Supplementary

Research data management survey*

This questionnaire is part of the R&D project "OpenDataScience" (CSO2012-39632-C02-01), whose objective is to promote the exchange of scientific data.

We understand by "scientific data" all material that has been registered during the research, recognized by the scientific community, and that serves to certify their results. They must also come from a single source and must be difficult or impossible to obtain again (Torres -Salinas, Robinson-García, Cabezas-Clavijo, 2012.) Some examples are graphs, tables, videos, numerical data, and other raw data (raw data).

By data reuse we understand the possibility of creating new knowledge from existing data, combining them in new ways not imagined in their original form.

We request your collaboration by completing the survey below, which consists of 40 questions divided into three Section s and should last between 10 and 15 min.

The answers collected in this questionnaire do not involve the processing of personal data. Your answers do not allow to identify you and, in those cases in which exceptional circumstances allowed, it is expressly warned. The researchers will not carry out any type of re-identification, in any case.

Being aware of the multitude of surveys that arrive by mail, we appreciate you dedicating a few minutes to our survey.

* The results of this survey will be shared with similar projects

A. Personal information

1. Age *

2. Sex *

3. Choose from the list the University or Research Center where you have completed the most of his scientific work in the last 5 years *

4. State your work discipline (s) *
Select all that apply.
-Life Sciences and Biomedicine: life sciences and biomedicine
-Physical Sciences: physical sciences
-Technology: technology
-Arts and Humanities: art and humanities
-Social Sciences: social sciences

5. Full name of the department or unity

6. Level of studies *
-Third cycle: PhD
-Second cycle: Bachelor/Master
-First cycle: Diploma/Degree
-Other:

7. Indicate what has been the usual function that has played in the work teams
of the investigations developed in the last 5 years. *
-Senior researcher
-Principal investigator
-Assistant/Research Technician
-Research collaborator
-Other:

8. How many years have you been investigating? *
-Less than 5 years
-From 5 to 10 years
-From 11 to 20 years
-More than 20 years

9. Do you publish your work in international journals?

-Yes

-No

B. Creation and reuse of data

10. In the research projects in which you have participated, is there any policy or data management plan (implicit or in writing) that includes any of these items? *

Select all that apply.

- No, there is not

-Normalization of the names of the files or the structure of the directories

-Rules of anonymization and confidentiality

-How to extract files from measuring instruments

-Units where they are stored for use by the research group

-Levels of authorization to access and modify data

-Access registry

-External services where you must deposit them, such as repositories, banks data and general platforms (Google drive/Dropbox) or specialized (Figshare/Dryad)

-Rules for the protection of intellectual property rights

-Terms of use by people outside the group

-Other:

11. If so, what was the main reason for developing this policy?

Select all that apply.

-Requirement of the financing entity of the project

-One day we lost all data or we cannot use data from old projects for lack of software or hardware

-Absence of an institutional data management policy

-Size of the project team (e.g., multiple data creators)

-Complexity or volume of data associated with the project (e.g., multiple formats)

-Need for research to access/analyze/annotate data from others

-Other:

12. What do you think is the main reason why there is no policy?

Select all that apply.

-Not required or appropriate for the research field or research group

-Not required by the project financing entity

-Lack of support or guidance (e.g., central library, computer service, etc.)

-Time and effort required

-Absence of an institutional obligation of data management

-I do not know

-Other:

13. Who has the responsibility in the group to manage the data? *

Select all that apply.

-You

-Project or research group director

-Assistant or research student

-Research technician

-Computer of the unit or department

-Computer center of the institution

-External data center

-Do not know, no answer

-No one

-Other:

14. Where do you usually store your research data? *

Select all that apply.

-Local computers of researchers or instruments / sensors

-Portable storage units (USB, DVD, etc.)

-Institutional network server

-External storage service (cloud)

-Other:

15. What types of data do you back up frequently? *

Select all that apply.

-Raw data of the project or topic that I work

-Clean data that I make public in articles

-I do not make copies or only when I remember

16. In the processing of your research data use *

-Mainly free formats

-Mainly proprietary formats

-Other:

17. Would you like to use research data collected by other researchers? *

-Yes

-Do not

18. Do you currently use unpublished research data from other researchers with those who do not collaborate? *

-Yes

-Do not

19. What means do you use to locate and access reusable data from others? researchers? *

Select all that apply.

-Contact with colleagues

-Web of the authors/research groups

-Institutional database and search utilities

-General search engines (Google, Yahoo, etc.)

-Documentation centers or archives (World Data Center, DANS, National Archives, etc.)

-Additional material associated with the article in the platforms of the journals

-Not applicable (I do not use data from others)

-Other:

20. What external data do you usually use?

Select all that apply.

-Meteorological

-Sociodemographic

-Economic

-Geological/Geographic

-Other:

21. Besides these, what other external data do you know?

22. Which of the following statements fits the data of your current research?*

Select all that apply.

-My data is available in open for everyone

-My data is available in open for my scientific discipline

-My data is available to my research group and/or colleagues collaborating in the investigation

-I do not share my data, but I would like to do it in the future

-My data is available by paying a fee

-My data could be available with the appropriate changes (for example, data clinical anonymous or with the obligation to quote them)

-I do not share my data and I do not want to do it in the future

23. Have other investigators ever asked for your data? *

-Yes

-No

24. Have you ever been asked to have your own data available in the open? *
-Yes
-No
25. If yes, indicate who requested it
Select all that apply.
-Funder
-Journal
-Institution
-Another research group
-Other:
26. What worries you when sharing data in an external service? *
Select all that apply.
-Fear of losing the lead in research
-Wasting time making them available
-Legal issues: confidentiality/intellectual property rights
-Misuse or interpretation of data
-I do not know digital files (repositories or documentation centers) to which I can send data
-No problems are foreseen
-Loss of authorship
-I do not think my research data is safe in a documentation center, web of a journal or repository
-Other:

C. Preservation of the data once the project is finished

27. Rate from 1 to 7 the following threats TO YOUR DATA for the next 10 years
1 (Nothing important) and 7 (Very important)
-Users might be unable to understand or use the data (semantics, formats or algorithms involved)
-The lack of software, hardware, or sustainable support of computers
-The origin and authenticity of the data may be uncertain
-Restrictions on access and use (intellectual property)
-Loss of capacity for locate the data
- current custody of the data, in an organization or project, may cease to exist in some
point in the future
-Those we trust to take care of the data, they can fail us
28. How do you store research data to preserve your future access and use?*
Select all that apply.
-Personal computer
-Server of the organization (departmental or organizational directory)
-Repository of my organization
-Digital archive of my discipline (in my organization)
-Magazine to make them public next to the manuscript
-External Web Service such as Google Drive or Dropbox
-Specialized external service (Dryad, ArrayExpress, Figshare, DataOne, etc.)
-I do not store digital data about research
-Other:
29. Where do you consider it more appropriate to preserve and share the data of your
research? *
Select all that apply.
-Repository
-Service specialized in generalist data
-Editorial (data included with a scientific article)
-External service specialized in my discipline
-Other:
30. When sending data to an external installation, what is required of you?

Select all that apply.

-Additional information, such as manuals, software, etc.

-Transfer the copyright

-Description and metadata

-Other:

31. Is there any facility in your discipline for the preservation of digital data that can I use? *

-No

-I do not know

-Yes

32. If yes, specify which:

33. Do you know if there are plans in your research community for the creation of a repository or data file for storage and preservation? *

-Yes

-No

34. If yes, describe: discipline, name, when will it be, how has it been done?

35. How do you think this infrastructure should be?

Select all that apply.

-By discipline

-By type of data

-By organisms

-Other:

36. In your discipline, who provides guidelines or recommendations to preserve data?*

Select all that apply.

-Scientific societies/Professional associations

-My own organization

-Editorials (journals)

-Funding organizations

-government

-None of the above

-I do not know

37. What do you usually describe about your digital research data?

Select all that apply.

-Administrative information (creator, creation date, file name, origin, etc.)

-Technical information (type of coding, description, file format, configuration, etc.)

-Information about the project (title, reference of the financier, methodology of creation of the data, etc.)

-I do not describe them

-Other:

38. Prioritize from 1 to 7 the importance of the following reasons to preserve data

1 (Nothing important) and 7 (Very important)

-If the research is funded publicly, the results they should become property public and, therefore, be duly preserved

-Stimulates the advancement of science based on knowledge existing

-It serves to validate the research

-Allows reanalysis of data existing

-It can stimulate collaborations interdisciplinary

-It has potential economic value

-They are unique and irreplaceable

39. Does your organization help you with data preservation? (setting procedures for naming files, guides for external servers to store, personal to upload files, etc.) *

-Yes

-No

40. Do you have any comments regarding this survey or do you want to leave us your email?