

Project Ethics

Slides covering project ethics and blanket ethics policy – taken from a larger presentation on Computer Science UG/PGT projects.

Xiang Li

University of Bristol

THIS IS IMPORTANT.

**YOU WILL FACE FORMAL DISCIPLINARY ACTION
IF YOU GET THIS WRONG.**

Three ethics categories

All projects fall into one of three categories:

- Projects that do not require ethical approval at all, because they do not collect or process any relevant data.
- Projects that can be reviewed by your supervisor under "Ethics Application" (Blanket application), because they are judged to be low ethical risk.
- Projects that require full ethical review by the Faculty Research Ethics Committee (FREC).

When don't you need to worry?

The **only** projects that don't need to care about ethics are those that don't collect **any** data from **any** humans or animals.

This is **not** the same as "not running any experiments".

When don't you need to worry?

The **only** projects that don't need to care about ethics are those that don't collect **any** data from **any** humans or animals.

This is **not** the same as "not running any experiments".

For example, this means that **you don't**:

- Ask anyone (even friends or family) to try out your software;
- Take any photos of people as training data **including yourself**;
- Scrape any data from online forums or social media (e.g., Facebook, Reddit);
- Process existing anonymous data in a way that could de-anonymise it.

Probably less than half of projects fall into this category.

When don't you need to worry?

The **only** projects that don't need to care about ethics are those that don't collect **any** data from **any** humans or animals.

This is **not** the same as "not running any experiments".

For example, this means that **you don't**:

- Ask anyone (even friends or family) to try out your software;
- Take any photos of people as training data **including yourself**;
- Scrape any data from online forums or social media (e.g., Facebook, Reddit);
- Process existing anonymous data in a way that could de-anonymise it.

Probably less than half of projects fall into this category.

The philosophy of research ethics is to "build a fence around the law".

Acting ethically means more than just not hurting people. It means following the rules which will *force* you (and others) not to hurt people.

Examples: When don't you need to worry?

- Jean is doing a project in graph theory studying snarks. This will involve reviewing the literature and perhaps proving theoretical results or writing some code to generate snarks. The only experiments Jean will run involve testing and profiling her own code.

Examples: When don't you need to worry?

- Jean is doing a project in graph theory studying snarks. This will involve reviewing the literature and perhaps proving theoretical results or writing some code to generate snarks. The only experiments Jean will run involve testing and profiling her own code.
- Adam is doing a project in machine learning, and he is attempting to train a neural network to recognise different art styles and periods. In doing so, he will use a large data set of public domain images downloaded from the Internet, and perhaps one or two photos of his own pieces.

Examples: When don't you need to worry?

- Jean is doing a project in graph theory studying snarks. This will involve reviewing the literature and perhaps proving theoretical results or writing some code to generate snarks. The only experiments Jean will run involve testing and profiling her own code.
- Adam is doing a project in machine learning, and he is attempting to train a neural network to recognise different art styles and periods. In doing so, he will use a large data set of public domain images downloaded from the Internet, and perhaps one or two photos of his own pieces.
- Lisa is doing a project in FinTech and she aims to develop a theoretical and mathematical model for stock price prediction. This involves reviewing the literature, model development with assumptions, and proof. In such a case, her project does not require any ethics review as it does not involve data gathering from humans.

The blanket application

The ethics board has given **blanket** permission for students taking this unit to gather data in **limited** ways without needing to make a separate application.

This category covers projects which involve gathering data from humans (not from animals) or publicly available datasets and only under the following circumstances:

This is a summary — see the handbook for more details!

The blanket application

To use the blanket category, you should **not** gather data:

- from vulnerable populations (e.g. children, disabled people).
- about protected characteristics (e.g. race, religion, membership of a trade union).
- which is sensitive (e.g. sexual activity, criminal history, drug use).
- which is identifying (e.g. names, addresses).
- without full, explicit and informed consent (**no** data scraping).
In particular, projects which automatically scrape data from online forums or social media such as Facebook or Reddit are **not** covered by this category and must **make a full ethics application**.
- while tricking or deceiving participants in any way.
- in a way which risks physical or mental harm (including to yourself).

If you think your project is OK under the blanket application, then **confirm it with your supervisor**. You must also include enough evidence in your dissertation to show that you have followed these restrictions.

Examples: The blanket application

- Chen is developing neural networks using a publicly available dataset from Kaggle. The dataset is anonymous and there is a permissive license associated with the dataset.

Examples: The blanket application

- Chen is developing neural networks using a publicly available dataset from Kaggle. The dataset is anonymous and there is a permissive license associated with the dataset.
- Ayodya is working on machine vision algorithm for recognising emotions. She builds the model using publicly available dataset of images which have a permissive license or terms of use. As part of refining the core algorithm, she wants to get feedback from potential users. She asks a few of her friends to use the system as she watches and take notes. Afterwards, she asks them a few questions. She is careful to tell them in advance that she'll be observing them.

Examples: The blanket application

- Chen is developing neural networks using a publicly available dataset from Kaggle. The dataset is anonymous and there is a permissive license associated with the dataset.
- Ayodya is working on machine vision algorithm for recognising emotions. She builds the model using publicly available dataset of images which have a permissive license or terms of use. As part of refining the core algorithm, she wants to get feedback from potential users. She asks a few of her friends to use the system as she watches and take notes. Afterwards, she asks them a few questions. She is careful to tell them in advance that she'll be observing them.
- Timber is doing a project in FinTech and aims to use a large language model to predict firm performance. This project involves using public firm filings (e.g., 10-K firm annual reports, 10-Q firm quarterly reports) from the U.S. Securities and Exchange Commission (SEC), in which all companies, foreign and domestic, are required to file registration statements, periodic reports, and other forms electronically through the SEC EDGAR (Electronic Data Gathering, Analysis, and Retrieval) system.

Examples: The blanket application

- Chen is developing neural networks using a publicly available dataset from Kaggle. The dataset is anonymous and there is a permissive license associated with the dataset.
- Ayodya is working on machine vision algorithm for recognising emotions. She builds the model using publicly available dataset of images which have a permissive license or terms of use. As part of refining the core algorithm, she wants to get feedback from potential users. She asks a few of her friends to use the system as she watches and take notes. Afterwards, she asks them a few questions. She is careful to tell them in advance that she'll be observing them.
- Timber is doing a project in FinTech and aims to use a large language model to predict firm performance. This project involves using public firm filings (e.g., 10-K firm annual reports, 10-Q firm quarterly reports) from the U.S. Securities and Exchange Commission (SEC), in which all companies, foreign and domestic, are required to file registration statements, periodic reports, and other forms electronically through the SEC EDGAR (Electronic Data Gathering, Analysis, and Retrieval) system.
- Sabrina is doing a project in FinTech and will use deep neural networks for stock price prediction. She will download the public data on stock prices (e.g. Dow Jones Industrial Average – DJI, Apple Inc.) and financial performance from the Yahoo Finance website. These data are public, non-identifying, and non-sensitive. She will use these data to train the model and predict stock prices.

Projects requiring full ethics review by the FREC

All other projects fall into this category and must make a formal Stage 1 ethics application to the Faculty Research Ethics Committee.

This is itself a streamlined process – students apply online via a short form, and most applications will be approved within three weeks. If the committee identifies a cause for concern, then students may be asked to fill out a full Stage 2 application which addresses these concerns in more detail.

If, after a discussion with your supervisor, you decide that your project is in this category, **don't panic!**

The application process is not hard, involving only a short form, and typically if a project is “obviously harmless” but not covered by Blanket Application, then it will be approved.

Examples: Projects requiring full ethics review by the FREC

- Ruet is writing a mobile app to help fellow depression sufferers track their moods. When she has finished coding the app, she posts a link to Big White Wall (an anonymous support forum) asking for feedback. This would require a full ethics application since it involves asking about mental health and gathering data from a vulnerable population.

Examples: Projects requiring full ethics review by the FREC

- Ruet is writing a mobile app to help fellow depression sufferers track their moods. When she has finished coding the app, she posts a link to Big White Wall (an anonymous support forum) asking for feedback. This would require a full ethics application since it involves asking about mental health and gathering data from a vulnerable population.
- Johannes is doing a computer vision project in which he attempts to train a computer to recognise numbers on signs. As part of his test data, he walks through the department and takes photos of all the office doors. This would require a full ethics application, since it involves gathering information (namely office numbers) from participants without their consent.

Examples: Projects requiring full ethics review by the FREC

- Ruet is writing a mobile app to help fellow depression sufferers track their moods. When she has finished coding the app, she posts a link to Big White Wall (an anonymous support forum) asking for feedback. This would require a full ethics application since it involves asking about mental health and gathering data from a vulnerable population.
- Johannes is doing a computer vision project in which he attempts to train a computer to recognise numbers on signs. As part of his test data, he walks through the department and takes photos of all the office doors. This would require a full ethics application, since it involves gathering information (namely office numbers) from participants without their consent.
- Bill is doing a computational finance project on predicting stock market movement by analysing social media and plans to use the contents of r/wallstreetbets as training data. This would require a full ethics application, since it involves gathering information from every poster on r/wallstreetbets without their consent.

Examples: Projects requiring full ethics review by the FREC

- Ruet is writing a mobile app to help fellow depression sufferers track their moods. When she has finished coding the app, she posts a link to Big White Wall (an anonymous support forum) asking for feedback. This would require a full ethics application since it involves asking about mental health and gathering data from a vulnerable population.
- Johannes is doing a computer vision project in which he attempts to train a computer to recognise numbers on signs. As part of his test data, he walks through the department and takes photos of all the office doors. This would require a full ethics application, since it involves gathering information (namely office numbers) from participants without their consent.
- Bill is doing a computational finance project on predicting stock market movement by analysing social media and plans to use the contents of r/wallstreetbets as training data. This would require a full ethics application, since it involves gathering information from every poster on r/wallstreetbets without their consent.
- George is doing a FinTech project that aims to examine how the mood of financial markets, known as financial sentiment, impacts stock market dynamics through text analysis. He will scrape data, like financial news and investor posts, from social media like Facebook and X (Twitter) to analyse financial sentiment. This project requests a full application as it involves gathering users' information without their consent.

Ethical review

Perhaps 10-20% of projects will violate one or more of these restrictions.

If so, don't worry! In general, needing ethical review is **not** a reason to avoid doing a project. It's just something to factor into your planning.

You should work with your supervisor to make a Stage 1 ethics application to the FREC before collecting any data.

The application process is short, and you will **usually** hear back quickly. There can be delays though, so act now rather than later!