

# **The digital practices of researchers in France**

## **Présentation de l'enquête**

Vous allez remplir un questionnaire portant sur « les pratiques numériques des chercheurs et chercheuses en France » (universités, entreprises privées, établissements publics de recherche, ONG...).

Elle est initiée par le Comité pour la science ouverte (<https://www.ouvrirlascience.fr/>). Elle a pour objectif de mieux connaître vos usages relatifs aux outils numériques et aux données de recherche. Elle est menée par une équipe de recherche pilotée par l'Université de Lyon (Mme Mariannig Le Béchec, ELICO, Urfist de Lyon).

Répondre au questionnaire vous prendra environ 20 mn. Il se compose de 9 parties. Il est important de répondre à l'ensemble des questions.

La date limite de réponse est fixée au 15 septembre 2020.

Si vous le souhaitez, vous pouvez laisser un moyen de vous contacter à la fin du questionnaire afin de participer à la phase qualitative de l'enquête. Vous pouvez également le faire si vous souhaitez être informé des résultats de l'étude ou consulter <https://ecosisteme.hypotheses.org/>.

Merci pour votre participation.

L'équipe de recherche

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Veuillez noter que les informations que vous fournirez dans le cadre de cette enquête seront réservées à l'usage de l'équipe de recherche pour l'objectif du projet et la réalisation des livrables indiqués ci-dessus. Ces informations seront conservées, dans les meilleures conditions de sécurité et de confidentialité, pendant toute la durée de l'enquête et le temps du traitement de ses résultats, à savoir jusqu'à la fin du premier semestre 2021. A l'issue de cette durée, les données à caractère personnel collectées seront définitivement anonymisées. Aucun transfert de données hors de l'Union européenne ne sera réalisé.

L'équipe se fait accompagner par le Délégué à la protection des données personnelles (DPD) de l'Université de Lyon 1. Conformément au Règlement européen relatif à la protection des données personnelles et à la loi Informatique et Libertés, vous bénéficiez d'un droit d'accès, de rectification, d'opposition pour des raisons tenant à votre situation particulière, d'effacement des informations qui vous concernent. Si vous souhaitez exercer ces droits et/ou obtenir communication des informations vous concernant, veuillez-vous adresser à : [mariannig.le-bechec@univ-lyon1.fr](mailto:mariannig.le-bechec@univ-lyon1.fr).

Vous avez la possibilité d'introduire une réclamation auprès de la CNIL par courrier postal : Commission Nationale de l'Informatique et des Libertés 3 Place de Fontenoy – TSA 80715 – 75334 PARIS CEDEX 07 ou en ligne <http://www.cnil.fr/>

## **Introducing the Questionnaire**

Welcome to our questionnaire on "the digital practices of researchers in France" (universities, private companies, public research institutions, NGOs...).

It was initiated by the Committee for Open Science (<https://www.ouvrirlascience.fr/>). Its aim is to better understand how you use digital tools and research data in French scientific communities.

It should take you about 20 minutes to complete this 9-part questionnaire. It is important to answer all the questions. The deadline for responding is 20 July, 2020. If you are interested in participating in a further qualitative phase of the survey, you can leave us a way to contact you at the end of the questionnaire. You can also do this if you want to be informed of the results of the study. Thank you for your participation.

Sincerely, the research team

Please note that the information you provide as part of this survey will be reserved for the purposes of the research team and for the productions listed above. This information will be kept, in conditions guaranteeing its security and confidentiality, for the duration of the survey and for the time needed to process its results, i.e. until mid-year in 2021. At the end of this period, the personal data collected will be rendered permanently anonymous. No data transfers outside the European Union will be carried out. The team is accompanied by the Delegate for the Protection of Personal Data (DPD) of the University of Lyon 1. In accordance with the European Data Protection Regulations and the French Data Protection Act,

you have the right to access, rectify, oppose for reasons relating to your particular situation, or delete information about yourself. If you wish to exercise these rights and/or obtain information about yourself, please contact: [mariannig.le-bechec@univ-lyon1.fr](mailto:mariannig.le-bechec@univ-lyon1.fr) You can file a complaint with the CNIL by postal mail: Commission Nationale de l'Informatique et des Libertés 3 Place de Fontenoy – TSA 80715 - 75334 PARIS CEDEX 07 or online at <http://www.cnil.fr/>.

# **The digital practices of researchers in France**

## **The researcher's environment**

*First, please answer a few questions about your work environment:*

### **1 - What is your main field of research?**

### **2 - For one research operation, how many do you usually work with (including researchers, technicians, engineer)?**

- I work alone
- I work in a group of 2-5 people
- I work in a group of 6-10 people
- I work in a group of 11-20 people
- I work in a group of 21-50 people
- I work with over 50 people

### **3 - What is your function in research?**

- PhD student (including CIFRE)
- lecturer or equivalent
- university professor or equivalent
- research supervisor (CNRS, INSERM, INRAE, CNES ...)
- researcher fellow (CNRS, INSERM, INRAE, CNES ...)
- research engineer
- studies engineer
- researcher in the private sector (R&D engineer, consultant, expert, project manager)
- head of research and development in the private sector

### **4 - What is your professional status?**

- civil servant or equivalent
- on a fixed-term contract
- on a permanent contract
- post-doc
- doctoral contract
- independent worker
- other

other :

### **5 - In what year did you publish or co-publish your research results for the first time (book, article, poster...)?**

1960  2020

### **6 - Which computer operating systems (OS) do you use?**

- Windows
- MacOS
- Linux
- Other Unix
- Other Os (Android...)

*You may select multiple answers.*

### **7 - Do you use your mobile telephone for research purposes (other than phone calls)?**

- never
- rarely
- sometimes
- often
- always

# The digital practices of researchers in France

## Discovering

The next questions will help us learn about your practices and the tools you use when seeking information for research. The tools mentioned in this survey are only given as examples.

### 8 - Before the Confinement, which individual and collective work-management tools did you use?

	never	rarely	sometimes	often	always
video-conferencing (Renavisio, Skype, Zoom...)	<input type="radio"/>				
appointment planning tools (Doodle, Framadate, Evento...)	<input type="radio"/>				
time management tools (StayFocusd, Waste no time...)	<input type="radio"/>				
internal tools specific to my company	<input type="radio"/>				
tools for planning and tracking tasks or for project management (Orgmode, Asana, Trello, Slack...)	<input type="radio"/>				
online services (Google Drive, Sharedoc, Sharepoint, OSF, Core, Office 365...)	<input type="radio"/>				
collective writing tools (Google Docs, Framapad...)	<input type="radio"/>				
reference management tools (Zotero, EndNote, Mendeley, RefWorks...)	<input type="radio"/>				

### 9 - after the Confinement, which individual and collective work-management tools do you use?

	never	rarely	sometimes	often	always
video-conferencing (Renavisio, Skype, Zoom...)	<input type="radio"/>				
appointment planning tools (Doodle, Framadate, Evento...)	<input type="radio"/>				
time management tools (StayFocusd, Waste no time...)	<input type="radio"/>				
internal tools specific to my company	<input type="radio"/>				
tools for planning and tracking tasks or for project management (Orgmode, Asana, Trello, Slack...)	<input type="radio"/>				
online services (Google Drive, Sharedoc, Sharepoint, OSF, Core, Office 365...)	<input type="radio"/>				
collective writing tools (Google Docs, Framapad...)	<input type="radio"/>				
reference management tools (Zotero, EndNote, Mendeley, RefWorks...)	<input type="radio"/>				

### 10 - How do you access to informations useful for your research?

	never	rarely	sometimes	often	always
via institutional access (eg Web of science, Scopus, compagny information bases...)	<input type="radio"/>				
via general engine (Google, Bing...)	<input type="radio"/>				
via academic search engines (Google Scholar, Isidore, BASE, Dimensions ...)	<input type="radio"/>				
via pay-per-view	<input type="radio"/>				
via so-called "warehouses" (Zenodo, Figshare...)	<input type="radio"/>				
via academic digital social networks (Academia, ResearchGate...)	<input type="radio"/>				
via open archives (Arxiv, HAL, Pubmed central...)	<input type="radio"/>				
via digital libraries (Gallica, Archive.org...)	<input type="radio"/>				
via requests ont the web (#IcanhazPDF, Reddit...)	<input type="radio"/>				
via browser extensions (OA button, Unpaywall, Google Scholar button...)	<input type="radio"/>				
via "clandestine" libraries (SciHub, LibGen...)	<input type="radio"/>				
by contacting the authors / producers directly	<input type="radio"/>				

### 11 - How did you discover your current work tools?

- through colleagues, friends
- through my institution, my company
- through digital social networks (Twitter...)
- through a training session
- through online monitoring of the topics
- through commercial canvassing
- by searching on my own

You may select multiple answers.

# The digital practices of researchers in France

## Producing scholarly data

Next, we have a series of questions about your practices involving the reuse, production and processing of your research data.

### 12 - What kind of datasets do you work on?

	never	rarely	sometimes	often	always
numbers, numerical values	<input type="radio"/>				
texts	<input type="radio"/>				
images	<input type="radio"/>				
videos	<input type="radio"/>				
3D	<input type="radio"/>				
sounds	<input type="radio"/>				

### 12bis - What is the estimated amount of this data for one of your researches?

### 13 - Do you reuse data that have already been produced or published?

- never
- rarely
- sometimes
- often
- always

### 14 - To record and safeguard your data, which tools do you use?

	never	rarely	sometimes	often	always
print versions of field or laboratory notebooks	<input type="radio"/>				
digital versions of field or laboratory notebooks	<input type="radio"/>				
lab database (MySQL, MongoDB, Filemaker, Access...)	<input type="radio"/>				
removable devices (USB drive, external hard drive, Time Machine...)	<input type="radio"/>				
local computer network (managed by my research team or organisation)	<input type="radio"/>				
hard drive (personal and / or professional computer)	<input type="radio"/>				
institutional cloud (OdsCloud, ShareDocs...)	<input type="radio"/>				
non-institutional cloud (personal website, Google Drive, Dropbox...)	<input type="radio"/>				

### 15 - Do you archive this data (long-term preservation)?

- yes
- no

### 15bis - If so, if so, to which third party do you entrust them?

Maximum 2 answers

### 16 - Do you use crowdsourcing (Amazon Mechanical Turk, OpenStreetMap, Vigie-Nature...)?

- yes
- no

### 17 - What software do you use to produce your data?

Maximum 5 answers

### 18 - This softwares are?

- paid software
- partially free software, or privately owned
- software that is free of charge
- free software with premium features
- trial- or demo-version software
- software created for this purpose (alone or with colleagues)
- software from within my organization
- software from a research project
- "hacked" paying software

Rank by order of importance. Up to 3 answers.

### 19 - Do you use one or more tools to clean up your data?

- never
- rarely
- sometimes
- often
- always

By "cleaning" we mean changing the format of dates in a file, for example.

### 19bis - Can you specify which tools you use?

3 responses maximum

### 20 - Do you use one or more tools to analyze your data?

- never
- rarely
- sometimes
- often
- always

### 20bis - Can you specify which tools you use?

5 answers maximum

# ***The digital practices of researchers in France***

**21 - Do you use one or more tools to visualize your data?**

- never
- rarely
- sometimes
- often
- always

**21bis - Can you specify which tools you use?**

*5 answers maximum*

**22 - Do you use tools or languages to qualify or describe your data (e.g. thesauruses, repositories, metadata)?**

- never
- rarely
- sometimes
- often
- always

# **The digital practices of researchers in France**

## **Writing**

*Two questions about your academic writing practices:*

### **23 - What tools do you use to write your research documents and publications?**

	never	rarely	sometimes	often	always
word processors (Word, LibreOffice...)	<input type="radio"/>				
online word processors (Framapad, Google drive, Onlyoffice...)	<input type="radio"/>				
lateX editing (Overleaf, Authorea...)	<input type="radio"/>				
light mark-up systems (Orgmode, Markdown...)	<input type="radio"/>				
writing assistance tools (Scrivener,...)	<input type="radio"/>				
specific formats (Jupyter, CoCalc, Python, XML-TEI,MathML...)	<input type="radio"/>				
bibliographical reference managers (Zotero, Endote, Mendeley, RefWorks...)	<input type="radio"/>				
translation tools (Google translate, DeepL, Writefull...)	<input type="radio"/>				
desktoop plublishing software (InDesign, Scribus, Gimp...)	<input type="radio"/>				

### **24 - What tools do you use to generate figures (diagrams, images, maps ...)?**

# **The digital practices of researchers in France**

## **Publishing**

*Questions about academic writing based on your research results:*

### **25 - In what form(s) do you present your research results?**

	never	rarely	sometimes	often	always
speaking at symposia, congress or colloquia	<input type="radio"/>				
articles in peer-reviewed journals	<input type="radio"/>				
articles in non peer-reviewed journals	<input type="radio"/>				
contributing chapters to books	<input type="radio"/>				
articles or interviews in the general or specialised press	<input type="radio"/>				
internal documents within my institution or company	<input type="radio"/>				
publications on digital social networks	<input type="radio"/>				
book publications	<input type="radio"/>				
posting on a website (belonging to my research team, company or university)	<input type="radio"/>				
posting on a personal website, a blog	<input type="radio"/>				
other	<input type="radio"/>				

### **25bis - If you answered "other" to the previous question, what are these other forms?**

### **26 - What are your criteria for choosing to submit a publication or a paper?**

- notoriety of the journal or publisher in my field
- indicators of the journal (Impact Factor, JCR, SIGAPS...)
- criteria involving HCERES, FNRS, CNRS....
- costs (Article Processing Charge)
- transparency of the review process
- Free access (personal choice)
- Refusal to submit to predatory journals
- free access (imposed by my institution or financial backer)

*Rank by order of importance. Up to 4 answers*

### **27 - Do you disseminate non-reviewed preprints of your work?**

	never	rarely	sometimes	often	always
on not-for-profit platforms (arXiv, OSF, HAL, RePec, Zenodo...)	<input type="radio"/>				
on academic digital social networks (Academia, ResearchGate...)	<input type="radio"/>				
on a personal website	<input type="radio"/>				

# The digital practices of researchers in France

## Disseminate, Communicate

A few questions about your broadcasting and communication habits regarding your search results and data production.

### 28 - Do you disseminate data produced during your research using the following platforms?

	never	rarely	sometimes	often	always
via publisher's platforms as a supplement to an articles	<input type="radio"/>				
via data papers	<input type="radio"/>				
via generalist data warehouses (Zenodo, Dryad, Figshare...)	<input type="radio"/>				
via discipline-specific data warehouses (PDB, NCBI, Nakala, Pangae, GenBank...)	<input type="radio"/>				
via platforms for disseminating negative results (Figshare...)	<input type="radio"/>				

### 29 - Do you disseminate other types of scholarly productions?

	yes	no
research projects (OSF ...)	<input type="radio"/>	<input type="radio"/>
grant proposals (RIO ...)	<input type="radio"/>	<input type="radio"/>
protocols and workflow (Protocols.io, MyExperiment, Scientific protocols, DMOPidor...)	<input type="radio"/>	<input type="radio"/>
research notebooks (OpenNotebookscience...)	<input type="radio"/>	<input type="radio"/>
codes (GitHub, Git, Software Heritage...)	<input type="radio"/>	<input type="radio"/>
prototypes	<input type="radio"/>	<input type="radio"/>
research reports	<input type="radio"/>	<input type="radio"/>
accompanying materials for scholarly articles (Kudos, JOVE...)	<input type="radio"/>	<input type="radio"/>
posters	<input type="radio"/>	<input type="radio"/>

### 30 - Do you disseminate your peer-reviewed academic publications via the following?

	never	rarely	sometimes	often	always
open archives (HAL, ArXiv, Repec...)	<input type="radio"/>				
generalist data warehouses (Zenodo, Dryad, Figshare...)	<input type="radio"/>				
academic digital social networks (Academia, ResearchGate...)	<input type="radio"/>				

### 31 - How do you valorise to your research results?

	never	rarely	sometimes	often	always
hackathons <sup>1</sup>	<input type="radio"/>				
search engine referencing (title, abstract, key words...)	<input type="radio"/>				
general digital social networks (Twitter, Facebook...)	<input type="radio"/>				
academic (Academia, ResearchGate) or professional (LinkedIn, associations) digital social networks	<input type="radio"/>				
digital presence (institutional profile page, identifiers, researchers, Wikipedia...)	<input type="radio"/>				
multimedia tools (podcast, streaming: SoundCloud, YouTube, DailyMotion, CanalU...)	<input type="radio"/>				
collaborative online media (The Conversation, AOC...)	<input type="radio"/>				
citizen or participative science (Zooniverse...)	<input type="radio"/>				
technology transfer partnerships (licensing or operating contracts: patent, process)	<input type="radio"/>				
conferences	<input type="radio"/>				

# **The digital practices of researchers in France**

## **Evaluating**

*Two questions about your knowledge of emerging review methods:*

**32 - Are you familiar with peer-review platforms?**

- yes, perfectly
- yes, I've heard of them
- no, I don't know what they are

**33 - If so, which ones?**

- pre-registering (PLOS, OSF, AsPredicted...)
- open peer-review / open evaluation journals (pre-publication) (F1000, PeerJ...)
- open peer review / open evaluation journals (post-publication) (Winnower...)
- peer-review tools (PubPeer, ScienceOpen, Publons, Peer Community In, Self Journal of Science...)

# **The digital practices of researchers in France**

## **The environment surrounding research and scholarship**

*A few questions about how you view your current and future scholarly activity.*

**34 - In your opinion, is it desirable that research data that you have produced, or to the production of which you have contributed, be shared?**

	yes	no
with researchers I have partnership with	<input type="radio"/>	<input type="radio"/>
between researchers in the same discipline or field	<input type="radio"/>	<input type="radio"/>
between researchers in the same country or continent	<input type="radio"/>	<input type="radio"/>
with members of the economic and media field	<input type="radio"/>	<input type="radio"/>
with members of the associative and/or charitable sectors	<input type="radio"/>	<input type="radio"/>
with any citizen, without professional or geographical restrictions	<input type="radio"/>	<input type="radio"/>

**35 - Do you find the sharing and dissemination of data compatible with valorisation activities?**

**36 - In your opinion, will your digital practices evolve in the future? How?**

# **The digital practices of researchers in France**

## **Your profile**

*Finally, please answer three factual questions to allow us to validate our sample and, if you wish, to contact you so you can contribute further to this survey:*

**37 - In what year were you born?**

1940  2000

**38 - What is your gender?**

- female
- male
- I decline to state

**If you would like to participate in the qualitative phase of this survey (by interview) you can leave us a way to contact you (phone, email address, digital ID, profile...) below:**