The pitfalls of open innovation

A Data Management Plan created using DMPonline.be

Creator: Dirk Czarnitzki https://orcid.org/0000-0001-5118-7272

Affiliation: KU Leuven (KUL)

Funder: Fonds voor Wetenschappelijk Onderzoek - Research Foundation Flanders (FWO)

Template: FWO DMP (Flemish Standard DMP)

Grant number / URL: G0C6921N

ID: 200940

Start date: 01-01-2021

End date: 31-12-2024

Project abstract:

The concept of Open Innovation (OI) has breathed new life into both empirical research and industry practice concerned with distributed and collaborative modes of innovating. Certainly, the volume of OI research and its impact on practice has been remarkable. However, equally remarkable is the lack of balance. With few exceptions, the stories of OI are positive stories. The focus on successes leads to open innovation imperatives and the conclusion that, where 'openness' falls below some optimum, as is frequently the case, there is (market) failure. Despite suggestions of eventual diminishing returns, the common conclusion of most scholarly articles is that for most firms, openness is good and more openness is better.

In this research project, we will nuance this perception by empirically investigating the relationships between innovation openness and its effects on project abandonment, IP litigation risk, as well as (unintended) knowledge leakage and eventual product imitation. Using unique (survey) data from Belgium and Germany we will investigate multiple modes of OI and their impact on the aforementioned dangers and risks firms are facing in their (open) innovation strategy implementation.

These pitfalls of OI will lead to both managerial and policy implications. Managers will find it useful to review their IP strategies carefully and to re-inforce a careful project management control, and policy makers may re-consider their collaborative R&D and innovation-cluster policies.

Last modified: 03-07-2023

The pitfalls of open innovation
Application DMP

Questionnaire

Describe the datatypes (surveys, sequences, manuscripts, objects …) the research will collect and/or generate and /or (re)use. (use up to 700 characters)

The research project will re-use data from the
- German Innovation Survey (Mannheim Innovation Panel)
- Flemish Innovation Survey

Specify in which way the following provisions are in place in order to preserve the data during and at least 5 years after the end of the research? Motivate your answer. (use up to 700 characters)

1. Designation of responsible person (If already designated, please fill in his/her name.)

   Dirk Czarnitzki

2. Storage capacity/repository
   - during the research

     on servers of KU Leuven (ECOOM) and ZEW Mannheim.

   - after the research

     on servers of KU Leuven (ECOOM) and ZEW Mannheim.

What’s the reason why you wish to deviate from the principle of preservation of data and of the minimum preservation term of 5 years? (max. 700 characters)

Does not apply.

Are there issues concerning research data indicated in the ethics questionnaire of this application form? Which specific security measures do those data require? (use up to 700 characters)

Does not apply.

Which other issues related to the data management are relevant to mention? (use up to 700 characters)

None.

The pitfalls of open innovation
FWO DMP (Flemish Standard DMP)

1. 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.

				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
German Innovation Survey	Innovation data at the firm-level	Re-use existing data	digital	*Obervational*	*.dta*	*< 100 MB*	
Flemish Innovation Survey	Innovation data at the firm-level	Re-use existing data	digital	*Obervational*	*.dta*	*< 100 MB*	

If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type:

German Innovation Survey: https://www.zew.de/en/research-at-zew/zew-research-data-centre-zew-fdz
Flemish R&D Data: www.ecoom.be

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? Describe these issues in the comment section. Please refer to specific datasets or data types when appropriate.

- No

Will you process personal data? If so, briefly describe the kind of personal data you will use in the comment section. Please refer to specific datasets or data types when appropriate.

- No

Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, …)? If so, please comment per dataset or data type where appropriate.

- No

Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material/Data transfer agreements/ research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.

- Yes

The data transfer agreements ("User agreement") relate to the Mannheim Innovation Panel data. Below I summarize the restrictions that are in place:
- The database may not be processed or used for purposes that are different from the research project; in particular commercial or any other business purposes involving expert opinions – free of charge or against payment – for private or public clients is not permitted.
- Individual statistical data from other sources must not be combined with the database.
- The Data Recipient shall refrain from any actions which is intended or suited to deanonymize the individual statistical data contained in the database.
- The Data Recipient may not commission third parties (sub-contractors, self-employed persons, or free-lancers) to process or use the database.
- The Data Recipient is obliged to announce any loss or deterioration of the database and any infringements of the database by third parties to the Data Provider.
- The Data Recipient shall be obliged to delete the database and any backup copies, selected files and auxiliary files at the latest at the end of the research project or upon the termination of the User Agreement.

Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain in the comment section to what data they relate and which restrictions will be asserted.

- No

2. 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).

All data manipulations will be carried out in the datamanagement and statistical software STATA. The STATA code will document exactly all data cleaning steps and every analysis such that a person trained in the art will understand how we go from the raw data to the exact results published in our papers.

Will a metadata standard be used to make it easier to find and reuse the data? If so, please specify (where appropriate per dataset or data type) which metadata standard will be used. If not, please specify (where appropriate per dataset or data type) which metadata will be created to make the data easier to find and reuse.

- No

3. Data storage & back-up during the research project

Where will the data be stored?

During the project, I will use the range of storage solutions provided by KU Leuven: a KUL-managed computer, desktop file storage, KUL OneDrive.
These storage types are encrypted by a personal password.

How will the data be backed up?

Automatic backup by our IT department.

Is there currently sufficient storage & backup capacity during the project? If yes, specify concisely.
If no or insufficient storage or backup capacities are available, then explain how this will be taken care of.

- Yes

How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

The data is stored on the secured university storage.

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

No additional cost.

4. Data preservation after the end of the research project

Which data will be retained for at least five years (or longer, in agreement with other retention policies that are applicable) after the end of the project? In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).

The data from the Mannheim Innovation Panel (MIP) will be accessible for scientific use at ZEW's Research Data Centre.
The Flemish data will be available through ECOOM at KU Leuven.
Researchers who want to re-produce our results only need access to the
sources mentioned above. We will store the supplements of the raw data together with our code that re-produces all results.

Where will these data be archived (stored and curated for the long-term)?

The data from the Mannheim Innovation Panel (MIP) will be accessible for scientific use at ZEW's Research Data Centre.
The Flemish data will be available through ECOOM at KU Leuven.

What are the expected costs for data preservation during the expected retention period? How will these costs be covered?

No extra cost. Both ZEW and ECOOM offer storage services free of charge for research that has been conducted with their data.

5. Data sharing and reuse

Will the data (or part of the data) be made available for reuse after/during the project? In the comment section please explain per dataset or data type which data will be made available.

- Yes, in a restricted access repository (after approval, institutional access only, ...)

If access is restricted, please specify who will be able to access the data and under what conditions.

Researchers from any public research institution. The data can be used for any not-for-profit purpose.

Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)? Please explain in the comment section per dataset or data type where appropriate.

- Yes, Other

- The database may not be processed or used for purposes that are different from the research project; in particular commercial or any other business purposes involving expert opinions – free of charge or against payment – for private or public clients is not permitted.
- The Data Recipient may not commission third parties (sub-contractors, self-employed persons, or free-lancers) to process or use the database.

Where will the data be made available? If already known, please provide a repository per dataset or data type.

The data from the Mannheim Innovation Panel (MIP) will be accessible for scientific use at ZEW's Research Data Centre.
The Flemish data will be available through ECOOM at KU Leuven.

When will the data be made available?

Upon publication of research results.

Which data usage licenses are you going to provide? If none, please explain why.

Restrictions specified in the Data Transfer agreement:
- The database may not be processed or used for purposes that are different from the research project; in particular commercial or any other business purposes involving expert opinions – free of charge or against payment – for private or public clients is not permitted.
- The Data Recipient may not commission third parties (sub-contractors, self-employed persons, or free-lancers) to process or use the database.

Do you intend to add a PID/DOI/accession number to your dataset(s)? If already available, you have the option to provide it in the comment section.

- No

What are the expected costs for data sharing? How will these costs be covered?

Does not apply

6. Responsibilities

Who will manage data documentation and metadata during the research project?

Dirk Czarnitzki

Who will manage data storage and backup during the research project?

Dirk Czarnitzki

Who will manage data preservation and sharing?

Dirk Czarnitzki

Who will update and implement this DMP?

Dirk Czarnitzki

The pitfalls of open innovation
GDPR

GDPR

Have you registered personal data processing activities for this project?

- Not applicable
- Not applicable

The pitfalls of open innovation
DPIA

DPIA

Have you performed a DPIA for the personal data processing activities for this project?

- Not applicable