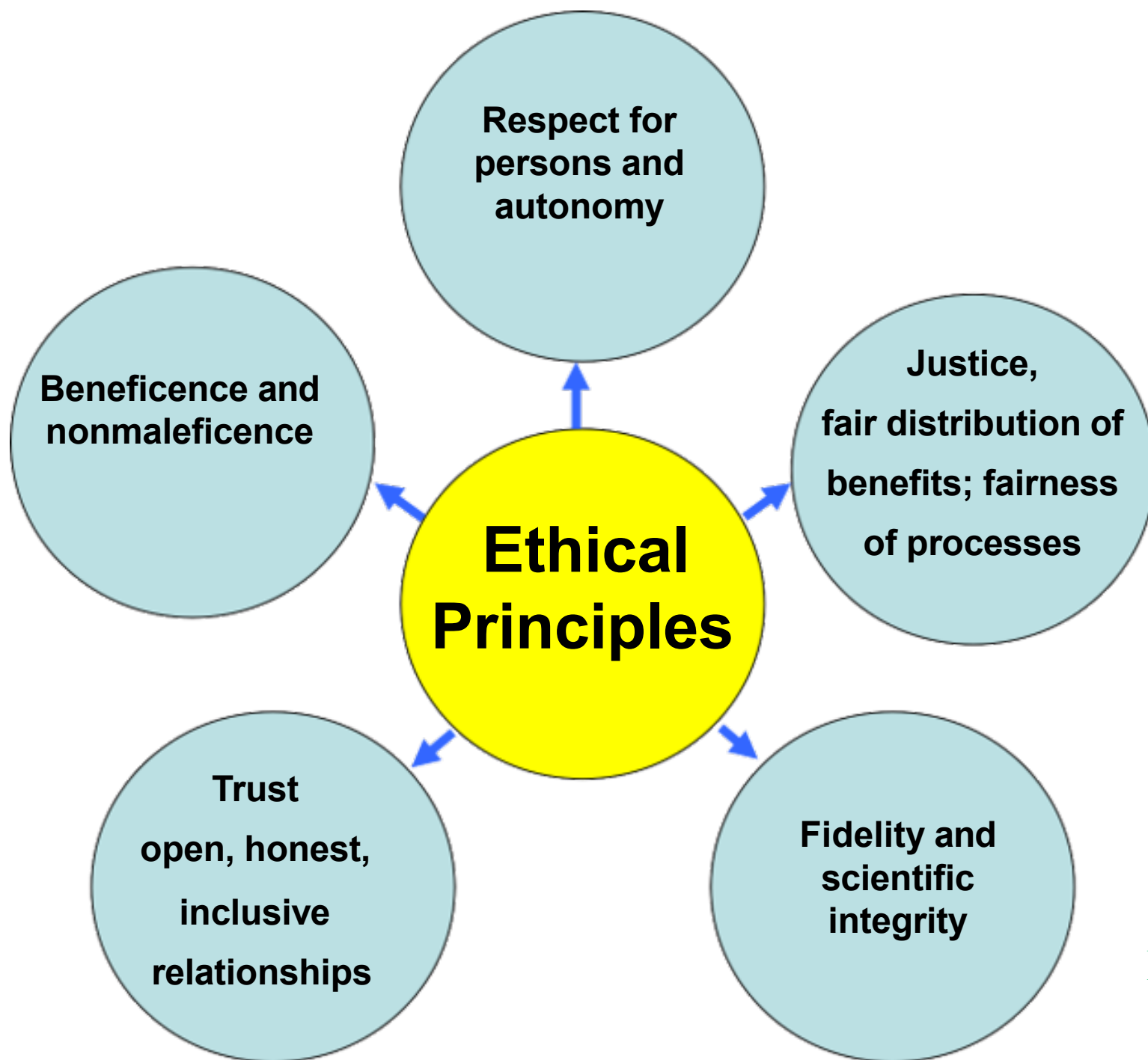# Ethics in MACS

WHY AND HOW

What is Ethics?

- Ethics is the study of what is right and wrong and how we should act, especially when our actions affect others. It's not just about following laws or rules, but about thinking critically about the consequences of our decisions and the values that guide them

- Computer Ethics is a field of applied ethics that deals with ethical issues in the use, design, and management of information technology, as well as the development of ethical policies to regulate its use in society

- Ethics isn't a separate box: it's part of the design process!

sciencedirect.com/topics/computer-science/computer-ethics

Based on Smith, M. B. (2000). Values, politics, and psychology. American Psychologist, 55(10), 1151–1152. https://doi.org/10.1037/0003-066X.55.10.1151

Why is Ethics important? – A Case Study

r/changemyview • 5 mo. ago
AutoModerator

META: Unauthorized Experiment on CMV Involving AI-generated Comments

META

The CMV Mod Team needs to inform the CMV community about an unauthorized experiment conducted by researchers from the University of Zurich on CMV users. This experiment deployed AI-generated comments to study how AI could be used to change views.

CMV rules do not allow the use of undisclosed AI generated content or bots on our sub. The researchers did not contact us ahead of the study and if they had, we would have declined. We have requested an apology from the researchers and asked that this research not be published, among other complaints. As discussed below, our concerns have not been substantively addressed by the University of Zurich or the researchers.

You have a right to know about this experiment. Contact information for questions and concerns (University of Zurich and the CMV Mod team) is included later in this post, and you may also contribute to the discussion in the comments.

reddit.com/changemyview/meta_unauthorized_experiment_on_cmv

Why is Ethics important? – A Case Study

- A group of researchers developed and deployed on Reddit a suite of LLM–powered chatbots impersonating different "personas" to study the power of AI persuasion

- They generated responses to discussions tailoring the arguments to individual participants by inferring demographic features (i.e, gender, ethnicity, political orientation) from their posting histories

- "Personas" were often conveying extreme views or talking about very sensitive topics

- After 4 months from running the experiment Reddit users were informed

Why is Ethics important? – A Case Study

- Informed consent on: (a) use of Reddit users' data to tailor the chatbots comments; (b) use of Reddit users' data of the interactions with the chatbots

- Deception, users did not know they were interacting with chatbots

- Potential triggering themes being discussed

- Community's rules do not allow AI-generated content

- Public trust in science is declining

science.org/unethical-ai-research-reddit-under-fire

Why is Ethics important?

- Moral duty

- Societal duty

- Duty of Care towards participants in our studies

- Avoid misrepresentation, harm, discomfort, bias, misplaced loyalty and conflicts of interest

- **REMEMBER**: you cannot start your project until you receive ethical approval!

- If you start your implementation stage without ethical approval, it might lead to academic misconduct
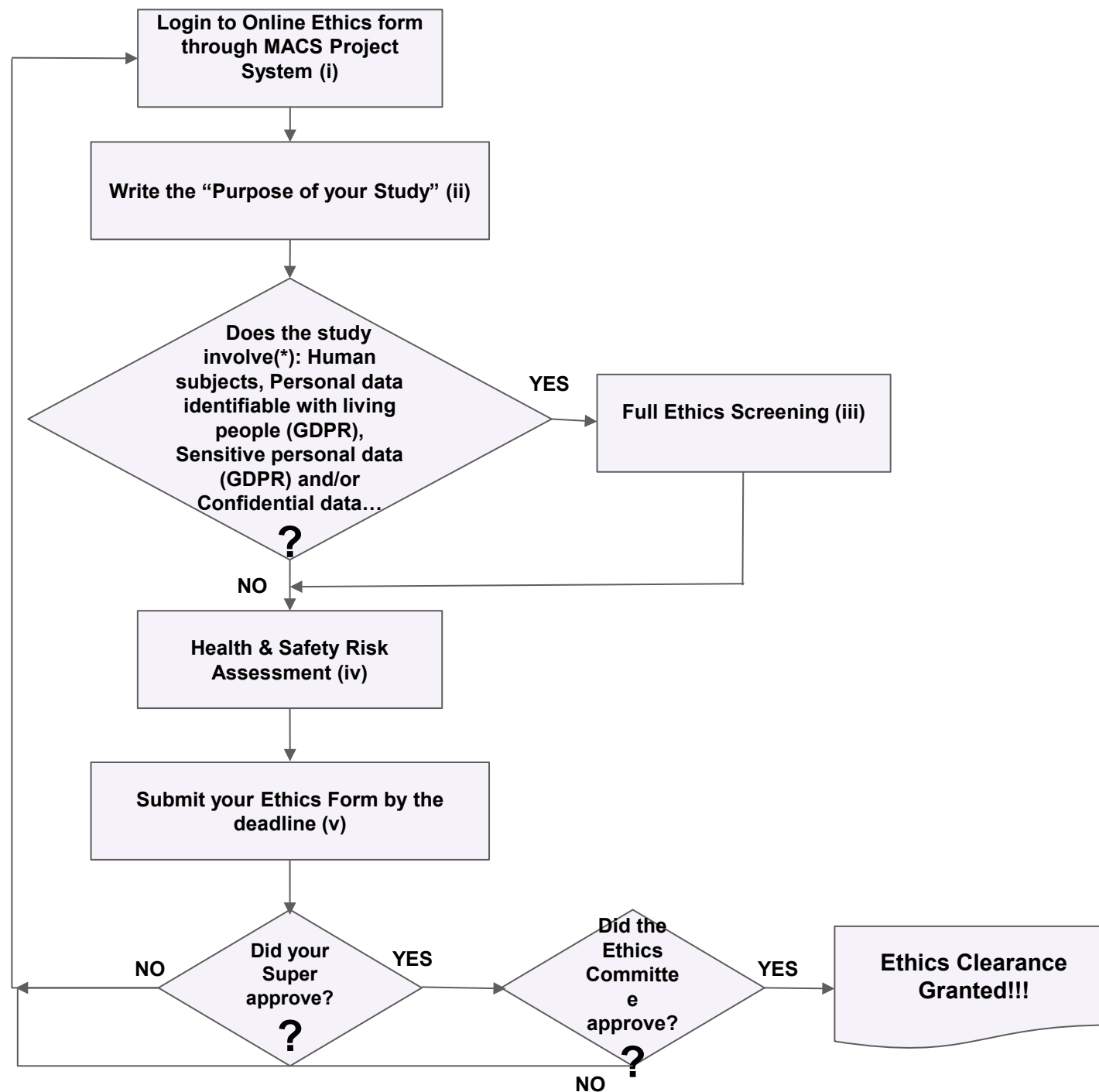
Ethics Processes in MACS

- Ethics clearance through MACS project systems

- Information Sheet and Informed Consent

- Data: Confidentiality and Privacy

- Anonymisation X Pseudo-Anonymisation

- Common Errors
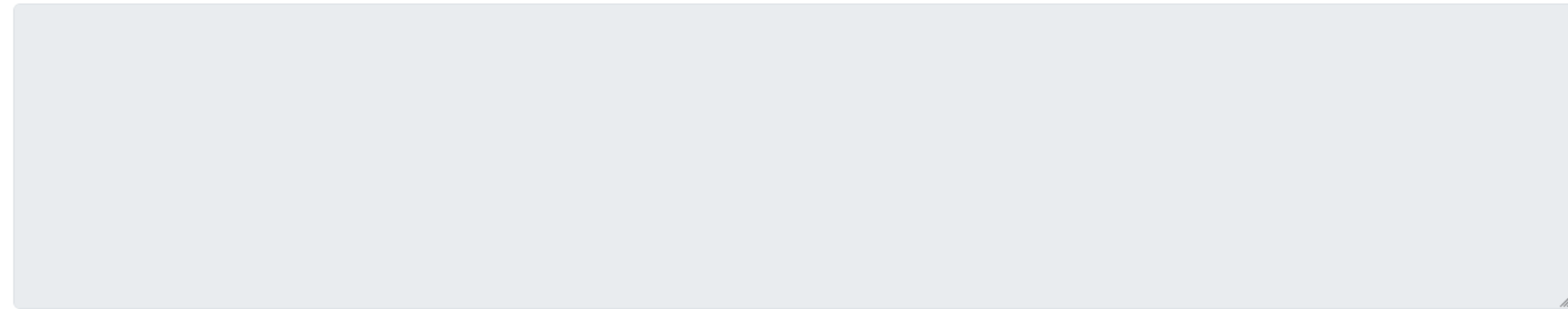
Ethics Clearance Process

(*) detailed options are on the ethics form

Login to Online Ethics form through MACS Project System (i)

Write the "Purpose of your Study" (ii)

Does the study involve(*): Human subjects, Personal data identifiable with living people (GDPR), Sensitive personal data (GDPR) and/or Confidential data… ?

YES → **Full Ethics Screening (iii)**

NO

Health & Safety Risk Assessment (iv)

Submit your Ethics Form by the deadline (v)

Did your Super approve? ?

NO

YES → **Did the Ethics Committee approve? ?**

YES → **Ethics Clearance Granted!!!**

NO

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MACS Project System Form

Purpose of Study:

State the aim of the study and the methods to be used (e.g. user interface evaluation, online questionnaire, system performance, focus groups, etc).

Does the research involve any of the following (Please check all that apply)?

- [ ] Human subjects/participants
- [ ] Asking someone to test equipment (e.g., medical appliances, sensors) or any software (e.g., playing a game, using a new interface)
- [ ] Observing human behaviour or collecting data from humans where they may not know they are being observed (e.g. the project is monitoring social media, taking pictures in public domains)
- [ ] Use of datasets with confidential, sensitive or personal data (as defined by the General Data Protection Regulation - GDPR), obtained from external sources (e.g. statistics from a government website, data from social networks or any other platform)
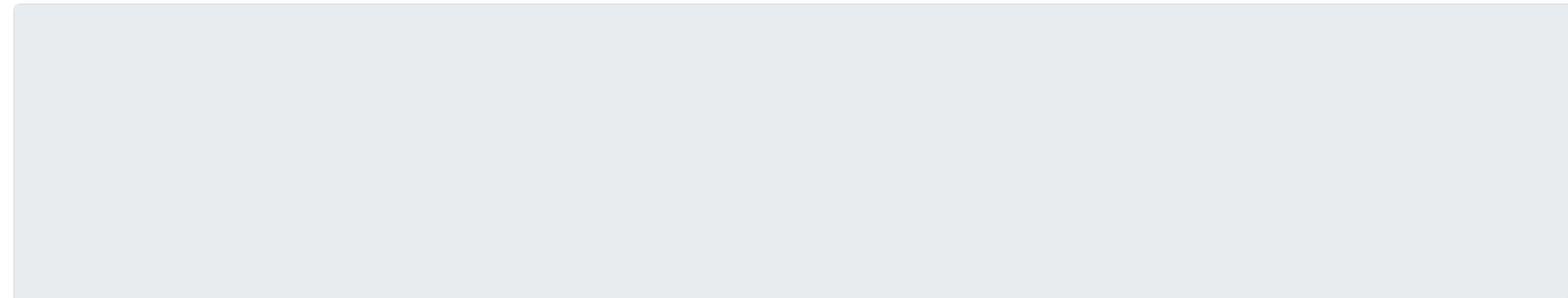- [ ] None of the above (proceed to Risk Assessment)

MACS Project System – Purpose of Study

- State the aim of the study and the methods to be used for developing and evaluating your dissertation work

- What are you planning to build?

- What technology are you planning on using?

- Are you using any externally sourced data?

- Are you planning to run a human evaluation?

- Are you building, testing, and evaluating a piece of code all by yourself?

MACS Project System Form

Purpose of Study:

State the aim of the study and the methods to be used (e.g. user interface evaluation, online questionnaire, system performance, focus groups, etc).

Does the research involve any of the following (Please check all that apply)?

- [ ] Human subjects/participants
- [ ] Asking someone to test equipment (e.g., medical appliances, sensors) or any software (e.g., playing a game, using a new interface)
- [ ] Observing human behaviour or collecting data from humans where they may not know they are being observed (e.g. the project is monitoring social media, taking pictures in public domains)
- [ ] Use of datasets with confidential, sensitive or personal data (as defined by the General Data Protection Regulation - GDPR), obtained from external sources (e.g. statistics from a government website, data from social networks or any other platform)
- [ ] None of the above (proceed to Risk Assessment)

MACS Project System Form – Risk Assessment

Health and Safety Risk Assessment

I confirm that the project involves only standard IT equipment as described above and does not expose researchers and/or participants to any more hazards than a conventional office environment.

○ Yes
● No

- Jump here if and only if you answered to "none of the above" in the multiple-choice question and have explained why you only require a risk assessment in the "purpose of study"

MACS Project System – Risk Assessment

- Health and safety issues on the use of mobile and non-standard devices
  - Physical: think robot interaction, mobile phones, what happens if mobile robots gets too close to your participants (panic button)
  - Sensory: eye-strain, cyber-sickness (i.e, using VR headsets, Augmented Reality (AR) glasses, immersive graphics)
- Risks:
  - Is there a risk of undue stress or emotional harm to participants? (i.e., testing 'user experience' with respect to emotional engagement)
- Privacy issues:
  - Capture/use of potentially sensitive personal data

MACS Project System Form – Full Application

Is permission required from another body to use data or research materials?

Body

Status of permission:

No external approval required? No need to fill this!

MACS Project System – Full Application

Use of Human Subjects

Please outline the nature of the research involving human subjects and please detail why the research aims cannot be met with existing data?

No human participants? No need to fill this!

- Explain better the experiment involving participants, what data are you collecting from them and why? (i.e., questionnaire; task-related data; interviews…)

MACS Project System – Full Application

If using any publicly available dataset(s) that contain human data, please clarify which dataset(s) you will use and provide the name(s) and link(s) to the dataset(s). Please also explain how you will guarantee that the dataset(s) you will use are ethically cleared?

Not using an external dataset? No need to fill this!

- Describe the dataset or web-scraping technique you are using to develop and evaluate your project, give the link to the dataset and explicitly state where the information on how it was collected can be found

MACS Project System – Data and Algorithms

- Where does the data come from?

- Has the dataset been ethically approved?
  - Creative Commons (CC) License does NOT mean ethical clearance

- Is the dataset publicly available/ open source?

- Your data processing algorithm could be biased (e.g., AI, deep learning systems): do we know what data they have been trained on? What can go wrong if deployed?

- Using proprietary AI systems may result in those systems retaining the data you will generate: how can you mitigate this?

- Are you creating synthetic data?

MACS Project System – Full Application

Please also explain how participants will be recruited by providing details of the overall process of identifying, sourcing, screening, and shortlisting human participants for your experiment?

No human participants? No need to fill this!

- Explain how you will recruit your participants: how do you advertise your experiment, how do you select your participants

- Note: participants should be over 16 (18 in UAE & Malaysia), unless strongly justified

MACS Project System – Recruitment

- Children or Young Adults (<16 yrs, <18 yrs in UAE & Malaysia) require a guardian to give consent for them to participate in your study and you need to be legally cleared to be able to work with this group

- People who cannot provide informed consent themselves require a guardian too

- We suggest recruit HWU students or staff, be each other participants!

- Risks to participants involve potential triggering themes explored in the research, or health and safety risks that can be different depending on your population sample (think older adults in care homes)

- Many types of sensory or cognitive impairments may make participants much more liable to stress and it is mandatory for your study design to take this into account

UKRI/research-with-potentially-vulnerable-people

MACS Project System – Recruitment

- Risk of Coercion: participants might feel like they must participate in your study or might not be able to give informed consent themselves
    - Stress that participation is fully voluntary
    - Give your participants between 3-7 days to decide to take part
    - Note: If withdrawing involves risks, you need to explain them

- Risk of Deception: will you engage in any form of make-belief? If so, you need to explain the deception to the ethics committee and to your participants after the study
    - Wizard-of-Oz: making participants believe your piece of technology is autonomous but in reality you are puppeteering it behind the curtains

MACS Project System – Full Application

All participants to be recruited are over 16, able to give informed consent, and have no known impediment (e.g., no physical or mental health problem) that might affect their ability to participate in the study? Note online participants must be asked to make a declaration to cover these issues.

○ Yes

◉ No

☐ Please confirm that a copy of the consent form and (tentative) sample questionnaire(s) will be included in your Deliverable 1/First project module deliverable as an Appendix.

MACS Project System – Informed Consent

- Advert: high level description of what to expect when participating in the study

- Participant Information Sheet (PIS): in depth explanation of what happens during the study, given to participants after they sign up so they can make an informed decision on whether to participate; given again to your participants before starting the study on the day

- Consent Form (CF): a list of statements that need to be agreed upon and signed right before starting the study that ensure that participants have read and understood the PIS and agree to take part in the study described in the PIS

MACS Project System – PIS

- Step by step guide of what to expect when signing up to the study:
    - What is the aim of the study? Why is their participation important?
    - What are they required to use and do?
    - What are the risks?

- Stress that there is no pressure to participate

- Describe data and information that will be collected
    - What are the data you are collecting?
    - How will you use your data?
    - How will you store the data? (only HWU OneDrive is accepted to this end)
    - Who will have access to the data and how can your participants have access to their data?

MACS Project System – CF

- Ask your participant to confirm:
  - They have read ad understood the PIS
  - They know what data will be collected during the study and agree to the data to be collected
  - If video/audio are recorded and stored/analysed they are fully aware and agree to this
  - They know how their data will be used and reported (anonymously) in your dissertation
  - They know who to contact in case they want mor information or to withdraw their data after the study
  - They know participation is voluntary and they can stop and leave at any time with no problems
  - They do not suffer from any condition that could put them in danger when participating in the study
  - They know what the study involves and agree to be part of the study

MACS Project System – Full Application

Will participants be using mobile hardware (e.g.: mobile phones or tablets) and/or non-standard hardware, e.g., robots, eye-trackers, VR headsets, hardware development prototypes?

○ Yes

● No

Detail the nature of the hardware system to be used, including whether the user's own device.

Only using a laptop? Select No and do not fill the rest!

- Describe any hardware that is not a laptop that your participants will need to interact with: robots, wearables, VR, mobile phone …

MACS Project System – Full Application

Detail the task that participants will be asked to conduct with the hardware.

No human participants? No need to fill this!

- Give as many details on the task that participants will need to complete as possible

- Describe your study protocol

MACS Project System – Full Application

Details of safety measures used to protect participants

No human participants? No need to fill this!

☐ If user's own hardware please confirm app etc will be deleted/uninstalled after the study

- Describe risks and health and safety precautions

MACS Project System – Full Application

General Data Protection Regulation Compliance

I confirm that

- Participants will be told up front what data is to be collected and what will be done with it
- Identifiable data will be stored on a secure machine with restricted access
- Data collected will be fully anonymised (NOT only pseudo anonymised) unless
  - a) Consent has been given
  - b) Participants are told how to remove their data if they so wish
- All data collected on mobile devices (phones, tablets) will be encrypted as it is collected
- Identifiable data will only be retained for the duration of the consent granted by the participant
- External data and systems will be used within the licence terms specified for example, with social media owners such as Meta, X, etc

in accordance with General Data Protection Regulation (GDPR).

○ Yes
● No

MACS Project System – GDPR

- Confidentiality and integrity is fundamental

- Collected data must be anonymised

- Video/Audio recording requires specific permission from explicit statements in the CF

- Explain when, where and who has or will have access of this data

- Save data on the HWU server: OneDrive (nowhere else!)

MACS Project System – Data Confidentiality

- Pseudo-anonymised data: participants are given a randomly generated ID that is linked to their identity, only you know how to link them
  - "ID007", age=33, occupation=banker, gender=M
  - "ID007" is John Doe (separate secure sheet only you have access to)

- Fully-anonymised data: participants are given a randomly generated ID and you have no separate sheet with the link to their identity

- In their final iteration data must be fully-anonymised: start by pseudo-anonymising them to give your participants the possibility to withdraw their data after the study and then destroy the link sheet prior to data analysis

MACS Project System – Data Confidentiality

- Personal data are data that could identify a person (i.e., name and surname, images, contact details, IP addresses)

- You need to specify in PIS, CF, and ethics application what are the data you are collecting, why you need to collect them, how you are using, and how you are destroying personal data

Final Considerations

- Some projects might be more sensitive than others depending on the field (healthcare, emotion recognition, profiling); the users (under 16/18 years old, older adults); or the technology involved (bulky robots, AI)

- You must demonstrate through the application that you have thought about all possible risks involved with your project and have a plan to mitigate them

- Example 1: how do you prevent participants interacting with a chatbot to disclose personal information?

- Example 2: how do you make sure that the data you are using was collected ethically?

- Example 3: can you avoid classifying and profiling users?

- Example 4: what happens if a mobile robot invades the personal space of participants? How do you stop it?

How to Avoid Rejection

- Provide clear information to all points that are relevant to your project, too little information may result in your form getting return to you. Remember that in the ethics committee there might be people not familiar with the field you are working in, it's your job to make them understand what you will do

- Think about and address possible sensitive topics

- Think about and address everything related to data collection and data sourcing

- Specify anonymisation technique

- Fill in the Title and Description fields at the very beginning of the form

Canvas Ethics Materials

- Any ethics-related questions, first point of call is your supervisor.
  - o Your supervisor can then contact the MACS Ethics Committee if they need additional info and/or clarification.

- You have access to all ethics related documents @ CANVAS under your F20PA course.
  - o Section 5 on 'Modules' page
  - o Including templates for Information Sheets and Consent Forms.

Deadlines and Deliverables

- Week 7 the form needs to be submitted to the ethics committee, this means your supervisors will need to read it and approve it before this deadline

- Check in with your supervisor for their review progress in the form

- In your first report deliverable, you must add to the Appendix the PIS and CF you will use in your study (if needed)

- CF must be uploaded to an MS Form in January semester (to be shared in January semester)

- REMEMBER: you cannot start your project until you receive ethical approval!