, audio/video recordings…

• Are you collecting sensitive personal data?
  e.g. race, religion, political opinions, sexual orientation, …

• Do you comply with GDPR? (don’t know? take the training!)

• Can the participants understand their rights and provide informed consent? (e.g. are they aged 15 or older?)

• Conflicts of interest
Participant Information Sheet

- Who is conducting the study?
  That’s you!

- Who is responsible?
  That is your supervisor!

- Who can people ask if they have questions?
  That’s the Ethics panel of the School that has approved the study, or an external expert

- Can people stop and withdraw from the study at any time?
  The only correct answer is YES*

* until you have anonymised the data so that it would no longer be possible to identify the participant
Participant Information Sheet

• Why are you doing this study?
  For your PhD project. If your supervisor will also use the data for their research, you must say so, and you must explain what that research is.

• What will the study involve?
  Describe what they will be asked to do, and how long the study will take.

• What are the risks and benefits?
  „Furthering science“ is too vague.

• What will happen to their data?
  How will it be analysed? Where will it be presented? How will it be stored? Who will have access?
Things to consider: Data

• If you get data from other sources, do you have permission?
• Does your intended use comply with terms of use?

Relevant for all who work with speech corpora and language data!

• Treat any data carefully and confidentially
• Only collect and process the data you need
• Is it possible for people to be identified? What would be the harm?
Other things to consider

• If you are working with industry partners or academics outside Informatics, is there an agreement about their / your role?

• If (some of) your research takes place outside the UK, is there a requirement for ethics review in those countries?

• Who will benefit from the research? Will you make findings available to participants?
How do I apply?

https://web.inf.ed.ac.uk/infweb/research/ethics-and-integrity/ethics-procedure
How do I apply?

https://edinburghinformatics.eu.qualtrics.com/jfe/form/SV_7PvXNZJtMj4HAbk
How do I apply?

• Ask for advice beforehand, if unsure
• Email ethics-query@inf.ed.ac.uk if your question is not addressed in the FAQ
• Prepare, if relevant, Participant Information Sheet, Consent Form and Data Management Plan, by changing our templates
• Complete a practice ethics application and forward the completed form to your supervisor; only submit with their approval
What happens after I have applied?

- Decide if research requires Ethical approval (with PI if student)
- Submit ethics application form (Qualtrics) (with PI if student)
- Submit supporting documents to ethics-query@inf.ed.ac.uk (if prompted)
- Supporting documents & application merged into one RT ticket – requestors (student, PI, co-I) & metadata (AY, ID) added
- Ticket (application) assigned to one member of the Inf REC
- Edits / more info requested from applicant
- Additional Inf REC member notified if > Level 1. Application discussed
- Application questions brought to monthly full Inf REC meeting for review (standing item)
- Amendments to application
- Application approved/rejected
- Confirmation sent to applicant and relevant requestors
- Metadata (level, time, approval date) added. Ticket closed
- Inf REC escalation to CSE REC

Abbreviations:
- AY: academic year
- Co-I: Co-investigator
- CSE: College of Science & Engineering
- PI: principal investigator
- REC: research ethics committee

- Applicant
- Admin
- Inf REC
- CSE REC
- Optional
- Escalation
What happens after I have applied?

• Want to make changes? Email us and quote the reference number

• When recruiting participants, always state who has granted ethics approval and quote the reference number

• Application expected to cover the entirety of the project: one application per PhD project usually sufficient
  • Advise ethics committee of changes (e.g. new external partners, new risks) quoting the reference number instead of submitting a new application
Q&A

Your questions...?