Minh Ha-Duong

Research Excellence à la Française

Fifty How-Tos for Students and Professionals

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Introduction

Are you an international graduate student or postdoc entering France's rigorous research environment? Do you wonder if you're fully prepared for all aspects of this role, from writing effectively to publishing strategically? Perhaps you're a supervisor seeking a practical reference to support your mentoring interactions, especially regarding skills rarely covered in doctoral schools—like public speaking or meeting conduct. Or maybe you're an active researcher looking to maximize your research time through enhanced productivity in personal branding and project management.

If you recognize yourself above, this compact handbook is your guide. It distills insights into scholarly excellence from my three decades of experience in research, mentoring Master's and Doctoral students, and supervising junior analysts.

My journey with systematic research documentation began thirty years ago as a PhD student at the Centre International de Recherche sur l'Environnement et le Développement in Paris. While managing an international research project and preparing what would become my first —and to date, only—paper in *Nature*, I found myself creating detailed memos and checklists. At that time, checklists were primarily associated with pilots' pre-flight procedures. Studies were just beginning to demonstrate how surgical checklists improved patient survival rates, and companies were discovering the newly published ISO quality assurance standards.

Nowadays, the idea of a having a manual to document standard operating procedures is a common practice in aerospace, pharmaceutical, healthcare, and nuclear industries. I find it hard to understand why these are so hard to find in our academic labs. Are we not supposed to conduct our research to the highest standards of objective precision? Do you really

believe that research is a chaotic process where success depends on individual competence and heroic efforts, or would you prefer to live in a place with managed processes, where results can be repeated?

To me, the choice is clear. This is why, when I started to found my own research groups –first the Clean Energy and Sustainable Development Lab, then the Vietnam Initiative for Energy Transition Social Enterprise– I compiled all my notes into an organization Whitebook.

This guide directly derives from those Whitebooks, revised and updated to introduce you to the latest tools of the trade like AI models like ChatGPT, language checkers like Grammarly, HAL and Zenodo open archive repositories, the Zotero e-library manager, and more.

Are you the kind of person who likes to read books, and prefers clear step-by-step instructions over flowery prose? Me too. This handbook defines the way of the researcher through one-page practical notes covering key procedures. The content is organized in two acts. The first will guide you for high-quality scholarly work production, while the second will explain the behaviour of a scholar with excellence, integrity and kindness. These How-tos are quite universally applicable: academia has always been globalized. If you are looking for the *à la Française* part, head to the Entracte page 35 exposing the nuts and bolts of the French national research system.

While I recommend a cover-to-cover reading to have an idea of what a research career is like, the book is meant to be used as a quick reference manual: find the page for the task at hand, follow the steps, done!

I wish you an excellent academic career!

Minh

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Act I.   Quality production

Chapter 1
How to write quality manuscripts

Clear documentation is the foundation of scientific communication. This chapter provides a systematic approach to document quality, from basic identification standards to professional publication requirements. Starting with the essential rule that every document needs a title, author and date, we'll progress through increasingly sophisticated quality levels. You'll learn how to transform early drafts into polished manuscripts worthy of peer-review, with guidance on layout, style, and visual elements. The goal is to master these fundamentals so thoroughly that you'll know when and how to break them effectively.

Learn the rules, Master the rules, Break the rules.

How-to 1: Identify all documents

Anything you produce must have:

- Title

- Author

- Date

Apply this rule universally, from paintings to books, including emails, notes, memos, drafts reports, finalised reports, papers, tests, audio or video recordings.

Misidentified information cannot be archived and referred to conveniently later. It is not be usable in a rational, scientific debate.

Dating the document will help you manage the successive versions.

The next three how-tos define successively higher document quality levels. Choose the one relevant for the job at hand and stick to it.

How-to 2: Deliver a plausibly acceptable document

At that quality level, the contents may be genius or garbage, but at least the document meets minimal formal expectations.

- Well identified (see previous How-to).

- On-time

- On length

- Page numbers

- File format as requested and PDF

- Computer spell-checked

- All figures and tables have captions

- Author's affiliations

- Corresponding author email

- Encode any text file as UTF-8 and Unicode.

This quality level is appropriate when sending an early draft. The low standard makes it easier to keep the ball in play. It is a mistake to aim for a higher quality level, procrastinate and deliver nothing.

Good collaborators always meet this standard. At school, failing any of this is ground for a non-passing grade or a summary reject.

Time is of the essence.

How-to 3: Write a document carefully

A Master thesis, a scholarly manuscript, an expert report should have these qualities on top of the ones from How-to 1 and 2:

- File size minimal

- Summary or abstract

- Bullet list of main findings, take-home messages, highlights

- All figures and tables are referenced in the text

- English meaning clarity checked by another reader

- Typos, grammar, style copy-edited by a qualified editor

- No plagiarism: quote and attribute any copied sentence.

- Recorded permission to reproduce any external material

- Citations consistently follow a citation style

- Bibliography includes all and only cited references

- All references cited have author(s), title, year, DOI (Digital Object Identifier) or URL.

To test if your text is understandable, ask the first person to walk in front of your office to read it. Do not be afraid; this is what co-working is about. Even better if that colleague is not a specialist of your subject.

A copyeditor does not have to be human. Modern artificial intelligence language checkers, e.g., *Grammarly*, obsoleted Strunk and White's *Elements of Style*.

Use *Zotero*, a bibliography management tool (citation or reference management software), to ensure the last three points.

How-to 4: Write professionally

The expected level for a finalised PhD thesis, a submission to a peer-review journal, a highly professional consulting report, is How-to 3 plus:

- Always use styles to get entirely consistent documents (if you have never heard about word processing styles, learn it today.)

- Remove all direct formatting, white spaces trailing at the end of lines, empty blank lines.

- Number chapters, figures, tables, cross-references automatically.

- Internet links in the bibliography are active.

- Proofread the print-ready version on paper.

- Archive everything needed to reproduce results as supplementary electronic material: data files, model code, spreadsheets, questionnaires (e.g., Zenodo or HAL). Cite these supplements by DOI.

- Provide the high-resolution Figures files as separate files.

- Follow typographic guidelines, e.g., the *Manuel de règles typographiques en usage à l'Imprimerie Nationale.*

- Follow language style guidelines, e.g., *The Economist style guide* prescribes -ise, vs *Oxford English Dictionary* -ize.

- Score no less than 99/100 on *Grammarly.*

- Use the Système International (SI) for units.

- Include up to date computer-readable metadata in the file (e.g., File | Properties to set title, author, date, summary)

Break the rules to adapt to the audience, e.g., energy professionals use non-SI units gigawatt-hour and ton of oil instead of Joules.

How-to 5: Manuscript-improving tips

Well done! You wrote the "beta version", the first draft, with nothing missing. Here is how to progress to "release ready":

- Rethink the quality goal. Do you need it plausibly acceptable, quality written or professional? Verify using How-to 1 to 4.

- Reread everything. An easy way for that is to clean up the layout. Clear all manual formatting, use styles and edit the stylesheet.

- Consider moving the last paragraph of the manuscript, which sums up results, in the introduction.

- Write the takeaways messages. No more than five, under 80 characters each. What is your contribution to knowledge?

- Carefully rewrite the abstract, introduction, and conclusion. These are what people read most, yet what authors spend the least time writing.

- Change the title to describe the final manuscript finding, not the initial research idea.

Use large language models to help with the last three points.

After polishing details, to go back to the big picture, print it all and spread it on a table. The bird's eye view gives a fresh critical look at the outline. The unbalanced sections stand out.

Reorganize by moving around big chunks of content. Delete the weakest without mercy.

In a manuscript destined for peer-review: *if you have doubt about anything, fix it.* Believe in the reviewers to flag it and reject the paper otherwise.

How-to 6: Typography 101, staying safe with type

Word processors make it easy to produce quality documents but also easy to go wrong. Follow these rules until you really know better:

- Never use more than two typefaces on a page, and in this case, only a serif and a sans serif.

- Set vertical line spacing to 1.15 lines. In technical terms, set leading to 120% of the body copy size.

- Set font size and paragraph width at 50-75 characters per line for print and desktop, 30-40 for mobile.

- Use a font close to what the reader is used to see.

- Use a serif font on the web, modern displays have high DPI.

- Use white space liberally. Avoid separating lines.

- Avoid producing a full page of uninterrupted text (graywall).

For free serif fonts with international coverage, I recommend **Alegreya** and **Vollkorn**. Use **Times New Roman** or the free equivalent **Liberation Serif** as a fallback.

I recommend **Source Sans Pro** and **Lato**, where a sans serif is needed. As a fallback, use **Arial** or the free equivalent **Liberation Sans**.

When preparing an overhead presentation:

- The smallest text should be at least 24pt, or "*Age of the oldest person in the room, divided by two.*"

- Title font size should be 36-44pt.

How-to 7: Add copyleft, relevant and beautiful photos

Photos are precious to give an immediate understanding of a key message. Prioritize 1/ Clear reuse rights, 2/ Exact obvious scientific and technical relation to what the text says, and 3/ Esthetic qualities.

- Reuse an image only when you know its rights.

- Never reuse images from the internet without a license.

- Always mention the image's source, author, year and licence.

- The copyright attribution should be visually quiet.

You can find images with a clear copyleft by:

- Your photo collection or the supply of a colleague.

- Your team's or institution's photo bank, CNRS images.

- An open repository such as Wikimedia commons or cco.photo.

- A free repository such as Pixabay or Shutterstock.

- Creating them with an AI text-to-image generator.

Take photos when on a mission, field trips, site visits. Good images are worth archiving in your and your team's photo bank for further reuse. Archive them with the metadata (embedded or separate file) specifying author, year, place, license.

Also, upload perfect original research images on the CNRS photo bank. They will count as a "science dissemination" product for you.

You can publish images of recognizable people only if you have recorded their explicit permission.

Chapter 2
How to research

Research is a systematic process that transforms ideas into published knowledge. This chapter maps the complete research production cycle, from initial concept to final publication. While particularly valuable for new researchers, these fundamentals remain relevant throughout one's career. Special attention is given to literature review techniques, as mastering this crucial first step determines the quality of everything that follows.

Whether you're a Master's student starting your first project or an experienced researcher looking to refine your process, this roadmap will help you power through the research journey more effectively.

How-to 8: Activities in the research production cycle

Activities of our industry's production cycle:

1. Discuss the research idea over tea. Write the pitch.
2. Define the original contribution, data source, method.
3. Review the literature
4. Obtain and analyse the data
5. Write a detailed Technical Report and possibly a Data Paper
6. Outline then draft a Working Paper = manuscript for an article.
7. Review by select colleagues in-house, then revise
8. Present at an internal research seminar, then revise
9. Publish related Technical Report, Data Paper, Working Paper
10. Present to national or international conferences
11. Finalise, package the code and electronic supplements
12. Submit to peer-review and wait
13. Revise and resubmit

Active researchers have a portfolio of projects at different stages in the pipeline at any moment. Tip: priority goes to the most advanced.

Step 9 depends on the discipline. Pre-publication as working papers is standard in Economics, Mathematics, Physics and Computer sciences.

How would this fit in a three-month research internship? The supervisor would have done steps 1 and 2 before hand. The actual three months would be focused on step 3, 4 and 5 – one month each. If the research is successful, the work would go on.

How-to 9: Deliverables in the research production cycle

As a research idea advances through the stages of the production cycle, it manifests in these forms:

- On the back of an envelope or a café napkin. Really. An idea is only clear enough when it fits in one picture or sentence. Plus, scribbling on cheap paper unchains creativity.

- A research project note defining the original contribution, data source, method.

- After first data analysis: working code and preliminary results.

- First draft: Alpha version for internal review.

- Slide deck + second draft: Beta version for external review.

- Non peer-reviewed Technical Report, Data Paper, or Working Paper.

- Submitted manuscript and cover letter + Electronic supplements: annexes, data, code and results + Archived author's preprint.

- Reply to reviewers' comments + revised versions of the above.

You are a scientist when to you, the word "Article" means "publication accepted in a peer-reviewed journal", and it is one of your life goals. Sacred, hence capitalised.

How-to 10: Review the literature

You have a paragraph describing the research idea and a few relevant articles.

Your first goal is to know what has been done in this domain (results) and how (methods). Position your contribution at the frontier of human knowledge →
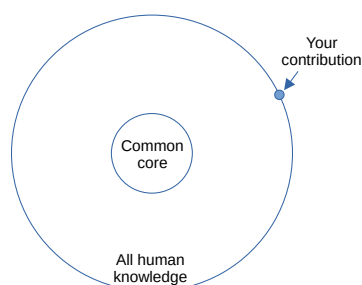
The literature review is a web crawl.

1. For each article you have, lookup its references. Use the article page on the editor's website (access by DOI) and a general search engine (Google Scholar) to discover AI-based suggestions of related articles. Search key authors / teams / conference sessions web pages for ongoing work.

2. Read the title and abstract of related articles. Click the likely ones into your Zotero e-library. Assess the contents and for exciting papers, write a reading note. See How-to: Get paywalled articles.

3. Repeat until you have collected seminal papers that everybody cites and the contributions at most recent conferences in the field.

A literature survey is sometimes sufficient, always necessary.

If I have seen further it is by standing on the shoulders of Giants.

How-to 11: Write a reading note

Writing the literature review is a big task. Break it down into a collection of smaller ones: writing reading notes.

A reading note has two parts. The first summarises the article or report, and the second provides your critical analysis of it. It concludes on its relevance for your work.

Writing reading notes trains you to produce carefully written documents:

- The title of the reading note is not the title of the article. The author of the reading note is you. The date is when you wrote it.

- A note is one or two pages. I assign a beginning student two articles or reports the first week. After that, capacities define the rhythm of the literature review.

- By the third week, I expect to see carefully written documents and a small but well-indexed Zotero e-library with its full texts database.

In research, reading means writing.

You are not paid for reading.

How-to 12: Self-archive electronic supplements in Zenodo

Zenodo is an open archive where you can deposit data, code, or technical documentation and receive a DOI for it. There is no peer-review.

A dataset must satisfy the following criteria before depositing in *Zenodo*.

- The title is unambiguous and meaningful, standing alone.

- The author is the person/organisation who has done the work (i.e. generate/collect data).

- The date is when the data was first released/published by the author (i.e. the date on the statistical yearbook).

- The description of data collection methods is detailed enough to allow another researcher to reproduce the results in principle.

- Each file of the dataset has a contents description.

When publishing on *Zenodo*:

1. Choose a community. I use *Vietnam Energy System Modeling*.

2. Include your hashtag in the data description, e.g., #VIETSE.

3. Verify that the correct type of upload is selected, the verify the language, author and publication date.

Chapter 3
How to use AI assistants

Artificial Intelligence has become an essential tool in modern research, offering powerful capabilities for literature analysis, writing assistance, and data processing. However, using AI effectively requires understanding both its strengths and limitations – when is it going to hallucinate.

This chapter shows you how to harness AI assistants as reliable research tools by providing them with proper context and maintaining appropriate oversight. You'll learn practical techniques for prompting, verification, and integration with your research workflow. The goal is to enhance, not replace, your scholarly work through responsible AI use.

Stay mindful of ethical considerations and institutional policies. Proactively read the AI use policy of your intended audience.

How-to 13: Discuss with a language model

Requesting a large language model to perform a task is known as "prompting." Here are tips for crafting more effective prompts:

- Use affirmative directives like "do," and avoid negative language. Avoid saying "do not think about Pikachu."

- Divide complex tasks into simpler, sequential prompts. First, request an outline of the report, then address each section individually. Model's replies are size-limited.

- Format the prompt in Markdown. Use blank lines to separate instructions, examples, questions, context, and input data.

- Assign a role to the model. Begin with "# Role: You are an expert content summarizer."

- Encourage deliberate thinking. Prompt the model to "consider each step carefully."

- Provide one or more examples of the desired response, if available. This is referred to as few-shot prompting.

- Foster dialogue. Enable the model to gather details and requirements by asking questions until it has sufficient information to provide the needed output.

- End your prompt with the start of the desired output. Models are trained to continue sentences.

- Use a ready-made prompts library like fabric or afforai.

- Use two models to critique and improve on each other.

- Request a model to enhance your prompt.

How-to 14: Prompt to summarize a paper

```
# IDENTITY AND PURPOSE:
You are an excellent academic paper reviewer. You conduct
paper summarization on the full paper text provided by the
user, with following instructions:

# REVIEW INSTRUCTION:
Summary of Academic Paper's Technical Approach
1. Title and authors of the Paper: State the paper's title
and authors.
2. Main Goal and Fundamental Concept: Begin by clearly
stating the primary objective of the research presented in
the paper. Describe the core idea or hypothesis that
underpins the study in simple terms.
3. Technical Approach: Detail the methodology used in the
research. Describe how the study was conducted, including
specific techniques, models, or algorithms used. Avoid
overly technical language that might hinder understanding.
4. Distinctive Features: Identify and elaborate on what
makes this research unique within its field. Highlight novel
techniques, applications, or methodologies that contribute
to its distinctiveness.
5. Experimental Setup and Results: Describe the experimental
design and data collection process. Summarize the key
findings, emphasizing significant outcomes or discoveries.
6. Advantages and Limitations: Concisely discuss the
strengths of the proposed approach, including benefits over
existing methods. Address any limitations or potential
drawbacks, providing a balanced view of its efficacy and
applicability.
7. Conclusion: Summarize the key points about the paper's
technical approach, uniqueness, and advantages and
limitations. Aim for clarity and conciseness.

# OUTPUT INSTRUCTIONS:
1. Only use the headers provided in the instructions above.
2. Format your output in clear, human-readable Markdown.
3. Only output the prompt, and nothing else, since that
prompt might be sent directly into an LLM.

# PAPER TEXT INPUT:
```

(Insert paper text here)

How-to 15: Polish text with an online language tool

The best tools are *LanguageTool* and *Grammarly.com*.

Free plans only cover the bases: spelling, grammar, punctuation. Premium subscriptions are worth it for a writing professional.

Install a web browser plugin to correct your language on web forms.

Choose *Grammarly* if you need to polish long English word docs. Choose *LanguageTool* if you work with multilingual and Libreoffice texts, it is also cheaper and more open-source.

The procedure to fix a long Libreoffice document with *Grammarly* is:

- Upload it at app.grammarly.com.

- Edit it online.

- Download the corrected file, with the "*.edited.odt*" extension.

- Open the original file and use "Track changes | Compare document" to pull in the changes from the edited version.

- In the "Manage changes" dialogue, click *Accept* to keep old or *Reject* to take in new edits (the diff is inverted). Accept the old version of crossrefs, titles, indexes as Grammarly destroyed them.

How-to 16: Prompt to polish an academic text

```
**Role:** Academic Writing Expert

**Objective:** Refine the provided text to conform to
academic writing standards, ensuring clarity, coherence, and
ease of understanding.

**Instructions:**

- Correct any grammatical errors.
- Enhance clarity and coherence.
- Employ formal English exclusively.
- Utilize clear and concise language, avoiding jargon.
- Eliminate wordiness and redundancy.
- Ensure all statements are relevant and contribute to the
overall meaning.
- Apply all revisions directly to the text.
- Preserve the original meaning and intent.

**Output:**

- Revised text adhering to professional academic writing
standards.
- A concise list of specific changes implemented in the
text.

**Input:**
```

(Insert text for refinement here)

How-to 17: Leverage AI for data analysis

Leverage AI to enhance your data analysis. The capabilities of Large
Language Models (LLMs) include:

- Code Generation and Assistance: Ask them to generate code for
  data analysis tasks, reducing the time spent on coding and
  debugging. Tip: Nobody should code without AI help. Tip 2:
  Beware that the model's knowledge of a library can be several
  versions late.

- Claude's Artefacts or ChatGPT's Canvas offer a no-code approach
  to data cleaning, visualization, and statistical analysis. These
  models know popular data analysis libraries like pandas or polars
  in Python.

- Hypothesis Generation: In the exploratory phase, AI can suggest
  potential hypotheses or research questions based on existing
  data.

- Use APIs to integrate LLMs directly into your data analysis
  environment, enabling seamless interaction and workflow
  automation. Tip: They are great for summarization, corpus
  analysis, sentiment analysis, classification.

- Use AI to incorporate results into text and format it into various
  styles, making it easier to keep an up-to-date technical report.
  Tip: Models' preferred style is Markdown.

Chapter 4
How to manage your e-library

Managing scholarly literature is a core research competency. As your work advances, you'll need to handle hundreds or thousands of scientific articles efficiently - storing, retrieving, indexing, and citing them accurately. While beginners might start with manual citation management, investing time in mastering a proper e-library system becomes essential as your research deepens.

This chapter presents a systematic approach to building and maintaining your personal research library using *Zotero*, the leading reference management tool. The principles presented here will serve you whether you use Zotero or alternative tools, helping you transform an overwhelming flood of papers into an organized, accessible knowledge base.

How-to 18: Access paywalled articles

To obtain the full text of an article, you should know its DOI, or the authors – year – title.

1. Search your and your team's group (≈supervisor's) library.

2. Search your institution's library: ENPC, CNRS.

3. Google it. The first result usually is for the publisher's website. If your boss has paid access fees, you may see something like « Brought to you by: ***» instead of a price.

4. Google Scholar results appear above organic results. Non-paywalled PDF may be listed as *other versions of the article*.

5. Download from Sci-Hub. It is a cat and mouse game. Ask around if https://sci-hub.se/ works. Check r/scihub. You may have to use duckduckgo, a VPN, or the Tor browser.

6. Ask colleagues orally, by group chat (e.g., slack), by mail.

7. Ask by mail to the corresponding author.

8. Go to the National Library or a university library. Librarians are kind and happy to help.

After you get a paper, archive the copy in the group library.

Required logins are / should be provided as part of the onboarding procedure, with your lab's Welcome Booklet.

How-to 19: Manage documentation 1 - use an e-library

Back in the 20th century, we had shelves full of paper articles. Now we use e-libraries to store metadata and full-text copies of documents. Key advantages are: 1/ A web browser plugin automagically import articles from the web, and 2/ A word processor plugin takes care of citations and bibliographies.

- Add a copy of anything you cite into your e-library. Storage is cheap, so archive the full PDF, not just a reference.

- Add anything you publish yourself to your library.

- Add all documents you find interesting to read, even if you do not cite them.

- Add only static contents: documents that will not change.

It is still useful to collect PDF related to an ongoing research in a manuscript's working directory:

- Store them together in a *temporary* subdirectory named ./doc.

- Move them into the e-library as soon as possible.

Use the *Zotero* e-library. Files can be a/ on your computer, b/ stored online in a "Group library", or c/ both, which is better. Zotero is open source and free up to 300MB of online storage. Tip: I pay $120 per year for the unlimited storage capacity, after 30 years I use about 16Gb of storage.

Do not store Audio/Video content in the e-library. You would not retrieve oversized luggage on the carousel at the airport either.

My library is a shared Group Library, but I do not provide access immediately to any intern. A new user should qualify by first practising on their own local Zotero library – their sandbox.

How-to 20: Manage documentation 2 – know the core fields

Zotero automatically indexes documents with a Digital Object Identifier (DOI) or an International Standard Book Number (ISBN). Use this How-to when you have to type in the metadata yourself.

Always index at least Title, Author, Year, and Identifier. Copy what is printed on the document itself with the following considerations:

- Year: Use the ISO format YYYY-MM-DD. Drop the month and day if unknown.

- Title: Use standard sentence capitalisation, never ALL CAPS.

- Author(s): Use a unique name for an author in a database. Use the original national form with accents rather than ASCII.

- Identifier: a journal article's DOI, a book's ISBN, a web page's URL, an eprint's unique identifier (HAL ID, ArXiv ID), a technical report or an administrative document Number.

Find documents using full-text search plus sorting by date added, date, creator and title. I do not bother with manual tags (Keywords), I believe in full-text search. Related: fields can be used to link documents.

I group documents about the same research project by collections. A Zotero collection is not like a folder but works like a playlist:

- One document can be in many collections at the same time.

- Removing an item from a collection does not delete it from the library.

A database is made of rectangular tables, not tree-shaped like a filesystem.

How-to 21: Manage documentation 3 - Document types

Here are the keys to determining a document type:

- Book has an ISBN.

- A book section is part of a book with a title or number.

- Presentation, Conference paper has a place and date. Presentation = slide deck, Conference paper = like an article.

- Journal Article: published in a peer-review scholarly journal, should have a DOI if recent. Volume can be "Online first."

- Magazine article, Newspaper article: not peer-reviewed. It can be online only.

- Web page: Not for blog posts, online magazines or newspapers.

- Bill, Statute: a Bill is a proposed law; a Statute is a law voted by the National Assembly (Ministries do not make laws).

- Report: material published by an institution. It has a Number and a Type. Spell out the institution's name in full. Index as Author the name of the people who signed it or wrote it, or the institution's acronym. Use the URL of the institution that officially published the report. I use this for governmental Decrees, ministerial Decisions, not for Laws.

- Letter, Encyclopedia Article, Interview: self-explaining.

- Manuscript: for unpublished personal communications.

- Web page, Document: when nothing else fits.

How-to 22: Manage documentation 4 – e-library hygiene

Wiktionary.org defines *bitrot* as "the putative tendency of content in storage to become corrupt over time". All databases should be cleaned from time to time – a good activity for a low-energy day.

Metadata normalisation involves:

- Find and add the missing "Creator" or "Date" fields.

- Rewrite dates in ISO format YYYY-MM-DD, YYYY-MM or YYYY

- Unify organisations names, expanding initials or acronyms.

- Unify author names, in the original language.

- Capitalize only the first letter in the title.

- Verify that all *your* publications are included and up to date.

Deduplicate. Check the "Duplicate items" collection at the bottom of the left panel. Verify for false positives (the detection algorithm is simplistic), then merge real duplicates (instead of deleting records).

Until *Zotero* gets properly multilingual, I use these kludges:

- Index in the original language.

- Translate the title in the Abstract field.

- Attach both the original and translated versions to the same record.

Entracte

Chapter 5
The French research landscape

After mastering the technical skills in Act I, let's explore how research actually works in France. You might be surprised - even many French researchers do not fully grasp the interplay between universities, research agencies, and grandes écoles, or the unwritten rules of French academic culture.

This chapter maps out not just the institutions and career paths, but also the social codes and professional practices that shape research life in France. For both international and domestic researchers, these insights will prove valuable throughout your career, from choosing the right position to building lasting professional relationships in French academia.

Note 23: The French research institutions

The French research landscape is organized around Establishments (Établissements), which are permanent organizations with enduring legal existence. There is a clear distinction of roles:

- Public research agencies like CNRS (Centre National de la Recherche Scientifique) or INSERM (Institut National de la Santé et de la Recherche Médicale) concentrate on research excellence.

- Mass universities like Université Paris 1 Panthéon-Sorbonne handle broader higher education.

- Grandes écoles –smaller, highly selective schools like École Normale Supérieure (ENS), École Polytechnique (X) or the HEC business school– focus on training future leaders.

Most research happens in Mixed Research Units (Unités Mixtes de Recherche, UMR) which are laboratories jointly operated by multiple establishments, for example a university and CNRS.

For your daily work, this means:

- Researchers from different institutions work side by side, but your institutional affiliation impacts your status, resources, pay scales and career advancement paths.

- Access to more resources but also more complex administration. Projects can require approvals from multiple establishments

- Building networks across establishments is essential, as is understanding each institution's culture and procedures in relation to its main mission.

Note 24: Research careers à la Française

The French system has two main research career tracks:

- Enseignant-chercheur (Professor-researcher) work of a university. They combines teaching and research duties, the teaching load is ~192 hours per year. Recruitment is a two steps process: national qualification then local competition. Enseignant-chercheurs have two ranks: Maître de conférences (Associate Professor) → Professeur (Full Professor)

- Chercheur (Full-time researcher) work for a research organization like CNRS. They focus primarily on research with no teaching obligations, the recruitment is direct through national competition. Chercheurs have two ranks as well: Chargé de recherche (Junior Researcher) → Directeur de recherche (Senior Researcher)

Key aspects of the French system:

- Positions are typically tenured from entry.
- Salaries follow national civil service scales.
- Recruitment is highly competitive.
- Internal promotion is based on research achievements
- Mobility between institutions is limited after recruitment.
- Researchers have guaranteed academic freedom of speech.

Career development is by evaluation from the peers. Committees look for a strong publication record, securing research funding, contributing to institutional responsibilities, developing international collaborations and supervising PhD students.

Note 25: The European higher education progression

The French higher education system follows the European LMD (Licence-Master-Doctorat) model aligned with the European Credit Transfer System (ECTS). One academic year represents 60 ECTS credits, with one credit corresponding to 25-30 hours of student work. The system facilitates international mobility as credits are recognized across Europe.

The Licence is a three-year undergraduate degree (L1-L2-L3) worth 180 ECTS. While some universities offer open admission, selective programs exist particularly in the grandes écoles preparatory classes. Most science and engineering students hoping to enter top schools prepare intensively in these "prépas" instead of pursuing a Licence.

The Master's degree requires two additional years (M1-M2) and 120 more ECTS credits. Admission is selective, with programs offering either professional or research orientations. The M2 year often includes a 4-6 month internship or research project. A research-track Master's is typically required before pursuing a doctorate.

The Doctorat (D1-D2-D3) is a three-year research degree organized through Doctoral Schools, which are administrative entities within universities that coordinate PhD programs. These schools manage funding allocation, provide specialized training, monitor student progress, and ensure quality standards. Getting familiar with your Doctoral School's requirements and resources early in your PhD is essential.

For international students: courses at the Licence level are mainly in French, some Master's and PhD programs offer English instruction, especially in scientific fields.

How-to 26: Work like a French

French research culture combines high intellectual standards with distinctive, sometimes unwritten, social codes and professional ethics.

Use the formal "vous" unless specifically invited to use "tu". Alumni from the same school with less than ten years difference use "tu". Address professors and senior researchers as "Monsieur" or "Madame" + last name until a closer relationship develops. Titles like "Professeur" or "Docteur" are rarely used in daily interactions.

Intellectual integrity is paramount. The French system values rigorous thinking and original contributions. Compared to Asia, critical discussion is much more encouraged. In seminars, tough questioning is normal and seen as a sign of interest, not hostility. Never hesitate to admit what you do not know - pretending to know is worse than ignorance.

Work-life balance follows French cultural norms. Standard workdays run 9:30-17:30, though many researchers work longer. The day starts later in Paris, earlier in the Province. Taking a proper lunch break (12:30-14:00) is normal - skipping lunch to work may be seen as antisocial. Summer vacations are sacred, France is essentially closed between July 14th and August 15th. Working weekends should be exceptional, not routine.

Laboratory life has important social dimensions. Alcohol is prohibited at the workplace, only boomers have wine at lunch. Informal exchanges in shared moments like coffee breaks and team lunches build essential relationships. Contribution to common tasks like cleaning shared equipment or organizing seminars is expected. It is okay to bring treats to share on your birthday and send postcards from travel.

Note 27: A humanist way to excellence

There are many roads to excellence. Confucius taught the importance of reflection, humility, and perseverance, encouraging individuals to seek wisdom and cultivate virtue as paths to excellence. A. Schwarzenegger's rules of success are "Believe in yourself – Break the rules – Don't be afraid to fail – Ignore the naysayers – Work like hell – Give back." Research excellence à la Française follows humanist values.

Who better than Voltaire, the prominent French Enlightenment writer, historian, and philosopher known for his wit and advocacy of civil liberties and religious tolerance, whose ideas greatly influenced the development of modern thought and the French Revolution, to illustrate these values?

To conclude this *Entracte*, I would like to pass on his classical poem about happiness, as evidence that systematic attention to life's fundamentals has always been part of the French intellectual tradition.

What One Needs for Happiness

One needs to think; for without thought, man becomes,
Despite his soul, a common beast of burden.
One needs to love; 'tis what sustains us hence;
For loveless life doth make man's heart most leaden.

Sweet company one must acquire and keep,
Of learned folk, wise souls without pretence,
And pleasures varied, rich and wondrous deep,
Else days drag longer than good sense portends.

A friend one needs, whom at all times we may
For counsel seek, and listen with good measure,
Who can restore, when spirits go astray,
Less grief in pain and greater joy in pleasure.

At eve, one needs a supper most divine,
Where freedom reigns, and all may taste their fill
Of dainty fare, good wit, and better wine,
Yet leave the board ere drunkenness doth spill.

At night, 'twixt sheets of finest linen laid,
One needs to hold the object of desire,
With tender touch till sleep doth softly fade,
And morn brings forth renewed passion's fire.

Voltaire, XVIIIe
Translated from the French by Claude

Act II.   Win the reputation game

Chapter 6
How to join a research group

Getting hired at a lab involves much more than technical excellence. With your STEM skills proven by grades and tests, what matters now is showing you can work within a research team's culture and contribute to its scientific goals. This chapter details each step of joining a lab: from your first contact with potential supervisors through the application process to your successful integration into the group.

How-to 28: Setup a doctoral project

Putting together a thesis is always a miracle since one needs to align four stars: a supervisor, a candidate, a subject and funding. And funding is requested depending on the subject and the candidate, preferably before the master's internship begins.

Every professor is always open to meeting an excellent potential collaborator. The subject may take a few weeks of reflection, but we can always find a tailor-made, motivating and accessible research topic.

Hiring requires a cost-benefit analysis: The scarce resources are money and attention. Office space is always tight, but not a real issue. The benefit is the prospect of a peer-reviewed scientific publication – or three for a PhD.

- As Master 2 internships begin in April/May, the high recruitment season is December/January.

- Ideally, PhD candidates have discussed their doctoral project with a lab before starting their Master 2 in September. Use a gap year, summer internship, or short training to be known.

- Before contacting a potential supervisor, a candidate should look at their publications. We will google you too.

- Then approach the researcher in person, after a class or a scientific seminar.

- When applying spontaneously by email, follow up by phone within 15 days.

- I do not answer anonymous contacts sent via the "contact us" form on the lab's website. We do not follow up either if the French or English is incorrect.

How-to 29: Assemble a complete application

A complete job application should include:

- The motivation letter. It can be the cover email. Your field of interest is essential. If it does not match the supervisor's, there was insufficient effort to prepare the letter. The letter must also explain the institutional and financial framework of the internship, its duration, and what you want to do after – A PhD or not?

- CV. I prefer PDF. You will lose one geek point if you send me a .doc file. Win one culture point if your CV has a "Selected publications" section.

- Recent Grades. With quantiles or ranks. Academic excellence means being top of your class. Only a top third Master's student should consider doing a PhD.

- One personal production. Or two. Group works mean nothing. I want to see your capacity to write a quality manuscript. Have you produced a text significant enough to be published on the web with your signature? Show it!

- Recommendations. Recommendation letters are optional in France, but will be accepted as it is a standard practice in the academic world. They are formal and confidential documents. They are not addressed to you but to the decision-maker for your application, so you should not read them. When asking someone to write a recommendation for you, it is polite to offer to provide the first draft.

Bonus point(s) if you have a non-zero LinkedIn / ResearchGate / Google Scholar profile or an internet homepage.

How-to 30: Onboard in person

Ask for the onboarding documents package. After a welcome café with the supervisor, overview the package with them. Here is a typical list of what to do in person:

- Sign work contract.

- Discuss the group mission, values and code of conduct.

- Discuss and sign the internal regulations.

- Receive your office key.

- Receive wifi login.

- Tour the facilities.

- While touring, introduce yourself to everybody. That means not only your name, but also what you will be researching.

- Procure necessary IT hardware, proper seating and desk. That should have been negotiated before signing, but it may take time to arrive.

Procuring business cards is more an Asian thing, but they are *daté* for French academics, especially those interested in the responsible use of natural resources.

The last item is to integrate the group on an animalistic level: share food. Teams should organize conviviality moments, a weekly *gouté* for example. Newcomers can then bring a hometown specialty at the weekly common meal.

@Team manager: Organize such regular conviviality moments.

How-to 31: Onboard the team's IT

The onboarding checklist also charts the integration into the group's digital infrastructure such as email, calendar, chat, web, file sharing, kanban, e-library. The list can include:

- Update affiliations: LinkedIn, RepEc Authors Service.

- Give a picture and a short bio to create your public profile on the team's website.

- Subscribe to the group electronic agenda.

- Receive login on the file-sharing system, filesystem visit, test download and upload files.

- Discuss access to the group e-library.

- Get a task assigned and done in the project management.

- Answer an email sent at your team address.

- Join the instant messaging chat group.

- Install document templates.

- Print a sample page.

- Test backup and recovery process.

- Read the recent team meeting reports.

@Team manager: Customize the list according to your practices.

How-to 32: Keep colleagues friendly

You are in the team to co-publish articles and research papers. Proper signing etiquette is critical to keep good relations with colleagues.

- Signing authors should be those who had a significant contribution to the research.

- Significance depends on the cultural environment, the discipline and the lab.

- The meaning of the order is also culturally dependent. In Economics, the principal author signs first, supervisor last.

- When the first author signs paperwork on behalf of all authors, they should ask by email to everybody if they agree. To avoid blocking, I always add that I will respectfully take no reply as implicit yes after X days.

- Discuss and agree on signatures early on before starting the research. Consent to coauthor must be explicit. Do not add people without asking.

- Revisit authorship before submission. Those who did not contribute significantly should say so. If not coauthors, they can be named in the acknowledgement section. Alternatively, they can sign on a line below the regular authors after the mention "Contributing authors:".

- Use the acknowledgement section to explicit who did what.

- Authors should note as affiliations the organizations that significantly supported the work.

Everybody makes social mistakes. Open and early discussion is the fix.

Chapter 7
How to present your work

Science advances through constant exchange within research communities. Whether at lab seminars or international conferences, your ability to present ideas clearly and engage with colleagues determines your impact. This chapter equips you with proven techniques for effective scientific presentations, drawn from decades of experience in energy research. Yes, your first major talk might feel daunting - but remember that this is normal and expected.

I was very stressed at my first conference, flying out to Florida to meet the world's gas energy luminaries at the age of 23. It turned out fine, people were surprisingly nice to to me. I learned that the academic community has a strong tradition of supporting newcomers who show genuine interest and competence in their field.

They traveled across the seas to hear you, you owe them your best.

How-to 33: Choose a venue to present

There is a ladder of venues to present your work. The lower steps are suitable for work in progress, the higher steps have a wider audience. Aim to climb the ladder in this order:

- Discuss outlines and preliminary results first to your co-authors, your peers in your research group, and your supervisor.

- Present work in progress at your lab research seminar.

- Present working papers at other labs' research seminars.

- Present manuscripts at national, then international, conferences.

If you are invited to attend a meeting, consider these points:

- The one organized every year by the well know association or professional society in the discipline is serious and worth your time, if not always your money.

- Workshops organized by a fellow research institution or by a project's consortium are usually about 10-20 attendees. Say yes if you are invited and the aim is a joint declaration, position paper, or collaborative project idea. Think twice if it is a final dissemination workshop: go if you want to meet people.

- Distinguish a scientific conference, where academics meet up, from a trade show, where companies showcase their innovative products – the organizers like to be ambiguous.

- If you receive an email about your excellent research, asking you to present it at a very important event coming soon: this is a scam. They will tell you later that there are registration fees and offer you a good discount.

How-to 34: Pack your conference bag

Bring the following documents for any travel, electronic AND paper file.

- Ordre de mission / travel plan itinerary.

- Receipt of paying the registration fees, if any.

- Transport tickets.

- Plan for transfer from station/airport to hotel/homestay.

- Accommodation receipt with reservation number and address.

- Travel document: passport, health certificates.

For a conference, also bring:

- Business cards (still popular in Asia) with QR code vCard.

- The programme, with location, meeting point.

- Book of abstracts. Only take the electronic version.

- Brief of your session. Day, duration, time of your presentation.

- Name of session chair and other speakers.

- Your presentation's title and summary, as announced to the audience.

- Hardcopy of the manuscript you present.

Never engage an expense without knowing its refund regulations.

If your lab pays for the mission, use their procedures to buy travel and accommodation – do not buy yourself even if it is cheaper.

Check the weather forecasts before packing. Always bring swimsuit.

How-to 35: Attend a conference

Conferences are social events:

- Mark people you want to see in the list of attendees.

- You can skip formal opening speeches, but do attend the keynotes. These are icebreakers to engage fellow attendees.

- "What are you interested in" means "Pitch me your paper".

- It is permitted to: Stand up at the back of the room, Switch rooms between two talks, Meet people in the lobby during the sessions.

- You do not know anybody the first time. But it is a community, so you will eventually ~~drink with~~ befriends colleagues. Socialising tip: Hang out in the conference hotel lobby after hours, your conference badge visible. Any party going out will be supposed to invite you to join (*party* meaning *group of people*).

- Real-time tweeting and LinkedIn reporting are appreciated.

If you speak:

- Introduce yourself to your session Chair as early as possible. The welcome party is appropriate.

- Send your slide deck the night before. Make three copies: organisers, session chair, your USB key.

- Half an hour before the session start, check with technicians that your slides work. Remind Chair how to say your name.

- Rehearse your talk as much as necessary to fit the time.

- Do not fear questions. Nobody knows the subject matter better than you do. Most will be basic clarification questions. Joker: "Thank you, let us talk after the session."

How-to 36: Wrap up after an event

The convention to approach a speaker after their talk is to compliment them on how interesting it was. That is not flattery but politeness. Hear what they want after that.

After or during an event:

- Send a meeting report for the colleagues. I write it in real-time during the sessions.

- Paste business cards in your work notebook, send out promised papers and do other follow-ups.

- Download and archive the electronic proceedings. Read any exciting communications you missed.

- Update your list of publications and HAL with your presentation.

- Post about the conference and your talk on LinkedIn and Twitter.

- Cleanup the mission directory and move it to "mission/done".

- Check the next How-to to ensure refund of travel expenses.

How-to 37: Get refund of expenses

As a team member, you shall:

- Prepare an estimated cost if you ask to go somewhere. For a conference, provide justified estimates of the transportation costs, accommodation costs, and registration fees.

- Fill out your mission expense report asking refund.

- Provide original receipts of any expense you claim a refund. Bills have to show the VAT amount.

- Fill out personal timesheets if you work for a project that requires them.

You should also know that:

- You need a signed formal agreement before going anywhere on someone else's expense. This is called an Ordre de Mission. For CNRS, the forms are at https://etamine-connecte.cnrs.fr/infos.

- To convert currencies for the French administration, use the official taux de chancellerie.

- French public institutions do not refund more than the official barême des frais de mission.

The general rules with spending money are "ask before", "keep a written trail", and "follow the regulations". It takes bureaucratic skills to determine the applicable regulations and who to ask, so be kind to yourself and others. Public money spending must be controlled tightly for obvious reasons that need no reminding here.

Chapter 8
How to Publish

Publications in peer-reviewed academic journals distinguish Researchers from experts, analysts or consultants. Publishing is how we contribute to humanity's body of knowledge. This sacred responsibility demands our highest commitment to:

Integrity - The scientific record must be trustworthy. Every claim requires data and rigorous analysis. We cite meticulously, give credit where due, and acknowledge limitations. We correct errors promptly.

Excellence - We push beyond "good enough," making each paper as clear, thorough and meaningful as possible. The peer-review process helps achieve this standard through iterative refinement.

Bienveillance - Goodwill toward editors, reviewers, and readers guides our interactions. We write clearly to respect readers' time, express gratitude to reviewers, and provide constructive criticism aimed at improving the science, not attacking the scientist.

This chapter explains how to choose journals, prepare submissions, and handle revisions while keeping these core values in focus. You will see how integrity, excellence and bienveillance advance both your career and the scientific enterprise.

How-to 38: Choose journals to submit to

Prepare a hit list with five journals ranked most desired first. If one rejects the paper, your priority is to resubmit it quickly down one step. To prepare the hitlist: 1/ Include the journals cited in your bibliography, 2/ Ask a generalist AI and the specialized Clarivariate's "Match Manuscript" tool. 3/ For ranking, growing and filtering your hitlist, use online journal selectors at the academic-accelerator, Clarivariate, or Letpub.

- Publish to be read and cited. Getting more cites is more important than getting in a highly ranked journal.

- Aim to publish works that receive more citations than your *h* index (see How-to 46: Formalize your communication strategy).

- Prioritize journals indexed in Web of Science (previously known as ISI journals) or Scopus. The latter is more comprehensive than the former in humanities and social sciences.

- Never publish in a paying journal; 95% are scams editors with fake reviews. Only top tier journals listed below can charge author processing charges (APC).

- Talk to a colleague who published in your target journal, see the list of recent CIRED articles.

For Economists, prioritize journals listed both in:

- RePEc. Those count for RePEc rankings.

- La liste des revues en économie de la section 05 du CNU (ex Liste de la section 37 du CNRS). Warning: Some traditionalists dismiss articles published in non top-tier journals as unworthy.

The top scientific journals are *Nature* and *Science*. The top economic journals are *AER*, *Econometrica*, *JEL*, *JPE*, *QJE*, *MS* and *RES*, Amen.

How-to 39: Submit a manuscript

The first author sends the manuscript. Before sending:

- Sleep on the finished product overnight.

- Get the green light from all co-authors.

- Produce an archive file with everything needed to reproduce results: raw data, scripts, processed data, code, documentation. Then rebuild the paper, figures and tables from that file.

- Tag the release in the source control, package the files on Github.

- Archive data, code and results on Zenodo.

- Archive a copy of the submitted material as read-only files.

- Write the submission letter. Emphasize originality, policy relevance (if it's the journal angle).

- Find out the editor name and address the letter nominally.

- Assign an active corresponding author, to not trust the journal to Cc: a managing author.

Do check plagiarism before turning in your prose. All modern manuscript submission systems have an automatic similarity threshold barrier.

For initial upload to the editor's submission system, a single PDF is generally accepted. Later you may have to split the manuscript into many files for abstract, highlights, text, tables, figures and supplements.

How-to 40: Self-archive the preprint

In Economics, it does not count as prior publication:

- To release working papers before peer-review.

- To archive the submitted version at the author's home page.

- To deposit the manuscript in the author's institution's open archive repository (HAL).

To keep science open and public, do:

- Make a standalone author's preprint PDF with French abstract and keywords and own formatting.

- Archive that author's preprint on HAL.

- Update your list of publications, referencing that unpublished author's preprint in HAL.

- Consider early release as a working paper in a reputable collection (i.e. listed in SSRN).

- Move the working directory from "papier/actif/" to "papier/sent".

- Send co-authors an electronic copy of the submitted PDF, the author's preprint, and all source files.

If an editor is unhappy with this:

- Push back, politely explains them the customs in our field.

- Choose a different journal.

- In HAL, set an embargo period for the full-text release.

How-to 41: Revise a manuscript

Congratulations, the managing editor sent you a "revise and resubmit" decision.

- Move back the paper's directory to "papier/actif".

- Concatenate all reviewer's comments in one document. It will become your detailed reply to reviewers. Each comment gets one paragraph, and your response appears under each paragraph. Use paragraph styles to distinguish comments from your responses.

- Set a goal to answer a few comments per day.

- Start by answering the easy comments.

- You do not have to accept all comments. When you reject one, your answer has to convince the editor, not the reviewer.

- If reviewers contradict each other, it is the Editor's job to help.

The deliverables are:

- Revised manuscript

- Revised manuscript with changes highlighted

- Detailed reply to reviewers

- Resubmission letter to the editor.

These practices apply among collaborators, albeit less formally. If I give you comments on a manuscript, I expect to hear what you made of them before asking for another round.

How-to 42: Clean up after acceptance / publication

Hurray! The editor accepted the manuscript. You may now call it an Article.

- Inform co-authors.

- Update the author's draft to say "Accepted in...".

- Update your list of publications.

- Update the metadata in HAL. Some journals may permit to archive their reprint in HAL.

- Add the full text of the published version to your and your team's publications database.

Cleanup the manuscript's directory:

- Index and archive into the Zotero database all supporting material not already there.

- Delete the obsolete drafts, text fragments, contributions.

- Move the directory from "papier/sent/" to "papier/published".

Chapter 9
How to optimize your personal brand?

Your scientific reputation grows through every interaction - from conference presentations to social media posts, from teaching to public lectures. Getting cited matters, but so does being found and remembered by colleagues worldwide. This chapter offers practical techniques for increasing your research visibility and professional recognition, going well beyond the basics of maintaining a publication list.

How-to 43: Choose a pen name and own your ORCID

Choose a way to write your name and stick to it. For example I sign Minh Ha-Duong, since most computer or human can parse Hà Dương Minh.

- Most legacy western name-processing systems use a schema with two boxes: given name and family name. Be consistent on how to map your name into this schema.

- Consider using - the hyphen, a punctuation mark used to join words.

- When in doubt, which is often in a multicultural context, underline the family name part or set it in bold. Using SMALL CAPS is last century. Only ISO does it (see the quote below.)

- Make sure your pen name works decently in multiple languages and without diacritics.

Even so, your pen name does not identify you, it is not globally unique. Your email is unambiguous, but not lifelong. Many organizations issue you a persistent unique identifier.

- A publishing researcher's widely used identifier is their 16-digit number ORCID, or *Open Researcher and Contributor ID.*

- Make sure you have only one ORCID. Your profile page at https://orcid.org should link to all your emails. If not, deprecate the duplicate(s).

- Other identifiers important for a French researcher are its idHAL, its GitHub username, and its disciplinary archive identifier, e.g., its RePEc Short-ID for economists.

The ISO 3103 standard tea brewing time is six minutes.

How-to 44: Archive all your productions

In the scientific context, a *publication* usually means a peer-reviewed scholarly article. More generally, a publication is something someone made public for others to know, at least once. It can be written, spoken or visual. It includes but is not limited to books, thesis, articles, chapters, working papers, manuscripts, syllabus, course plans, presentations, posters, blog posts.

Making public means communicating the information to an audience open in principle, even if very few people attended: in a scientific journal (even pay per access), at a seminar where anybody could access (even by paying), your PhD defence, an open archive.

Production means something you finished making, published or not–for example, a confidential referee report or technical expertise report, a project proposal, or a recommendation letter.

Maintain an archive of all your productions, including but not limited to your academic publications, that is:

- Private.

- Secure in the long term.

This archive should contains the source documents in editable form. It is your basis for doing further derived works. It is also your reference to prepare annual reports and CVs.

My archive is not my list of publications: my filesystem is the archive. The metadata is in the file and directory names. They include the production year, the location for presentations, the receiver for reports.

How-to 45: Use internet and social networks

Too many social networks compete to host your list of publications. You control the first two. The others harvest with a robot.

- [Homepage](#) on your domain name. Hosting is cheap, about €12 per year. The cost is in the time to maintain the page. Worth it if you are in research for the long run.

- [HAL](#) is the national institutional open archive. Mandatory use in France. Most universities and research institutes should have one such repository.

- [RepEc](#) is the economists' open archive. It provides rankings.

- [Google Scholar](#). It provides bibliometry.

- [Researchgate](#).

- [ORCID](#).

All require initial registration and periodic maintenance.

- Set up your name and name variants.

- Remove falsely attributed publications.

- Deduplicate by merging different versions of the same document. That can sometimes bump your h index.

Pages on a project, team or lab website are unsuitable because they live much shorter than you. Pages on [LinkedIn](#) are only for posting as an expert, not as a researcher's.

Other networks are not about scientific research communication.

How-to 46: Formalize your communication strategy

You get known by citations to your works. Works get cited when they are original, meaningful and published in quality journals.

You also get known by teaching, attending events like conferences, workshops, seminars, and posting on social networks.

All your communications participate in building a personal brand.

A communication strategy is a slide deck answering:

- What are the short term and long term communication objectives? Reputation as a scientist? As an expert? On which topic?...

- In which kind of journals will you publish? national/international, specialised/disciplinary/generalist, academic/professional press/general audience.

- On what other channels you will communicate? Which social networks? Books?

- Who is the target audience for these channels?

- How much communication activity do you target? Papers and conferences per year? Other Key Performance Indicators?

*Your h-index is the largest number h such that
h articles have at least h citations each.*

How-to 47: Accept an interview request

It is okay to:

- Go for it. An expert is just someone who claims to be so.

- Be reactive. Journalists work for the next edition of their journal, not by academic time. They do not have much time; therefore, they won't take much of your time.

- Check who asks. A good journalist sends you references to their papers when asking to interview you.

- Ask for a delay and call back. Five minutes for radio/TV, fifteen for press.

- Ask for the angle, the audience and some questions in advance. Radio/TV interviewers usually discuss the questions informally to rehearse before recording.

- Ask to check the framing in the control room of the TV set.

- Ask to see the text, promising to not edit it but only check your facts. Your words will be cut, tolerate journalistic fixes.

Interviews must be prepared.

- Decide what is the message *you* want to pass.

- Ask ChatGPT to provide ten questions "in the style of the XXX talk show", print them, draw papers and practice answering randomly.

After the interview: send a thank-you email reminding your main message. If necessary, orally remind academic peers that media outreach contribute to the greater fame of the discipline, but clarity comes at the price of simplification overlooking details and nuance.

Chapter 10
How to speak

Speaking about research demands different skills for different audiences - fellow scientists need precise technical details, students need clear explanations, journalists need memorable quotes. This chapter distills speaking techniques that work across contexts, from lab meetings to television interviews. First rule: know exactly what you want to say, then practice saying it. Rehearse your talk.

How-to 48: Speak clearly

- Optimize body language for immediate credibility: dress smart, clean shoes, feet anchored on the ground (on the bar if high chair), look straight, show hands, smile. Relax shoulders and elbows.

- Do not project your voice, trust the microphone. You can modulate the voice, speak on two tones.

- If you feel anxious about answering a question, focus on the person. If the asking person is aggressive, imagine answering to someone else more pleasant.

- Use synonymous for acronyms. E.g., replace COP with "the annual conference against climate chaos".

- Give a powerful quote, number or fact. Human memory is selective and remembers only the best and the worst moments of an event/talk.

- Give no more than three numbers. Alternate the presentations, e.g., "fifty percent" then "half" then "one out of two".

- For time dates, omit the day and month, e.g., the Paris declaration is at the end of 2005, period.

- Can you have notes? For a job interviews or on a TV set, no. On radio, no more than 3 bullet points.

How-to 49: Speak without violence

- **Observe Accurately:** Describe specific actions without judgments or labels. Use objective language to prevent misunderstandings.

- **Communicate Feelings:** Use "I feel…" statements to express emotions clearly. Avoid language that implies blame or criticism, focusing on your own experience.

- **Clarify Needs:** Reflect on your needs driving your feelings. Share these needs openly to foster mutual understanding and connection: Use "I need …" statements.

- **Request Constructively:** Frame requests as positive invitations, not demands. Be specific and clear about what you would like the other person to do.

- **Listen Empathically and reformulate:** Give full attention to the speaker without interrupting. Reflect back what you hear to confirm understanding and demonstrate empathy.

- **Stay Present:** Focus on the current interaction, not on what you want to say. Avoiding distractions or past grievances. Maintain awareness of your own and others' immediate experiences.

- **Practice Self-Compassion:** Be patient and kind to yourself as you learn non violent communication. Recognize and validate your own needs and feelings, treating yourself with understanding.

- **Cultivate Empathy:** Make an effort to understand the situation from the other person's perspective. Show genuine curiosity and interest in their experiences and feelings, aiming to connect with their emotions.

How-to 50: Answer a question in the media

In media conversation, the question matters much less than in academic discussion. The journalist wants to entertain an audience, not to debate.

Follow this four-steps answering strategy:

1. Take note of one or two keywords in the question.

2. Take a breath. Short pause if going live, as long as you need if recorded (it will be cut).

3. Give with your main message. Start with a micro-summary of the general situation related to the current news being discussed.

4. Then bridge into the question using the keywords.

Aim to be so interesting that the audience forgets the question.

- Stand your ground assertively. Fight your psychological bias to simp and follow where the journalist leads. Interviewers know that bias and use it.

- Give yourself a license to oversimplify. Journalists and audience are generalists, so you must make it clearer than PhD-clear. Imagine talking to the supermarket cashier / your grandma.

A good expert is one who can speak about everything in their discipline. It does not require to have published on every subject but the ability to read fast.

How-to 51: Prepare a teaching intervention

Do not teach in vain. When solicited, consider what is in for you. Money? Interns? Job experience? Always ask about:

- Address with the room number. Starting and ending times. Is there a break?

- Level and number of the audience. Will you give grades?

- Which languages to use for the talk and the slides. They do not have to be the same.

- Should you sign up when arriving and where? Is there an attendance sheet for students?

- Would you be able to distribute files or photocopies? In advance? Can you give assignments? How?

I prepare two slide decks as PDFs. One with title, session plan, and instructions for next time. The other with the lesson sequence itself. Other files may include:

- Video or illustrative documents.

- Simple exercises to understand the concepts.

- Solutions to the exercises.

- A glossary can help when teaching abroad.

Arrive 15 minutes early to connect the audio/video.

Start by reviewing the previous intervention as a warm-up so that latecomers do not miss out on the day's new ideas.

Those who can, do; those who can't, teach.

Afterword

Excellence in Research - A Continuous Journey

Research excellence is not a destination but a path. Through this handbook, we have explored the practical steps and mindsets that can help you thrive in academia, particularly within the French research ecosystem. From mastering document quality to building your reputation, each how-to represents a tool in your researcher's toolkit.

Remember that behind every published paper, successful grant, or breakthrough discovery stands countless hours of methodical work. The practices outlined in Act I - from careful manuscript preparation to strategic use of AI tools - form the foundation of quality research production. Similarly, the professional skills detailed in Act II - from joining research groups to building your personal brand - are essential for long-term success in academia.

My three decades in research have taught me that excellence emerges not from sporadic brilliance but from consistent, thoughtful practice. Each time you identify a document properly, each careful literature review, each well-prepared presentation builds toward your reputation for reliability and rigor.

The French research system, with its unique institutions and traditions, offers both challenges and opportunities. Yet the principles of scientific excellence transcend borders. Whether you work at CNRS, INRAE, or any research institution worldwide, your commitment to quality, integrity, and collegiality will serve you well.

Looking ahead, research practices will continue to evolve. New tools will emerge, publication models will shift, and interdisciplinary collaboration will become increasingly vital. Stay curious, remain adaptable, and never stop learning. Remember to share your knowledge - mentor others as you were mentored, contribute to your research community, and help maintain the high standards that advance human knowledge.

As Newton famously noted, we see further by standing on the shoulders of giants. Now it's your turn to climb those shoulders and help others up alongside you. May this handbook serve as a practical guide on your journey toward research excellence.

Bonne continuation!

Minh