### FWO DMP Template - Flemish Standard Data Management Plan

### **Version KU Leuven**

Project supervisors (from application round 2018 onwards) and fellows (from application round 2020 onwards) will, upon being awarded their project or fellowship, be invited to develop their answers to the data management related questions into a DMP. The FWO expects a **completed DMP no later than 6 months after the official start date** of the project or fellowship. The DMP should not be submitted to FWO but to the research co-ordination office of the host institute; FWO may request the DMP in a random check.

At the end of the project, the **final version of the DMP** has to be added to the final report of the project; this should be submitted to FWO by the supervisor-spokesperson through FWO's e-portal. This DMP may of course have been updated since its first version. The DMP is an element in the final evaluation of the project by the relevant expert panel. Both the DMP submitted within the first 6 months after the start date and the final DMP may use this template.

The DMP template used by the Research Foundation Flanders (FWO) corresponds with the Flemish Standard Data Management Plan. This Flemish Standard DMP was developed by the Flemish Research Data Network (FRDN) Task Force DMP which comprises representatives of all Flemish funders and research institutions. This is a standardized DMP template based on the previous FWO template that contains the core requirements for data management planning. To increase understanding and facilitate completion of the DMP, a standardized **glossary** of definitions and abbreviations is available via the following link.

	1. General Project Information
Name Grant Holder & ORCID	Ann Rousseau http://orcid.org/0000-0002-7086-9938
Contributor name(s) (+ ORCID) & roles	Ann Rousseau – main researcher
Project number <sup>1</sup> & title	1274824N-7029 - Adolescents' processing of and response to incidentally encountered social media content – Differentiating between polarizing and depolarizing incidental social media effects.
Funder(s) GrantID <sup>2</sup>	
Affiliation(s)	X KU Leuven
	☐ Universiteit Antwerpen
	☐ Universiteit Gent
	☐ Universiteit Hasselt
	□ Vrije Universiteit Brussel
	□ Other:
	ROR identifier KU Leuven: 05f950310

<sup>&</sup>lt;sup>1</sup> "Project number" refers to the institutional project number. This question is optional. Applicants can only provide one project number.

<sup>&</sup>lt;sup>2</sup> Funder(s) GrantID refers to the number of the DMP at the funder(s), here one can specify multiple GrantIDs if multiple funding sources were used.

Social media platforms have been argued to facilitate polarization processes, as they allow people to cocoon themselves with like-minded messages, thereby creating echo chambers in which exposure to attitude-incongruent information is minimal and existing attitudes tend to be reinforced. At the same time, however, the abundance of news and user-generated content on social media makes it increasingly likely that individuals incidentally encounter information without actively searching for it. Such incidental exposure (IE) may operate as an antecedent to more cross-cutting media diets and can create opportunities for initially uninterested audiences to encounter and engage with news, potentially diminishing existing knowledge and engagement gaps. The idea that social media can facilitate cross-cutting exposure and mobilize issue-engagement among uninterested users runs counter to the idea that social media facilitate and contribute to polarization. To date, no scholarly consensus exists as to whether IE can increase ideological diversity and in doing so contribute to depolarized audiences. Therefore, the current project aims to a/ distinguish different types of IE and explore conditions under which they result in attitude-discrepant vs. congruent climate exposure and b/examine whether incidentally encountered attitude-discrepant/congruent climate content results in polarizing or depolarizing outcomes, paying specific attention to the mediating role of cognitive response states.

### 2. Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data <sup>3</sup>.

				ONLY FOR DIGITAL DATA	ONLY FOR DIGITAL DATA	ONLY FOR DIGITAL DATA	ONLY FOR PHYSICAL DATA
Dataset Name	Description	New or Reused	Digital or Physical	Digital Data Type	Digital Data Format	Digital Data Volume (MB, GB, TB)	Physical Volume
Experimental study_climat e IE	Dataset of experimental study on the impact of incidental IE on climate change learning and engagement outcomes.	<ul><li>☑ Generate new data</li><li>☐ Reuse existing data</li></ul>	⊠ Digital □ Physical	☐ Audiovisual ☐ Images ☐ Sound ☑ Numerical ☐ Textual ☐ Model ☐ Software ☐ Other:	SPSS	<pre></pre>	
Topic list_focus group interviews	Topic list that contains topics and questions to ask during the focus group interviews	<ul><li>☑ Generate new data</li><li>☐ Reuse existing data</li></ul>	⊠ Digital □ Physical	☐ Audiovisual ☐ Images ☐ Sound ☐ Numerical ☑ Textual ☐ Model ☐ Software ☐ Other:	pdf		
Audio recordings_fo cus group	Audio recordings made during the	<ul><li>☑ Generate new data</li><li>☐ Reuse existing</li></ul>	⊠ Digital ☐ Physical	<ul><li>☐ Audiovisual</li><li>☐ Images</li><li>☒ Sound</li></ul>	Мр3	⊠ < 1 GB □ < 100 GB □ < 1 TB	

<sup>&</sup>lt;sup>3</sup> Add rows for each dataset you want to describe.

interviews	focus group	data		☐ Numerical		□ < 5 TB
	interviews			☐ Textual		□ > 5 TB
				☐ Model		□ NA
				☐ Software		
				☐ Other:		
Transcript_fo	Transcripts of	☑ Generate new	□ Digital	☐ Audiovisual	pdf	⊠ < 1 GB
cus group	the focus group	data	☐ Physical	☐ Images		□ < 100 GB
interviews	interviews	☐ Reuse existing		☐ Sound		□ < 1 TB
		data		☐ Numerical		□ < 5 TB
						□ > 5 TB
				□ Model		□NA
				☐ Software		
				☐ Other:		
Pilot	Dataset of	□ Generate new	□ Digital	☐ Audiovisual	SPSS	⊠ < 1 GB
study cross-	cross-sectional	data	☐ Physical	☐ Images		□ < 100 GB
sectional data	survey used to	☐ Reuse existing		☐ Sound		□ < 1 TB
	validate new IE	data				□ < 5 TB
	measures			☐ Textual		□ > 5 TB
				☐ Model		□NA
				☐ Software		
				☐ Other:		
EMA_climate	Dataset	☑ Generate new	□ Digital	☐ Audiovisual	SPSS	⊠ < 1 GB
IE _	containing	data	☐ Physical	☐ Images		□ < 100 GB
	ecological	☐ Reuse existing		☐ Sound		□ < 1 TB
	momentary	data				□ < 5 TB
	assessment data			☐ Textual		□ > 5 TB
	used to			☐ Model		□NA
	measure			☐ Software		
	frequency and			☐ Other:		

Longitudinal study_longitu dinal survey	type of daily encounters with pro- and counter- attitudinal IE content  Dataset of longitudinal survey used to measure bidirectional relations between IE and climate change outcomes	☑ Generate new data ☐ Reuse existing data	☐ Physical	☐ Audiovisual ☐ Images ☐ Sound ☑ Numerical ☐ Textual ☐ Model ☐ Software ☐ Other:	SPSS	
GUIDANCE: The data description forms the basis of your entire DMP, so make sure it is detailed and complete. It includes digital and physical data and encompasses the whole spectrum ranging from raw data to processed and analysed data including analysis scripts and code. Physical data are all materials that need proper management because they are valuable, difficult to replace and/or ethical issues are associated. Materials that are not considered data in an RDM context include your own manuscripts, theses and presentations; documentation is an integral part of your datasets and should described under documentation/metadata.  RDM Guidance on data						
source, preferal	ting data, please spoly by using a persis OI, Handle, URL etc type.	tent				

Yes, human subject data; provide SMEC or EC approval number: G-2023-7389-R4(AMD)
Yes, animal data; provide ECD reference number:
Yes, dual use; provide approval number:
l No
dditional information: In all mention studies above, we will make use of human subject data
emographic info, personality, pro-environmental behaviour and attitudes, social media use).
rivacy Registry Reference: ethical approval has been asked and received from the Ethical Commission of J Leuven (SMEC) for the experimental study (G-2023-6433) the focus group interviews (G-2023-7389-4(AMD)) and the cross-sectional pilot study (G-2023-7389-R4(AMD)).
or all other studies (the EMA study and the longitudinal survey) ethical approval will be asked from the
hical Commission of KU Leuven (SMEC) in the near future.
Yes (provide PRET G-number or EC S-number below)
No
dditional information: In all mentioned studies above, personal data of participants will be collected in be form of socio-demographical data (e.g. gender, age) and background information of the participants .g. email addresses). This personal information will be stored separately and all datasets will be
seudonymized.

<sup>&</sup>lt;sup>4</sup> See Glossary Flemish Standard Data Management Plan

Does your work have potential for commercial	☐ Yes
valorization (e.g. tech transfer, for example spin-	⊠ No
offs, commercial exploitation,)?	If yes, please comment:
If so, please comment per dataset or data type	
where appropriate.	
Do existing 3rd party agreements restrict	☐ Yes
exploitation or dissemination of the data you	⊠ No
(re)use (e.g. Material/Data transfer agreements,	If yes, please explain:
research collaboration agreements)?	
If so, please explain to what data they relate and	
what restrictions are in place.	
Are there any other legal issues, such as	☐ Yes
intellectual property rights and ownership, to be	⊠ No
managed related to the data you (re)use?	If yes, please explain:
If so, please explain to what data they relate and	
which restrictions will be asserted.	

## 3. Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep **data understandable and usable**, for yourself and others, now and in the future (e.g. in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, Codebook.tsv etc. where this information is recorded).

RDM guidance on documentation and metadata.

The main researcher will collect all data and group the different data files in het secured KU Leuven folder. For each study, a separate folder will be created.

Per folder, and thus for each study, the main researcher will upload the raw dataset as well as the analytical dataset (the dataset that will be used to conduct analyses and test hypotheses). With respect to the analytical dataset, the main researcher will –for each study –upload a word document, explaining how the dataset was cleaned (for example, removal of participants that failed the attention check).

Regarding understandability and re-use, codes will be well-explained within each dataset. Specifically, with respect to the SPSS data files, each code will be clearly labelled, meaning that we will give a clear description of the item that was measured and name it accordingly. Uploaded dataset and interview guides will be in English to enable cross-cultural re-use.

All data transformations and analyses performed on these datasets will be explained in a document and stored in a safe folder. Datasets in OSF will be accompanied by metadata so datasets are understandable for later re-use.

Will a metadata standard be used to make it easier to find and reuse the data?

If so, please specify which metadata standard will be used. If not, please specify which metadata will be created to make the data easier to find and reuse.

REPOSITORIES COULD ASK TO DELIVER METADATA IN A CERTAIN FORMAT, WITH SPECIFIED ONTOLOGIES AND VOCABULARIES, I.E. STANDARD LISTS WITH UNIQUE IDENTIFIERS.

☐ Yes

 $\boxtimes$  No

If yes, please specify (where appropriate per dataset or data type) which metadata standard will be used:

If no, please specify (where appropriate per dataset or data type) which metadata will be created:

For the focus group study a metadatafile will be created including the semi-structured interview guide and the context specific information in which the focus group interviews were conducted.

For the ecological momentary assessment study (EMA) a metadatafile (with compiled data) will be created in the following steps: 1) a unique identification code is given to each participant; 2) participants answers across consecutive days will be linked in diary research through their unique identification codes. After participants have been linked, the unique identification codes will be deleted and the metadatafile will no longer contain personal information and will be pseudonymized.

For the longitudinal survey study a metadatafile (with compiled data) will be created in the following steps: 1) a unique identification code will be given to each participant; 2) participants' answers across waves will be linked through their unique identification codes. After participants have been linked, the unique identification codes will be deleted and the metadatafile will no longer contain personal information and will be pseudonymized.

For the experimental study a detailed explanation will be given for the experimental protocol so this methodology can be used again. This explanation includes detailed information on the creation of the stimuli material, the manipulation check used to validate the stimuli material, and the circumstances in which the experiment was conducted.

### 4. Data Storage & Back-up during the Research Project

Where will the data be stored?	Shared network drive (J-drive)
	□ Personal network drive (I-drive)
Consult the interactive KU Leuven storage guide to	☐ OneDrive (KU Leuven)
find the most suitable storage solution for your data.	☐ Sharepoint online
	☐ Sharepoint on-premis
	☐ Large Volume Storage
	☐ Digital Vault
	□ Other:
How will the data be backed up?	☑ Standard back-up provided by KU Leuven ICTS for my storage solution
·	☐ Personal back-ups I make (specify)
What storage and backup procedures will be in place to	☐ Other (specify)
PREVENT DATA LOSS?	
Is there currently sufficient storage & backup	⊠ Yes
capacity during the project? If yes, specify	□ No
concisely. If no or insufficient storage or backup	
capacities are available, then explain how this	If no, please specify:
will be taken care of.	
How will you ensure that the data are securely	The secure central storage infrastructure of KU Leuven has very strict rules of access. Access is personal to
stored and not accessed or modified by	KU Leuven employees (who received access) and can only be obtained through the password protected
unauthorized persons?	intranet or through VPN. The ICTS of KU Leuven guarantees the safety and ensures to update this platform
	to be resilient to cyber-attacks. The personal data will only be used by the primary researchers of KU
CLEARLY DESCRIBE THE MEASURES (IN TERMS OF PHYSICAL SECURITY,	Leuven (i.e., main researcher) and will not be distributed to anyone else. This personal data will be stored
NETWORK SECURITY, AND SECURITY OF COMPUTER SYSTEMS AND	separately from the pseudonymized data sets
FILES) THAT WILL BE TAKEN TO ENSURE THAT STORED AND TRANSFERRED DATA ARE SAFE.	
Guidance on security for research data	

What are the expected costs for data storage and backup during the research project? How will these costs be covered?

There are no additional costs for this project. Costs are covered by the research group. The I- and J-drive can be accessed for this project

#### 5. Data Preservation after the end of the Research Project Which data will be retained for at least five ☑ All data will be preserved for 10 years according to KU Leuven RDM policy ☐ All data will be preserved for 25 years according to CTC recommendations for clinical trials with years (or longer, in agreement with other medicinal products for human use and for clinical experiments on humans retention policies that are applicable) after the ☐ Certain data cannot be kept for 10 years (explain): All email addresses, dates of birth, ages, and other end of the project? In case some data cannot be information that can identify a person will be deleted after completion of the data collection, and before preserved, clearly state the reasons for this disseminating the results of the study. (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...). Guidance on data preservation Where will these data be archived (stored and ☐ KU Leuven RDR curated for the long-term)? ☐ Large Volume Storage (longterm for large volumes) Shared network drive (J-drive) Dedicated data repositories are often the best place ☑ Other (specifiy): Data will remain stored on the KULeuven central network drives as well as on the to preserve your data. Data not suitable for repository of OSF where the files will be, in line with open access guidelines, stay available in the long preservation in a repository can be stored using a KU term. Leuven storage solution, consult the interactive KU Leuven storage guide.

What are the expected costs for data	Cost are covered by the research group.
preservation during the expected retention	
period? How will these costs be covered?	

# 6. Data Sharing and Reuse

Will the data (or part of the data) be made available for reuse after/during the project? Please explain per dataset or data type which data will be made available.  Note that 'available' does not necessarily mean that the data set becomes openly available, conditions for access and use may apply. Availability in this question thus entails	<ul> <li>✓ Yes, as open data</li> <li>☐ Yes, as embargoed data (temporary restriction)</li> <li>☐ Yes, as restricted data (upon approval, or institutional access only)</li> <li>☐ No (closed access)</li> <li>☒ Other, please specify:</li> <li>Only anonymised data of all studies will be made available for reuse. Identification data will be deleted from these sub-datasets, so no full datasets will be made available. All identification data will only be</li> </ul>
HTTPS://WIKI.SURFNET.NL/DISPLAY/STANDARDS/INFO-EU-REPO/#INF OEUREPO-ACCESSRIGHTS	made available to the main researcher.  For the focus group interviews, the transcripts of the focus group interviews will be made available.  However, all information that can identify a person will be deleted before making these transcripts public.  For the EMA study, the exported data of the responses to the daily questionnaires will be made available.  All information that can identify persons will be deleted before making this data public.
	For the experimental study, the exported numeric data of the experiment will be made available. All information that can identify persons will be deleted before making this data public.  For the survey studies, the exported data of the merged responses across three waves (survey wave 1, survey wave 2, survey wave 3) will be made available. All information that can identify persons will be deleted before making this data public.
	For all studies, participants will be informed about the public availability of the data in the informed consent forms.

If access is restricted, please specify who will be able to access the data and under what conditions.	Only the main researcher will have access to the full datasets. The general public will only have access to the datasets without identifiable information.
Are there any factors that restrict or prevent the	
sharing of (some of) the data (e.g. as defined in	☐ Yes, intellectual property rights
an agreement with a 3rd party, legal	<ul><li>✓ Yes, ethical aspects</li><li>✓ Yes, aspects of dual use</li></ul>
restrictions)? Please explain per dataset or data type where appropriate.	☐ Yes, other
type where appropriate.	
	If yes, please specify: Identification data of the participants will never be shared.
Where will the data be made available?	☐ KU Leuven RDR
If already known, please provide a repository	☐ Other data repository (specify)
per dataset or data type.	☐ Other (specify)
	All anonymized datasets will be made available in the open access repository of OSF. Following
	international standards, the research should be available to the international community who are not
	familiar with the new RDR
When will the data be made available?	☐ Upon publication of research results
	☐ Specific date (specify)
	☐ Other (specify)

Which data usage licenses are you going to provide? If none, please explain why.	<ul><li>     □ CC-BY 4.0 (data)</li><li>     □ Data Transfer Agreement (restricted data)</li></ul>
provide: if florie, please explain wity.	
A DATA USAGE LICENSE INDICATES WHETHER THE DATA CAN BE REUSED OR NOT AND UNDER WHAT CONDITIONS. IF NO LICENCE IS GRANTED, THE DATA ARE IN A GREY ZONE AND CANNOT BE LEGALLY REUSED. DO NOTE THAT YOU MAY ONLY RELEASE DATA UNDER A LICENCE CHOSEN BY YOURSELF IF IT DOES NOT ALREADY FALL UNDER ANOTHER LICENCE THAT MIGHT PROHIBIT THAT.  Check the RDR guidance on licences for data and software sources code or consult the License selector tool to help you choose.	☐ MIT licence (code) ☐ GNU GPL-3.0 (code) ☐ Other (specify)
to help you choose.	
Do you intend to add a PID/DOI/accession number to your dataset(s)? If already available, please provide it here.	<ul><li> ☑ Yes, a PID will be added upon deposit in a data repository </li><li> ☐ My dataset already has a PID </li><li> ☐ No </li></ul>
INDICATE WHETHER YOU INTEND TO ADD A PERSISTENT AND UNIQUE IDENTIFIER IN ORDER TO IDENTIFY AND RETRIEVE THE DATA.	
What are the expected costs for data sharing? How will these costs be covered?	None.

7. Responsibilities	
Who will manage data documentation and	The main researcher (Ann Rousseau)
metadata during the research project?	
Who will manage data storage and backup	The main researcher (Ann Rousseau)
during the research project?	
Who will manage data preservation and	The main researcher (Ann Rousseau)
sharing?	
Who will update and implement this DMP?	The main researcher (Ann Rousseau)