UOS

Intro
This is a survey on Open Science practices at Utrecht University - an initiative from the UU Open Science Platform.

Many thanks for your interest!

The manner in which science is conducted and communicated is shifting towards more openness and transparency. This transition is known as Open Science. Well known examples of Open Science are Open Access publishing and sharing data and materials, but Open Science also entails communication and interaction with societal stakeholders.

We would like to learn more about what academics at UU and UMCU think about Open Science and whether or not Open Science practices are incorporated into the workflow of research.

The aim of this survey is to monitor knowledge, attitudes, and behaviours towards Open Science practices at UU and UMCU. For example, which Open Science practices may improve the quality and impact of your work? What obstacles do you encounter? And in what way are these Open Science practices supported and rewarded? The results will be used by the Open Science Platform to inform the UU Open Science Programme: How can the UU best cater to staff members' current attitudes, knowledge, and needs surrounding Open Science? The results may also be used for scientific publications.

 Note that we will send out this survey to UU employees again next year, to monitor Open Science knowledge, attitudes and practices over time.

For this we need your input!

How long does the survey take?
It will take 15-20 minutes to fill out the survey. Although completion on a smartphone or tablet is possible, completing the questionnaire on a computer is much easier. Please fill out the survey in one sitting.

Is participation voluntary?
Yes, participation in this survey is entirely voluntary; you may cease your participation at any desired moment. For every question you may opt not to answer. Needless to say, it will be

better for the quality of the data if you complete the entire questionnaire.

What happens with the data?
Your data are strictly confidential, and will be processed in accordance with the privacy rules and the data storage protocol of Utrecht University. We will ask for some personal information such as your age category, nationality, position, and department. We will use this information to explore patterns in how Open Science practices vary across our university employees. Although personal information could in principle be used to trace your identity, only pseudonymized data will be made publicly available after results are published—these data will not contain any personal identifiers. The data will be stored on a platform suitable for sensitive data (YODA) and only Principal Investigators will have access to the original data. Only quantitative (numerical) data will be made publically available, not answers to open-ended questions. We will only report results at aggregate group levels (of at least 10 individuals), not at the level of individual respondents. Reported results will thus never be traceable to individual employees. The results will be used by the Open Science Platform to inform the UU Open Science Programme. The results will not be normatively used to evaluate individuals or groups in any way. The results may also be used for scientific publications. This survey was approved by the Ethics Committee of the Faculty of Behavioral and Social Sciences (code: 20-122). The Principal Investigators of this research project are Sander Thomaes, Joost de Laat, Ruth van Veelen, Judith de Haan, and Loek Brinkman.

In case of questions or comments on this survey, please contact: openscience@uu.nl;

Consent **Have you read the conditions of participation, and do you accept them?**

○ Yes, I have read and understood the information above, agree that my data is processed for the stated research aims, and will participate in this survey (1)

○ No, I do not accept these conditions and will not participate in this survey (2)

Page Break ————————————————————————————————

⤨

Gender
What is your gender?
This question will not be part of the data that will become publicly available.

○ Man (1)

○ Woman (2)

○ Other/I'd rather not say (3)

Age **What is your age category?**
Please select the category that includes your date of birth
This question will not be part of the data that will become publicly available.

○ 1930-1939 (4)

○ 1940-1949 (5)

○ 1950-1959 (6)

○ 1960-1969 (7)

○ 1970-1979 (8)

○ 1980-1989 (9)

○ 1990-1999 (10)

○ 2000-2009 (11)

Nationality **What is your nationality?**
This question will not be part of the data that will become publicly available.

○ Dutch (1)

○ Other, namely (2) _____

- -

Page Break ————————————————————————————————————

IntroWE **We now have some questions about your work environment at UU**

Faculty **What faculty do you work at?**
 NB: If you work at multiple faculties at UU simultaneously, please answer this question by selecting the faculty at which you have the largest contract. If none of the answer options fit to your situation, please select other namely and write down for which faculties you work.

○ Faculty of Geosciences (1)

○ Faculty of Humanities (2)

○ Faculty of Law, Economics and Governance (9)

○ Faculty of Medicine (4)

○ Faculty of Science (5)

○ Faculty of Social and Behavioural Sciences (6)

○ Faculty of Veterinary Medicine (7)

○ Other, namely (8) _____

Page Break ──

Department **What department
within ${Faculty/ChoiceGroup/SelectedChoicesTextEntry} do you work at?**

_____

Pos
What is your current position?
 NB: If you hold multiple positions, please indicate the position with the highest level.

○ PhD (1)

○ Post-doc (2)

○ Assistant Professor (3)

○ Associate Professor (14)

○ Full Professor (15)

○ Other, namely (9) _____

DefYear **In what year do you plan to defend your PhD?**
This question will not be part of the data that will become publicly available.

▼ 2020 (4) ... 2030 (25)

PhDYear
In what year did you obtain your PhD?
This question will not be part of the data that will become publicly available.

▼ 1960 (1) ... 2020 (61)

Exp
Since when are you employed at Utrecht University and/or Utrecht Medical Centre?
This question will not be part of the data that will become publicly available.

▼ 1950 (1) ... 2020 (71)

Contr **Do you currently have a permanent or temporary contract?**
If you currently hold multiple positions, please indicate the position with the highest level.

○ Permanent (1)

○ Temporary (2)

○ Temporary, but with prospects of permanent (3)

○ Other, namely (4) _____

✱

ContractHours
How many hours a week do you work <u>according to your contract</u>
Please answer between 0-40.

_____

Page Break ————————————————————

LeadPos **In the last five years, have you ever held any of the following leadership positions?**
Please check all that apply.

☐ Leadership position within the academic unit you work in (e.g., department or program chair) (1)

☐ Leadership position on the board of a scientific journal (e.g., chief or associate editorship) (13)

☐ Leadership position on a committee that makes academic promotion or tenure decisions (14)

☐ Leadership position on a board that organizes an academic conference or convention (15)

☐ Other leadership position, namely: (16)

_____

☐ Leadership position within a body in which PhD candidates or postdocs organize themselves (e.g., within your faculty, university, or field of research) (17)

☐ Leadership position as supervisor of an early career, post-graduate researcher (e.g., PhD candidate, postdoc) (18)

☐ Leadership position within an academic society (e.g., chairing of being on the board of an academic society) (19)

☐ None of the above (20)

OSCU **Are you a member of Open Science Community Utrecht?**
This question will not be part of the data that will become publicly available.

○ Yes (1)

○ No (2)

TypeIntro **We now have some questions about the type of research that you do**

TypeOfResearch **What type of research are you involved in?**
Please check all that apply.

☐ Quantitative - Experimental (1)

☐ Quantitative - Observational (2)

☐ Quantitative - Other (3)

☐ Qualitative (4)

☐ Theoretical (5)

☐ Other, namely (6) _____

Display This Question:

If What type of research are you involved in? Please check all that apply. = Quantitative - Experimental

Or What type of research are you involved in? Please check all that apply. = Quantitative - Observational

Or What type of research are you involved in? Please check all that apply. = Quantitative - Other

Or What type of research are you involved in? Please check all that apply. = Qualitative

Or What type of research are you involved in? Please check all that apply. = Other, namely

Human **Does the (qualitative or quantitative) research involve data collection from human subjects?**

○ Yes (1)

○ No (2)

○ Other, namely (3) _____

- -

Page Break ————————————————————————————————

UCdes **We ask you to develop a unique code.**

 Because we aim to monitor Open Science knowledge, attitudes, and practices over time, next year we will repeat this survey among academics at UU. Importantly, your decision to participate now is not, in any way, linked to your decision to participate next year. Your decision to participate next year is, again, completely voluntary.
To create the possibility to link your data at multiple timepoints, we ask you to create a unique, anonymous code. You can create this code yourself on the basis of information that is only known to you. If you decide to participate again next year, this will allow us to connect your data while protecting the confidentiality of your responses. The sole purpose of the code is to connect your datapoints. We acknowledge that, in cases, the information you provide to create your code could in principle be used to trace your identity. However, the research team will not include this information, or your code, in publicly available datasets, nor will it share it with any other parties or UU employees. After datapoints are connected, original codes will be replaced and removed from the data.

---

*

UC1 **What is the first letter of your place of birth?**
 As stated in your passport.

_____

---

*

UC2 **How many brothers and sisters do you have?**
 Please include half-brothers and half-sisters.
 If you do not have brothers and sisters, please fill out "0".

_____

---

*

UC3 **What is/was your mother's year of birth?**
 Please enter two digits, e.g., 55 to denote 1955.
 If you can't remember your mothers' year of birth, use 00.

*

UC4 **What is/was the first letter of your father's first name?**

Page Break

DisplayID

You now have the unique ID: **${e://Field/ID}.**

You do not have to remember the code, just the answers to the questions. Next year, we will ask the same questions to be able to link your data.

 This Code is case sensitive.

Page Break ———————————————————————————————————

OSPdes **In this part of the survey we are curious to learn about your familiarity with, attitudes towards and behaviours regarding a selection of 10 Open Science practices.**

 Below you will find a table with a description of each Open Science Practice. Please take your time to read the descriptions carefully, as we will ask questions about them in the remainder of this survey.

⤧

PracAw **First, please read the descriptions of the 10 Open Science practices and indicate in the right column whether you are aware of this practice** (yes/no)**.**
 Note: At this point we are interested in whether you have heard of this practice, not whether you use it yourself.

	Are you aware of this practice?	
	Yes (1)	No (2)

Pre-registration: Writing down study predictions or planned analyses (time-stamped) in advance of analyzing your outcome data. Pre-registration occurs prior to data collection and can be made public prior to or at the same time as the corresponding journal article. Pre-registration is used to warrant that hypotheses were formulated prior to analysis (also know as a pre-analyis plan) and that experiments and analysis were carried out according to that plan. (59)

Pre-prints: Pre-prints are full drafts of journal articles that are published prior to peer-review. They are open for feedback, citable, and are intended to accelerate the dissemination and uptake of new findings. Examples of platforms where pre-prints are uploaded are bioRxiv and PsyArXiv. (60)
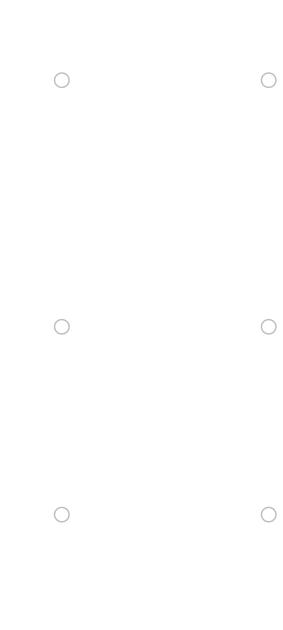
Open Access Publising: Publishing journal articles or books in a manner which makes the content freely accessible to everyone to read and re-use. No journal subscriptions are required to access the document. Publishing Open Access can be achieved in many ways e.g. publishing in Open Access journals (Gold Open Access), choosing for Open Access in subscription-free journals (Hybrid-Gold Open Access) or archiving your article or book in a public repository (Green Open Access). (61)

Open data: Posting data online for a research project. Posting data might be "raw", meaning in the form it was collected, or "cleaned", meaning corrected for errors, transformed into scales or into coded themes, etc. Ideally open data should also adhere to the FAIR principles, meaning that the data is Findable, Accessible, Interoperable and Reusable. Typical platforms where data can be shared are the Open Science Frameowork, DataverseNL, and YODA. (62)

Open Materials: Examples of materials that can be shared are: stimulus materials presented to participants, questionnaires, participant instructions, experimental intervention materials, lab protocols and other documents used to gather data. (63)

Open code: Code (or syntax) relates to coding files used to analyse or clean the quantitative data, or in the case of qualitative data, transform the data into themes. It can be shared using platforms such as GitHub or Zenodo, or by sharing it along with your data. (64)

Open source software: By open source software we mean software that is freely available for anyone to use, without universities or individuals having to pay a licence or membership fee to access that software. Moreover, open source software allows users to view and make adaptations of the source code of the software. (65)

○   ○

Public engagement: Direct interaction (i.e., not mediated by press or mass media) with general, non-academic audiences, e.g., school visits, debates, public or cultural events, or citizens contributing to data collection, data analysis or research agenda-setting (citizen science). (66)

○   ○

Research with societal stakeholders: In these research projects, researchers, often from different disciplines, collaborate closely with non-academics from private or public sectors, to co-produce knowledge on an issue or societal challenge. (67)

○   ○

Team Science: In Team Science, researchers collaborate in a team where each team member has its own expertise. For example, one team member may be responsible for data collection, while another team member is responsible for statistical analyses, while yet another team member is responsible for writing and communication. Team Science is the opposite of one researcher being responsible for all aspects of a research project. (68)

○   ○

Page Break

PractDes1 In your opinion, how important is each Open Science Practice for the quality or impact of your research?
Please provide an answer by clicking on the button that reflects your answer best.

PracAtt How **important** is this practice for the quality or impact of your research?

	Not at all important (2)	Of limited importance (3)	Quite important (4)	Very Important (6)
Pre-registration (1)	○	○	○	○
Pre-prints (6)	○	○	○	○
Open Access publishing (5)	○	○	○	○
Open data (2)	○	○	○	○
Open materials (11)	○	○	○	○
Open code (3)	○	○	○	○
Open source software (4)	○	○	○	○
Public engagement (7)	○	○	○	○
Research with societal stakeholders (9)	○	○	○	○
Team Science (12)	○	○	○	○

PracBeh **We are now interested in your engagement in Open Science Practices behaviours in your work as a researcher.**
Please provide an answer by clicking on the button that reflects your answer best.

To what extent is this practice **part of your workflow** in your research?

	I have never done it (2)	I rarely do it (3)	I do it for some of my projects (4)	I do it for (almost) all of my projects (6)
Pre-registration (1)	○	○	○	○
Pre-prints (6)	○	○	○	○
Open Access publishing (5)	○	○	○	○
Open data (2)	○	○	○	○
Open materials (11)	○	○	○	○
Open code (3)	○	○	○	○
Open source software (4)	○	○	○	○
Public engagement (7)	○	○	○	○
Research with societal stakeholders (9)	○	○	○	○
Team Science (12)	○	○	○	○

Page Break

Oppdes **The following statements are about what you see as the potential opportunities from engaging in Open Science practices.   To what extent do you agree with the following 5 statements about potential opportunities** for academics to engage in Open Science practices? (1 = Strongly disagree ; 2 = Disagree ; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree)

OppMat Engaging in Open Science practices has the **opportunity** to... ?

	Strongly **disagree** (1) (18)	(2) (24)	(3) (19)	(4) (20)	Strongly **agree** (5) (21)
...improve the quality of scientific knowledge (1)	○	○	○	○	○
...detect unethical behavior in research practices (2)	○	○	○	○	○
...improve diversity and inclusion in academia (3)	○	○	○	○	○
...improve fairness in reward and promotion systems in academia (4)	○	○	○	○	○
...create more career opportunities for young academics (5)	○	○	○	○	○
...increase societal impact (12)	○	○	○	○	○

Page Break

OppSpec In your opinion, are there any **Open Science practices in particular that offer positive opportunities** for academics and their research? Also, are there any opportunities to Open Science practices that we missed?

Please elaborate on this in a few sentences in the text box below:

Reminder list of OS practices: pre-registration; pre-print; Open Access publishing; Open data; Open materials; Open code; Open source software; Public engagement; Research with stakeholders; Team Science.

_____

_____

_____

_____

_____

End of Block: Opportunities

Start of Block: Barriers

BarrIntro The following statements are about the potential obstacles that prevent you from engaging in Open Science practices
 To what extent do you agree with the following 5 statements about potential obstacles for you to engage in Open Science practices ?
 1 = Strongly disagree ; 2 = Disagree ; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

BarMat An important **obstacle that would prevent** me from engaging in Open Science practices is that...

	Strongly disagree (1) (1)	(2) (7)	(3) (8)	(4) (9)	Strongly agree (5) (10)
...my workload is too high to integrate these practices. (1)	○	○	○	○	○
...I do not get time within my contract hours to do / learn this. (2)	○	○	○	○	○
...I do not get recognition from my supervisor for this. (3)	○	○	○	○	○
...it is not the norm to do this in my department (my colleagues don't do it). (4)	○	○	○	○	○
...there is insufficient practical support and training available in my department about this. (5)	○	○	○	○	○
...I would lose autonomy and freedom in how I do my research. (6)	○	○	○	○	○

| ...My research does not allow for it due to embargo's and patent issues. (12) | ○ | ○ | ○ | ○ | ○ |

Page Break

BarrSpec In your opinion, are there any **Open Science practices in particular that come with obstacles that prevent academics from applying them** in their research? Also, are there any obstacles to Open Science practices that we missed?

Please elaborate on this in a few sentences in the text box below:

Reminder list of OS practices: pre-registration; pre-print; Open Access publishing; Open data; Open materials; Open code; Open source software; Public engagement; Research with stakeholders; Team Science.

_____

_____

_____

_____

_____

End of Block: Barriers

Start of Block: Department questions

DepInt **The following questions are about the work culture in your department**
At UU, departments differ in their work culture. We are interested to know how you experience the culture within your department at Utrecht University. To what extent do the following statements apply to the work culture in your department?

DepQ **The department in which I work is a department where:**

	Not at all applicable (1) (1)	Not very applicable (2) (2)	Somewhat applicable (3) (3)	Very applicable (4) (4)	Completely applicable (5) (5)
Emphasis is placed on 'wanting to excel' (1)	○	○	○	○	○
Academics need to be 'the best' (2)	○	○	○	○	○
An atmosphere of competition exists between academics (3)	○	○	○	○	○
There is a collegial, supportive atmosphere (5)	○	○	○	○	○
Team collaboration is considered important (6)	○	○	○	○	○
Inter- or multidisciplinary research collaboration is encouraged (15)	○	○	○	○	○
Academics are expected to commit themselves more to their work than is strictly necessary (8)	○	○	○	○	○
Working overtime is considered normal (9)	○	○	○	○	○

| | ○ | ○ | ○ | ○ | ○ |

Making mistakes is seen as very useful for improving the work of academics (12)

| ○ | ○ | ○ | ○ | ○ |

Problems and errors are always communicated to the appropriate people so that action can be taken. (13)

| ○ | ○ | ○ | ○ | ○ |

Academics openly talk about mistakes they make and ways to prevent and learn from them (16)

| ○ | ○ | ○ | ○ | ○ |

Academics strive to perform better than others (17)

| ○ | ○ | ○ | ○ | ○ |

Generating societal impact is considered important (18)

| ○ | ○ | ○ | ○ | ○ |

Employees are encouraged to interact with non-academic audiences. (19)

| ○ | ○ | ○ | ○ | ○ |

Research collaboration with societal partners is valued. (20)

| ○ | ○ | ○ | ○ | ○ |

Knowledge exchange for social/ environmental purposes is encouraged (21)	○	○	○	○	○

IdentityMat **The following questions are about your professional identity as an academic.**

How do you feel about being an academic and how important is it to you?
Please indicate to what extent you agree with the following statements:

	Strongly **disagree** (1) (1)	(2) (2)	(3) (3)	(4) (4)	Strongly **agree** (5) (5)
I am proud of who I am as an academic (1)	○	○	○	○	○
Being an academic is an important part of my identity (2)	○	○	○	○	○
I think others would describe me as a good academic (3)	○	○	○	○	○

EXPLMERIT
The final set of questions is about work tasks of academics and the systems of reward and recognition.

In recent times, the work of academics is often divided into 5 types of tasks or activities called MERIT: **Management:** includes leadership and organisational tasks at different levels within the University, such as in a labgroup, department or faculty. Examples are membership of committees, organising social events, leading a labgroup, managing a large research project, representing your department, head of department, developing organisational skills (by means of courses). **Education:** includes developing, performing, coordinating and evaluating teaching activities, teaching administration, student supervision and developing your teaching competences (by means of courses). **Research:** includes devising, performing and writing up research, publishing research in peer reviewed journals, supervising PhD candidates, applying for research grants, maintaining (international) research networks and collaborations, visiting conferences, editorial tasks, reviewing manuscripts

Impact: includes public engagement, media appearances, writing popular articles, social media activity, attendance of events with a non-scientific audience, engaging policy makers, and other ways to improve societal impact of your research). **Teamwork:** combining expertise and/or skills of team members in collaboration, being collegiate and contributing as a collective. For example, consortium grant writing, interdisciplinary collaboration, collaborative teaching, conducting research in teams, helping or providing consultation for others, generating joint research output as a team)

TimeMERIT
Please indicate how much of your working time has been devoted to each of these tasks in the past year.
Note: we are interested in the **actual working time** you've spend on these tasks, not what the allocated time on these tasks should be according to formal contract agreements

In the past year:

	I did not spent any time on this task (1)	I spent a small amount of time on this task (6)	I spent a reasonable amount of time on this task (7)	I spent the majority of my time on this task (8)	I spent (almost) all of my time on this task (9)
Management (1)	○	○	○	○	○
Education (6)	○	○	○	○	○
Research (7)	○	○	○	○	○
Impact (8)	○	○	○	○	○
Teamwork (9)	○	○	○	○	○

Page Break

Explain Importance
The work of academics at UU can be evaluated based on the MERIT criteria described previously. For example, annual performance reviews, job changes or important career events (i.e., winning a prize, obtaining your BKO or PHD) could be a reason to discuss the performance and employment conditions of academics on the basis of these criteria.

MERITWEIGHT

In your experience, how important is it to perform well on each of the five tasks to get recognized and rewarded and to be considered succesful as an academic?
 To illustrate, how important is the quality of your performance on each of these tasks to be considered for a promotion or pay raise, to get more formal contract time for a task, or more support and resources, or otherwise improve your employment conditions?

	Not at all important (1)	Of little importance (10)	Of average importance (11)	Very important (12)	Absolutely essential (14)
Management (1)	○	○	○	○	○
Education (6)	○	○	○	○	○
Research (7)	○	○	○	○	○
Impact (8)	○	○	○	○	○
Teamwork (9)	○	○	○	○	○

End of Block: MERIT

Start of Block: COVID

COVIDDes
Open Science and COVID-19

We have an additional question pertaining to how your workflow is affected by the current COVID-19 crisis. During this time, most academics at Utrecht University are working from home. This work situation brings a lot of changes to the time, energy and focus for different tasks. At the same time, the COVID-19 crisis also makes clear how important it is to have Open Science, for example open access and open communication about the latest scientific developments to contain the virus.

We would like to know how your work circumstances during COVID-19 have affected your willingness and ability to prioritize Open Science practices. Do some Open Science practices become less important, or perhaps more important? Please indicate this below.

COVIDPract In my current work flow during this COVID-19, I give this Open Science practice:

	Lower priority (1)	The same priority (2)	Higher priority (3)
Pre-registration (1)	○	○	○
Pre-print (4)	○	○	○
Open Access (5)	○	○	○
Open data (6)	○	○	○
Open materials (7)	○	○	○
Open code (8)	○	○	○
Open source software (9)	○	○	○
Public engagement (10)	○	○	○
Research with stakeholders (11)	○	○	○
Team Science (12)	○	○	○

COVID-Open If you would like to further elaborate on the effects COVID-19 has had on your work situation, and specifically the importance of and ability to engage in Open Science practices, please feel free to do so in the text box below:

_____

Discipline **What department within ${Faculty/ChoiceGroup/SelectedChoicesTextEntry} do you work in?**
 This question will not be part of the data that will become publicly available.

_____

Comments *This is the end of this survey! We thank you for your input. We expect to present the results of this study in the fall of 2020. As stated before, this will only be done at group level (not at individual level). If you have any questions, comments, or complaints about this research, you can write them here below. You can also contact* **openscience@uu.nl**

_____

_____

_____

_____

_____

Withdraw *Please note:*

 Now that you have filled out this survey, you still have the right to withdraw your participation

from this study
 Do you want more information about this?

○ Yes (1)

○ No (2)

- -

Removal We would like to point out that, in accordance with the ethical code of conduct of
Utrecht University, you have the right to decide to withdraw your answers and not to participate
in this research. You may indicate this below. Your answers will then be removed from the
database and will not be included in further research analyses.

○ No, I do not want to delete my answers, I want to SEND my answers and give
permission to use my responses for research analyses (1)

○ Yes, I want to withdraw my participation, REMOVE my answers from the database (2)

End of Block: End