## Plan Overview

A Data Management Plan created using DeiC DMP

Title: Consumer Practices in a Circular Society

Creator: Mubarik Kassim Rabiu

Principal Investigator: Mubarik Kassim Rabiu

Affiliation: Danmarks Tekniske Universitet / Technical University of Denmark

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ORCID iD: 000-0001-9186-8072

## Project abstract:

The strategies and principles of Circular Economy (CE) have gained much attention and can be considered a widely accepted vision of a more climate neutral and resilient economic future. However, the debate is characterized by the dominance of technical and market-based solutions at the expense of the sociocultural dimensions of production and consumption. Although a recent review by Alejandro and his colleagues (2020), found a rising consideration of social aspectsin CE research, there is still need of empirical research on the evolution of social practices and the socio-material pre-conditions of circular practices. My research project aims at examining social practices of consumers within transitions towards CE and to focus on the material arrangements that prefigure the adoption and appropriation of circular economy principles in everyday lives. The main objectives of the research projects are as follows:

- To provide an overview of circular consumer practices in the literature.
- To conduct experiments with consumers to understand the everyday practices within which plastic is used and possible attempts to live without plastic.
- Conduct an MFA of case examples of grassroots social innovations in plastic use to assess how this can limit the overall impact of
  plastic use and identify critical hotspots and barriers

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# **Consumer Practices in a Circular Society - Initial DMP**

### **Data summary**

Provide a summary of the data addressing the following issues:

- State the purpose of the data collection/generation
- Explain the relation to the objectives of the project
- Specify the types and formats of data generated/collected
- Specify if existing data is being re-used (if any)
- Specify the origin of the data
- State the expected size of the data (if known)
- Outline the data utility: to whom will it be useful

#### State the purpose of the data collection/generation

The main purpose of data collection in this study is to investigate consumer practices a circular economy, focusing on the use of plastics

#### Explain the relation to the objectives of the project

The data collection is directly related to the objectives of the project as it provides the empirical basis for exploring consumer practices in the context of a circular economy.

#### Specify the types and formats of data generated/collected

Data will include a wide range of qualitative sources, including in-depth interviews, participant observation and ethnographic field notes. In addition, quantitative data in the form of surveys and consumption diaries are used to complement the qualitative findings

- Audio files with participants speech (.mp3)
- Diary recording from participants (.docs)
- Survey data (.xls)

#### Specify if existing data is being re-used (if any)

While the focus is on the original data collection, a complementary aspect of the research involves consulting existing academic literature and reports on consumer practices, circular economy initiatives and sustainable consumption patterns. This secondary data serves as a contextual backdrop against which the primary data can be analysed and interpreted.

#### State the expected size of the data (if known)

The exact size of the dataset will depend on the number of participants and the amount of data generated.

#### Outline the data utility: to whom will it be useful

The data generated in this study will be relevant to a wide range of stakeholders. First, researchers in the field of sustainable consumption, circular economy and social practise theory will benefit from the empirical findings and methodological approaches. In addition, policy makers, environmental groups and industry representatives who want to develop and implement strategies to reduce single-use plastic consumption will benefit from the nuanced understanding of consumer practices.

#### **FAIR** data

### 2.1 Making data findable, including provisions for metadata:

- Outline the discoverability of data (metadata provision).
- Outline the identifiability of data and refer to standard identification mechanism. Do you make use of persistent and unique identifiers such as Digital Object Identifiers?
- Outline naming conventions used.
- Outline the approach towards search keyword.
- Outline the approach for clear versioning.
- Specify standards for metadata creation (if any). If there are no standards in your discipline describe what metadata will be created and how.

### Outline the discoverability of data (metadata provision)

Metadata will be made available and discoverable through the DDI-Lifecycle designed to document and manage data across the entire life cycle.

Outline the identifiability of data and refer to standard identification mechanism. Do you make use of persistent and unique identifiers such as Digital Object Identifiers?

To ensure the identifiability of the data, persistent and unique identifiers, such as Digital Object Identifiers (DOIs), will be assigned to each dataset.

### Outline naming conventions used.

The data will be named in accordance with DDI-Lifecycle requirement

### Outline the approach towards search keyword.

These keywords will encompass relevant terminology from the fields of sustainable consumption, circular economy, and social practice theory. Additionally, controlled vocabulary terms from established ontologies in these domains will be utilized to ensure semantic coherence.

### Outline the approach for clear versioning.

Version control will be implemented to track any modifications or updates to the datasets. A clear versioning system, in accordance to DDI-Lifecycle, will be adopted

## Specify standards for metadata creation (if any). If there are no standards in your discipline describe what metadata will be created and how.

The metadata creation process will adhere to established standards within the discipline. Specifically, the Data Documentation Initiative (DDI) framework will serve as a foundational guideline for metadata creation. This framework provides a comprehensive and widely recognized schema for documenting and describing social science data.

### 2.2 Making data openly accessible

- · Specify which data will be made openly available. If some data is kept closed provide rationale for doing so.
- Specify how the data will be made available.
- Specify what methods or software tools are needed to access the data? Is documentation about the software needed to access the data included? Is it possible to include the relevant software (e.g. in open source code)? Specify where the data and associated metadata, documentation and code are deposited.
- . Specify how access will be provided in case there are any restrictions.

A subset of the data generated in this study will be made openly accessible to the research community and interested stakeholders. This includes aggregated and anonymized quantitative survey data, devoid of any personally identifiable information, as well as thematic summaries from qualitative interviews, ensuring the confidentiality and privacy of participants. The openly accessible data will be hosted on DDI-Lifecycle. To facilitate access, comprehensive documentation detailing the structure, variables, and contextual information of the datasets will be provided alongside the data files. Additionally, any specialized software tools necessary for data processing or analysis will be openly available, with relevant code and scripts documented in a repository accompanying the data. The data, associated metadata, documentation, and code will be deposited in compliance with established data management protocols, ensuring long-term accessibility and preservation. In cases where certain data must remain restricted due to ethical or legal considerations, a controlled access procedure will be implemented, with interested parties required to submit requests outlining their intended use and adherence to ethical guidelines before gaining access

#### 2.3 Making data interoperable:

- Assess the interoperability of your data. Specify what data and metadata vocabularies, standards or methodologies you will follow to facilitate interoperability.
- Specify whether you will be using standard vocabulary for all data types present in your data set, to allow inter-disciplinary interoperability. If not, will you provide mapping to more commonly used ontologies?

To ensure seamless integration and compatibility with broader research contexts, standardized data and metadata vocabularies will be employed. Specifically, the DDI framework will be used for structuring and describing the data, ensuring a consistent and universally recognized schema. Additionally, standard vocabularies and ontologies within the domains of sustainable consumption, circular economy, and social practice theory will be adhered to, enabling inter-disciplinary interoperability. In cases where specialized ontologies are utilized, comprehensive mappings to more commonly used ontologies will be provided to facilitate broader accessibility and understanding across diverse research fields. This concerted effort toward interoperability aims to enhance the potential for cross-disciplinary insights and collaboration, ultimately contributing to a more holistic understanding of consumer practices in the context of a circular economy.

#### 2.4 Increase data re-use (through clarifying licenses):

- . Specify how the data will be licensed to permit the widest reuse possible.
- Specify when the data will be made available for re-use. If applicable, specify why and for what period a data embargo is needed.
   Specify whether the data produced and/or used in the project is usable by third parties, in particular after the end of the project? If the re-use of some data is restricted, explain
- Describe data quality assurance processes.
- . Specify the length of time for which the data will remain re-usable.

The datasets generated in this study will follow the Creative Commons Attribution 4.0 International License (CC BY 4.0), which allows for broad dissemination and reuse, including for commercial purposes, while requiring proper attribution to the original source. The data will be made available for re-use immediately upon completion of the primary analysis, ensuring timely access for fellow researchers and stakeholders. No data embargo will be imposed, as expeditious dissemination aligns with the open science principles underpinning this research. Furthermore, all data produced and utilized in this project will be readily usable by third parties, even after the project's conclusion. Data quality assurance will be upheld through rigorous validation and verification processes during collection, transcription, and analysis phases, ensuring accuracy, completeness, and reliability. The data will remain re-usable indefinitely, with no predetermined expiration date.

### Allocation of resources

Explain the allocation of resources, addressing the following issues:

- Estimate the costs for making your data FAIR. Describe how you intend to cover these costs
- Clearly identify responsibilities for data management in your project
- . Describe costs and potential value of long term preservation

The cost associated with making my research data open access is covered by the Horizon 2020 grant.

## **Data security**

Address data recovery as well as secure storage and transfer of sensitive data.

The DDI-Lifecycle allows for recovery and secure storage and transfer of data in compliance to other data standards.

## **Ethical aspects**

To be covered in the context of the ethics review, ethics section of DoA and ethics deliverables. Include references and related technical aspects if not covered by the former.

The informed consent also requested the participant agreement to the data been shared to other researchers for research purpose.

### Other

Refer to other national/funder/sectorial/departmental procedures for data management that you are using (if any).

Question not answered