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Research excellence à la Française, 2025 edition

Minh Ha-Duong

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Minh Ha-Duong

Research Excellence à la Française

How-Tos for Students and Professionals

2025 edition

About the author

Co-recipient of the 2007 Nobel Peace Prize as Lead Author of the Intergovernmental Panel on Climate Change (IPCC), Dr. Minh Ha-Duong is a senior researcher at the Centre National de la Recherche Scientifique (CNRS) in Paris, France. He has over thirty years of experience conducting and supervising research.

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Ha-Duong (2025) Research Excellence à la Française. How-Tos for Students and Professionals 2025 edition.

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Credits

Cover image: Mme Curie and her daughter Irène, 1925. CC-BY 4.0 [Wellcome Collection](https://www.wellcomecollection.org/). *Both Nobel laureates who worked at the French Radium Institute – nowadays Institut Curie – they exemplify France's scientific excellence through their groundbreaking discoveries in radioactivity, their commitment to public research, and their pioneering role as women in science.*

The quote on page 20 is from Newton (1675), although the phrase was previously attributed to Bernard de Chartres (XIIth century). The others are popular sayings or mine.

I thank E. Rosenzweig and R. Maestri for comments and suggestions.

Introduction

Are you starting out as a graduate student or postdoc in France's demanding research environment? Do you sometimes wonder if you are really prepared—for writing clearly, publishing wisely, or speaking with confidence? Perhaps you are supervising students and would like a practical reference to support your mentoring, especially for skills rarely covered in doctoral schools. Or maybe you are already an active researcher, looking for ways to make the most of your time through better organisation and project management.

If you recognise yourself here, this handbook is written with you in mind. It gathers lessons from my thirty years of research and of mentoring Master's and doctoral students, as well as supervising junior colleagues.

My own journey with systematic research documentation began as a PhD student at the Centre International de Recherche sur l'Environnement et le Développement in Paris. While managing an international project and preparing what became a paper in *Nature*, I started keeping detailed memos and checklists. At the time, checklists were mostly known from aviation. They were only beginning to show their value in medicine and industry. Yet even then, they revealed a simple truth: excellence comes less from heroic inspiration than from reliable, repeatable habits.

This handbook continues in that spirit. Each note presents a practical way of working, concise enough to fit on a single page, and updated with today's tools and practices.

Research itself is changing quickly. The spread of AI tools, the push toward open science, and the growing importance of digital presence have brought new skills to learn alongside the traditional ones. That is why this 2025 edition includes an entirely new chapter on using AI assistants, with guidance on ethical use, effective prompting, and

integration into everyday work while respecting institutional rules. I have also expanded sections on research tools, scientific integrity, and how to present yourself online as a professional scholar.

The overall structure is familiar: *Quality Production* (technical skills for research), *Win the Reputation Game* (professional development), the *Entracte* with insights into French academic culture, and a final chapter with *Productivity Life Hacks* to sustain your energy and focus.

Whether you are beginning your first project or adjusting to new practices mid-career, my hope is that this book serves as a helpful companion—something to turn to when you want reassurance, a practical tip, or simply a reminder that research can be both demanding and deeply rewarding.

I wish you joy and success in your academic path, in 2025 and beyond.

Dr. Minh Ha-Duong
CIRED, September 2025

Table of Contents

Act I. Quality production.....	9
Chapter 1 How to write quality manuscripts.....	9
How-to 1: Identify all documents.....	10
How-to 2: Deliver a plausibly acceptable document.....	11
How-to 3: Write a document carefully.....	12
How-to 4: Write professionally.....	13
How-to 5: Manuscript-improving tips.....	14
How-to 6: Typography 101, staying safe with type.....	15
How-to 7: Add copyleft, relevant and beautiful photos.....	16
Chapter 2 How to research.....	17
How-to 8: Activities in the research production cycle.....	18
How-to 9: Deliverables in the research production cycle.....	19
How-to 10: Review the literature 1.....	20
How-to 11: Write a reading note.....	21
How-to 12: Argument rationally.....	22
Chapter 3 How to use AI assistants.....	23
How-to 13: Use AI ethically.....	24
How-to 14: Choose an AI assistant.....	25
How-to 15: Prompt a language model.....	26
How-to 16: Augment AI with your data.....	27
How-to 17: Review literature 2 - Deep Research agents.....	28
How-to 18: Analyse data.....	29
How-to 19: Edit and polish academic text.....	30
Chapter 4 How to manage your e-library.....	31
How-to 20: Access paywalled articles.....	32
How-to 21: Manage documentation 1 – use an e-library.....	33
How-to 22: Manage documentation 2 – know the core fields.....	34

How-to 23: Manage documentation 3 – Document types.....	35
How-to 24: Manage documentation 4 – e-library hygiene.....	36
Entracte.....	37
Chapter 5 The French research landscape.....	37
Note 25: The French research institutions.....	38
Note 26: Research careers à la Française.....	39
Note 27: The European higher education progression.....	40
How-to 28: Work like a French.....	41
Note 29: A humanist way to excellence.....	42
What One Needs for Happiness.....	43
Act II. Win the reputation game.....	45
Chapter 6 How to join a research group.....	45
How-to 30: Set up a doctoral project.....	46
How-to 31: Assemble a complete application.....	47
How-to 32: Onboard in person.....	48
How-to 33: Onboard the team's IT.....	49
How-to 34: Keep colleagues smiling.....	50
Chapter 7 How to present your work.....	51
How-to 35: Choose a venue to present.....	52
How-to 36: Pack your conference bag.....	53
How-to 37: Attend a conference.....	54
How-to 38: Wrap up after an event.....	55
How-to 39: Get a refund of expenses.....	56
Chapter 8 How to Publish.....	57
How-to 40: Choose journals to submit to.....	58
How-to 41: Submit a manuscript.....	59
How-to 42: Self-archive the preprint.....	60

How-to 43: Revise a manuscript.....	61
How-to 44: Clean up after acceptance / publication.....	62
How-to 45: Self-archive electronic supplements in Zenodo.....	63
Chapter 9 How to optimise your personal brand.....	65
How-to 46: Choose a pen name and own your ORCID.....	66
How-to 47: Archive all your productions.....	67
How-to 48: Use social networks.....	68
How-to 49: Homestead your academic identity online.....	69
How-to 50: Formalise your communication strategy.....	70
How-to 51: Level up your homepage.....	71
Chapter 10 How to speak.....	73
How-to 52: Speak clearly.....	74
How-to 53: Communicate without violence.....	75
How-to 54: Accept an interview request.....	76
How-to 55: Answer a question in the media.....	77
How-to 56: Prepare a teaching intervention.....	78
Afterword.....	79
Print exclusive bonus.....	81
Chapter 11: Productivity life hacks.....	81
Note 57: The universal key to excellence.....	82
How-to 58: Sleep well.....	83
How-to 59: Breathe quality air.....	84
How-to 60: Manage time productively.....	85
How-to 61: Break procrastination and get started.....	86
How-to 62: Control stress at work.....	87

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 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.

- Properly identified (see previous How-to)
- On-time
- On length
- Page numbers
- File format as requested and PDF
- File format UTF-8 and Unicode for text files
- Computer spell-checked
- All figures and tables have captions
- Author's affiliations
- Corresponding author email

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

- File size is minimal – less than 5 MB is the norm
- 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.

Use an AI language model — very few human copyeditors can match its accuracy.

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

Cf. *Strunk and White (1920) [Elements of Style](#)*.

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 figure 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 takeaway 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.

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

In a manuscript destined for peer-review: *if you have any doubt, resolve it.* Reviewers are likely to notice and recommend rejection.

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 seeing.
- 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. Prioritise 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.
- Do not reuse images from the internet unless you are sure of their licence.
- 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 [Unsplash](#), [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, licence.

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 (How-to 10, 17).
4. Obtain and analyse the data (How-to 18).
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 (How-to 35-38).
11. Finalise (How-to 4, 19), package the code and data (How-to 45).
12. Submit to peer-review (How-to 40, 41), archive author's version.
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:

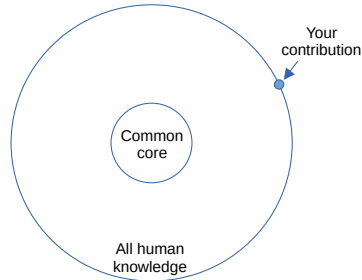
- On the back of an envelope or a café napkin. Really. An idea is only clear enough when it fits in one picture or sentence. Plus, scribbling on cheap paper unchains creativity.
- A research project note defining the original contribution, data source, method.
- After first data analysis: working code 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 1

You have a paragraph describing the research idea.

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.

Initialise it by searching on [Semantic Scholar](#), [Google Scholar](#) and doing an AI deep research (see How-to 17).

To complete the review, for each article you have:

1. Read abstract, intro, conclusion and decide if it is worth keeping in your Zotero e-library (How-to 21) and reading note (How-to 11).
2. Look at related articles: cited by, citing, semantically close, co-cited. These can be listed on the article page on the editor's website (access by DOI) or identified with a graphical tool like [ResearchRabbit](#) or [Connected Papers](#).
3. See How-to 20 to access paywalled articles.

Once you have identified key authors / teams and conference sessions, look at their web pages for ongoing work.

The review is done when you have seminal papers that everybody cites and the most recent contributions in the field.

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: Argument rationally

Scientific argumentation distinguishes research from opinion. Every claim in a research paper must be supported by evidence and logical reasoning rather than emotional appeals or rhetorical tricks:

- Distinguish between what you know (supported by evidence) and what you think (personal opinion or hypothesis).
- Provide the source and quality of evidence for all claims.
- Never use *Ad Hominem*: Attacking the person rather than their argument, e.g. 'Dr. Ha's theory is wrong because he's a man'.
- Never *Appeal to Authority*. Even Professors can be wrong.
- Beware of *False causation*. Statistical association does not prove causal relationship. Use proper causality tests.
- Avoid *False dichotomy*: 'Either we accept this theory or science fails.' Usually, more options exist.
- Recognise *Circular reasoning*: Using the conclusion as evidence for the premise.
- Recognise *Anecdotal evidence*. 'My experience with X' does not constitute proof. Use solid first-person research methods.

In French academic culture, vigorous intellectual challenge for your seminar presentation or thesis defense signals respect and interest, not hostility. Engage fearlessly but respectfully.

Citing a reference means you have read entirely and understood it yourself.

Chapter 3

How to use AI assistants

Artificial Intelligence is now an indispensable part of research practice. In 2025 it goes far beyond chatbots: conversational assistants help with writing, summarizing, brainstorming, and translating; specialised tools polish academic style, detect plagiarism, and support collaborative editing; coding agents generate scripts, run statistics and produce visualizations; search tools connect directly to scholarly archives; and multimodal models draft figures or transcribe audio and video.

Subscription costs range from free tiers to about €20-30 per month — often lower for Chinese models. But remember that AI tools are powerful but fallible. Hallucinations, biases, and confidentiality risks are real. Responsible use requires verification, critical judgment, and awareness of institutional or journal policies. Always read your audience's AI use guidelines in advance.

This chapter shows you how to use these tools effectively. You will learn practical methods for prompting, checking results, and integrating AI assistants into your research workflow. The aim is to enhance—not replace—your scholarly work.

Prompt. Verify. Integrate.

How-to 13: Use AI ethically

Artificial intelligence tools—especially large language models—are now embedded in research practice. They can accelerate writing, analysis, and communication. But their use raises ethical questions. AI cannot replace scholarly integrity, they hardly argue rationally (How-to 12). The ethical researcher uses these tools openly, critically, and responsibly.

1. Stay the accountable author. AI can suggest structure, phrasing, or code but you keep responsibility. Do not list AI as co-author.
2. Be transparent about AI use. Most journals and institutions require explicit disclosure statements. When in doubt, disclose.
3. Follow policies. Read the AI guidelines of your university, research organisation, or target journal. Ignorance is not an excuse. In doubt, ask your group's Data Protection Officer (DPO).
4. Do not feed confidential or unpublished material into online AI systems. For researchers in French labs, check [Huma-Num](#) (CNRS's own digital infrastructure) for approved alternatives.
5. Treat generated content as assistant-drafted: verify accuracy, citations, and originality.
6. Audit trail: For outputs that inform results or claims, keep a brief record of prompts and versions.
7. Double-check AI outputs for cultural biases, especially regarding gender, ethnicity, or political topics.
8. Never delegate peer review, critical reasoning, interpretation of results, or ethical approval steps to machines.

Augment your research, don't outsource.

How-to 14: Choose an AI assistant

You essentially choose an AI assistant by modalities and complexity:

- **Modalities.** Do you need only text, or also images, audio, or video? In September 2025, no model does all four well. Pick text-first assistants ([GPT-5](#), [Claude](#) and [Gemini 2.5](#)) for writing and reasoning; image specialists ([Gemini Nano Banana](#)) for figures.
- **Complexity.** Medium large models (30B–70B parameters) hit the sweet spot for most academic uses: summarizing, translating, outlining, or polishing. Very large models (>300B) cost more but rarely add enough value for research writing.

Recommended strategy: Choose two assistants that give *good enough* answers for everyday use. Switch tools for special tasks like coding, copyediting, or image editing. Start with free plans on multiple providers. [DeepSeek](#) still offers unlimited free use. If you hit usage limits, paid plans are around €20/month (sorry, French research labs rarely cover LLM access). Reconsider the choices every six months.

An AI assistant can have extra capabilities beyond language manipulation. The way to invoke them differs across versions. Ask it to:

- `Think hard' → The system takes more time before answering. This is especially important for math and logic questions.
- `Use the provided documents' + upload your PDFs. The assistant will ground its outputs in your material. See How-to 16.
- `Search the web'. The assistant will search the web for up to date information. It can also connect to your Gmail, Calendar, Drive...
- `Prepare a deep research report' → The assistant will take the time to plan, search, draft, revise and finalise. See How-to 17.

How-to 15: Prompt a language model

Write clear, specific prompts for better responses from AI and humans:

1. Be specific: describe context, length, format, style.
2. Break complex tasks into steps: 1. outline, 2. develop each part.
3. Provide examples if your initial request is misunderstood.
4. Assign a persona to the assistant. Begin with `#Role: You are ...`
5. Say what to do, not what to avoid. Positive instruction is better.
6. End your prompt with the first words of the desired output.

When writing to a LLM, use [Markdown](#) to format text, that is:

- Use # for #Section and ##Subsection headers.
- Use stars to mark **emphasis** and ****bold**** text.
- Use triple quotes ``` for code blocks or verbatim text```.
- Separate sections with blank lines.

Advanced techniques:

- Ask the AI to improve your prompt: `Clarify this prompt: ...`
- Use two models to critique each other's work.
- Request clarifying questions if needed.
- Start a new chat for each separate discussion topic.

Always save your prompts.

How-to 16: Augment AI with your data

Turn a generic chatbot into a specialised project-aware assistant by uploading your own materials.

Upload these document types to create a knowledge base:

- Literature collection: PDFs of key papers in your field
- Your manuscripts: drafts, working papers, published articles
- Data files: codebooks, variable definitions, methodology notes
- Project materials: grant proposals, lab notebooks, meeting notes

Platform limits (2025): Claude Projects can store 200 MB, ChatGPT's CustomGPT can hold 20 files, and Google's NotebookLM up to 50 sources.

Best practices for document preparation:

- Convert to searchable text (PDF, TXT, MD, DOCX)
- Include clear headers and structure in documents
- Remove duplicate and outdated versions
- Update the knowledge base as your project evolves

Set the assistant's instructions: `Role: You are an expert in [field] helping with [project]. Format: Cite uploaded documents with [Author, Year].

Base answers primarily on provided materials'

Verify the assistant correctly uses your materials by asking test questions about specific papers or data points. The AI should cite your uploaded documents when answering.

How-to 17: Review literature 2 - Deep Research agents

AI agents can automate initial literature searches. Use them for broad exploration, then verify everything.

Best tools (2025):

- [ChatGPT](#) in Deep Research mode
- [SciSpace](#): Specialised for academic papers
- [Perplexity](#) with Academic as source: Good for recent publications

Effective prompts:

- Be specific: `Theoretical frameworks for [topic], 2020–2025`
- Request structure: `Organise by methodology, then by year`
- Ask for gaps: `What areas lack empirical evidence?`

Quality control after running the broad search with AI (see How-to 10):

- Verify key claims in original sources
- Check for missing seminal works
- Import validated sources to Zotero
- Write your own synthesis

Critical limitations: AI misses nuanced arguments, can hallucinate citations, may misinterpret complex methods, and is biased toward recent and popular papers. These tools excel at breadth but lack depth.

Use AI output as a first draft, never as final review. Always read the papers yourself for critical passages.

AI finds papers, you read and evaluate them.

How-to 18: Analyse data

Modern AI assistants can write, debug, and explain in Python, R, SQL... In 2025, they perform at roughly junior-analyst quality. Premium models may get work close to entry-level professional standard, but not the depth of an experienced architect. Cost sets the ceiling more than anything else.

Exploratory analysis:

- Upload a dataset (CSV, Excel, JSON) to ChatGPT, Claude...
- Ask: `Describe this data`, `Show me the first 10 rows`. `Compute descriptive statistics and check for missing values`
- Generate visualizations: `Create a histogram of [column]`

Writing analysis code:

- Do not trust AI to decide which tests fit your research question. Ask for explanations: `Explain what this statistical test assumes`.
- Ask `Write Python code for linear regression of Y on X1, X2, X3`
- Debug errors: Paste error messages and ask `How do I fix this?`
- Request alternatives: `Show me three ways to handle these n/a`

Quality control:

- Always verify AI-generated code on a data subset first
- Cross-check statistical results with simple calculations
- Test edge cases: empty data, single values, extreme outliers

Documentation:

- `Convert this Jupyter notebook to a reproducible script`
- `Add docstrings to these functions`
- `Generate a methods section describing this analysis`

How-to 19: Edit and polish academic text

Use a generalist LLM for short textual tasks. Use Grammarly if you need to polish long English word docs. Use LanguageTool if you work with multilingual and Libreoffice texts, it is also cheaper and more open-source. Use Writefull if you are writing LaTeX collaboratively on Overleaf.

	<u>Grammarly</u>	<u>LanguageTool</u>	<u>Writefull</u>
Subscription cost	\$30/month	\$20/month	€135/year
Focus	General English writing	Multilingual copyediting	Academic & Research writing
Languages	English	25+	English
<u>Integration: supports writing and copyediting in</u>			
Web app	Y	Y	N
MS Word	Y	Y	Y
Libreoffice	N	Y	N
Overleaf	N	N	Y
Firefox plugin	Y	Y	N
<u>Features</u>			
Basic copyedit	Y	Y	Y*
Paraphrasing	Y*	Y*	Y
Abstract & Title	Y	N	Y
Generative AI	Y*	N	Y**
Tone adjustment	Y**	Y*	Y*
Plagiarism check	Y**		N
LaTeX support	N	N	Y*

* Limits in free tier, ** Only in paid tier

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

Grammarly .odt import/export can mangle cross-references, styles, and citations. Use `compare-document` instead of directly replacing your file.

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 organised, accessible knowledge base.

How-to 20: 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 21: 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 automatically 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 16 Gb 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 22: 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 23: 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 24: 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.
- Capitalise 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 25: The French research institutions

The French research landscape is organised around Establishments (Établissements), which are permanent organisations 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 26: Research careers à la Française

The French system has two main research career tracks:

- Enseignant-chercheur (Professor-researcher) work of a university. They combine teaching and research duties, the teaching load is ~192 hours per year. Recruitment is a two-step 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 organisation 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 27: 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 recognised 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 organised through Doctoral Schools, which are administrative entities within universities that coordinate PhD programs. These schools manage funding allocation, provide specialised 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 28: 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 29: 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 *Extracte*, 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 30: Set up 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 31: 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 32: 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 common in Asia. For French academics, they are best avoided: unnecessary and wasteful of natural resources.

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

@Team manager: Organise such regular conviviality moments.

How-to 33: 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: Customise the list according to your practices.

How-to 34: Keep colleagues smiling

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 organisations 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 35: 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 organised 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 organised 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 organisers 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 36: 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 37: 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 38: 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 39: Get a 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 [barème 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 40: 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 specialised Clarivate's '[Match Manuscript](#)' tool. 3/ For ranking, growing and filtering your hitlist, use online journal selectors at [Clarivate](#) 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 50: Formalise your communication strategy).
- Prioritise 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 per cent 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, prioritise 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 41: Submit a manuscript

The first author sends the manuscript. Before sending:

- Sleep on the finished product overnight.
- Get approval from all co-authors.
- Create a complete archive: raw data, scripts, processed data, code, documentation. Rebuild the paper, figures, and tables from this package.
- Tag the release in source control and package the files on GitHub.
- Archive data, code and results on Zenodo (How-to 45).
- Save a read-only copy of all submitted material.
- Draft the submission letter: emphasise originality, highlight policy relevance if that is the journal's angle.
- Address the editor by name.
- Assign an active corresponding author; don't rely on the journal to copy the managing author.

Check for plagiarism before submitting—modern systems flag excessive similarity automatically.

For the initial upload, journals usually accept a single PDF. Later, you may need to split into separate files for abstract, highlights, text, tables, figures, and supplements.

If you can't rebuild it, don't release it.

How-to 42: 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.

Archive to keep, archive to share, journals lock doors

How-to 43: 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.

No task outranks a revise and resubmit

How-to 44: Clean up after acceptance / publication

Hurrah! 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'.

How-to 45: Self-archive electronic supplements in Zenodo

[Zenodo.org](https://zenodo.org) is an Open Science archive where you can deposit data, code, or technical documentation and receive a DOI for it. 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.

Alternatives to *Zenodo* for researchers in France include:

- [Nakala](https://nakala.fr) for Humanities and Social Sciences data.
- recherche.data.gouv.fr for other sovereign research data.
- Archiving a data paper with supplementary materials in [HAL](https://hal.archives-ouvertes.fr).

Research activities (How-to 8)

1. Discuss research idea over tea. Write pitch. 
2. Define contribution, data source, method 
3. Review literature 
4. Obtain and analyse data 
5. Write Technical Report & Data Paper 
6. Draft Working Paper manuscript 
7. Review by colleagues in-house, revise 
8. Internal research seminar, revise 
9. Publish Technical Report, Data Paper, Working Paper 
10. Present at national/international conferences 
11. Finalise, package code & electronic supplements 
12. Submit to peer-review and wait 
13. Revise and resubmit 

Chapter 9

How to optimise 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 46: 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, not Hà Dương Minh or Minh Ha Duong.

- 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 organisations 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 47: 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.

A *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 contain 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.

All publications are productions, but some productions are not publications.

How-to 48: Use social networks

As a researcher, establish your presence on these five networks, prioritizing them in this order:

- [ORCID](#), to manage your free, unique, persistent identifier. Set it up first, then link it everywhere else.
- Your institutional open archive, where *you* control the listings. Most French research institutes mandate deposit in [HAL](#). This ensures your work is preserved and accessible long-term.
- Field-specific platforms where your peers gather. Economists rely on [RepEc](#) /IDEAS for rankings. Identify your field's equivalent and maintain an active presence.
- [Google Scholar](#) Universal academic visibility. The most widely consulted bibliometric source across all disciplines.
- [LinkedIn](#) Professional networking beyond academia. Important since a Researcher is also an Expert, especially for industry collaboration and career transitions.

Maintenance is necessary. Even platforms that auto-harvest your publication need review of automated imports for accuracy:

- Configure all name variants you have published under.
- Remove false attributions that dilute your profile.
- Merge duplicat entries – this can boost your *h* index.
- Keep affiliations and contact informations current

Other social networks may offer networking opportunities, but these five directly impact your research career and visibility.

How-to 49: Homestead your academic identity online

Digital homesteading means claiming your own corner of the internet, just like settlers once claimed plots of land. Lab or project pages come and go; your career endures. Establish a minimal professional web presence:

- Register your own domain name: first-lastname.fr (or .com/.eu).
- Publish a one-page static homepage.
- Link out to your ORCID and other canonical profiles (How-to 48.)
- Cross link to your homepage URL from each profile

Your homepage should include, all visible on a single screen whether on mobile, tablet, or desktop:

- Photo
- Name (see How-to 46)
- Current role/affiliations
- 2-3 research topics (the keywords you want to be found for)
- Work email, institutional postal address
- Canonical profile links.

No need to code in HTML or CSS. Gather the required information, then ask an AI assistant `Generate a static academic researcher homepage with the following contents: ...`

Budget: at [Gandi.net](https://gandi.net), simple hosting starts at 2€/month.

Cf. Raymond (2000) [*Homesteading the Noosphere*](#)

How-to 50: Formalise 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?

Use consistent naming and branding across platforms.

Link to your academic homepage from your email signature, business cards, and social media profiles.

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

How-to 51: Level up your homepage

The web was created for researchers to share knowledge.

To materialise your personal brand identity (How-to 50), upgrade your homepage to showcase 3-5 latest productions, highlight 3-5 current projects and research themes, and give access to a full list of publications.

Technical specifications:

- Prefer static hosting for low upkeep.
- Use correct [HTML](#), correct [CSS](#), no broken [links](#).
- Use HTTPS, keep page light and [fast](#).
- Ensure accessibility: contrast, alt-text, readable fonts.
- Avoid trackers/cookies.
- Add `Last updated: YYYY-MM-DD`.
- Add basic metadata and alt-text.

Content strategy:

- Update publication lists promptly after acceptance.
- Deposit working papers and preprints in HAL and link to them.
- High-quality photos of team, field work, or lab activities.
- Brief summaries of research projects for non-specialist audience.
- Periodically back up your site and keep copies of images and text in your archive (see How-to 47).

Budget: Expect 1-5 days for setup and about two hours per month for updates. The hosting costs remain minimal, as in How-to 49.

Cf. Berners-Lee (1989) [*Information Management: A Proposal*](#)

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 52: Speak clearly

Being understood is the foundation of all academic communication. Whether presenting research findings, teaching students, or discussing ideas with colleagues, your ability to convey complex thoughts with precision and accessibility determines your impact as a scholar.

- Optimise 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 53: Communicate without violence

Academic discourse thrives on debate, but how we express ideas matters as much as the ideas themselves. In diverse communities, language can foster inclusive dialogue or inadvertently exclude.

- **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. Focus on your own experience to avoid language that implies blame or criticism.
- **Clarify Needs:** Reflect on your needs driving your feelings and share them with 'I need ...'.
- **Request Constructively:** Frame requests as positive invitations, not demands (see How-to 15).
- **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. Recognise 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 54: 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 an AI assistant 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.

How-to 55: Answer a question in the media

In media conversation, the question matters much less than in academic discussion. How-to 12 Argument Rationally only applies for scientists. 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 *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, that is what the journalist secretly prefers.

- 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 licence 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. Being able to read fast is enough.

In media, clarity beats precision.

How-to 56: 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 daily practice. This handbook has outlined steps and mindsets to help you thrive in academia, especially within the French research ecosystem. From mastering document quality to building your reputation, each How-to is meant as a practical tool in your researcher's toolkit.

Behind every published paper, successful grant, or breakthrough discovery lie countless hours of methodical work. The practices in Act I—from careful manuscript preparation to the strategic use of AI—form the foundation of quality research. The professional skills in Act II—from joining research groups to cultivating your personal brand—sustain long-term success in academia.

Three decades in research have taught me that excellence grows less from flashes of brilliance than from steady, thoughtful practice. Each properly identified document, each thorough literature review, each well-prepared presentation contributes to a reputation for reliability and rigor.

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

Looking ahead, research practices will keep evolving. New tools will emerge, publication models will shift, and interdisciplinary collaboration

will matter more than ever. Stay curious, remain adaptable, and keep learning. Share your knowledge—mentor as you were mentored, contribute to your community, and uphold the high standards that advance human understanding.

As Newton observed, we see further by standing on the shoulders of giants. Now it is your turn to climb those shoulders—and to offer a hand to those who follow. May this handbook serve as a companion on your journey toward research excellence.

Bonne continuation!

Dr. Minh Ha-Duong

If you found this handbook useful, let others know by reviewing it on [Amazon](#)