

Book Reading Summary: Where Research Begins: choosing a research topic that matters to you (and the world)

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Contents

1	Summary	3
1.1	Research Phases: Inside-Out Self-Centered Approach	3
1.2	Summary of Chapters	4
2	Try This Now	7
2.1	From Topics to Questions	7
2.2	From Questions to Problems	9
2.3	Engaging Primary Sources	13
2.4	Assembling Arguments	13
2.5	Planning Research Projects	13
2.6	Identifying Your Problem Collective	13
2.7	Rewriting for Your Collective	13
2.8	Organizing Your Field into Problem Collectives	13
2.9	Rewriting for Your Field	14
2.10	Formal Drafting and Revision	14
2.11	What is Next?	14
3	Sounding Board and Research Network	14
3.1	Building Research Network	14
3.2	Identifying Primary Sources	14
3.3	Decision Consulting and Proposal Sharing	15
3.4	Evaluation of Proposal from Outsider	15
3.5	Finding a Sounding Board in Your Field	15
3.6	Being Your Own Sounding Board	15
4	Introduction	16
4.1	Self-Centered Research: A Manifesto	16
4.2	Centered Research Is the Best Research	17
4.3	How to Use this Book	17
4.4	Introversion, First. Extroversion Second	19
5	Become a Self-Centered Researcher	20
5.1	Questions	20

5.1.1	A Topic Is Not a Question	20
5.2	What's Your Problem?	26
5.2.1	Don't Jump to a Question (or You'll Miss Your Problem)	26
5.2.2	Stress-Testing Your Questions	27
5.3	Designing a Project that Works	31
5.3.1	Primary Sources and How to Use Them	31
6	Get Over Yourself	32
6.1	How to Find Your Problem Collective	33
6.2	How to Navigate Your Field	33
6.3	How to Begin	33
7	What's Next in Your Research Journey?	33

1 Summary

1.1 Research Phases: Inside-Out Self-Centered Approach

Where Research Begins: choosing a research topic that matters to you (and the world), Thomas S. Mullaney and Christopher Rea, The University of Chicago Press.

- In this book, the authors proposed the **Self-Centered Research** process, an inside-out self-motivated research **practice, ethic** and **a state of mind**. It discuss, at *the beginning phase of research*, how the research problem is *identified, refined* and *evaluated*, through **inward-focus first** and **outward-focus** later methodology.
- This book focus on **raising the internal motivations** of researcher before the research process started, and in the process to gain *self-awareness, self-trust* and *affirmation on the direction of research* on their own. It stress the importance of “**finding your center**” – the matters that really motivates *you* to start the research. It focus on the question of “*Why?*”
- By using “**introversion first, extroversion second**” approach, the authors help the early researchers to **avoid** being **distracted** by perspectives, ideas, suggestions from **others** (*authorities, mentors, colleagues*) in research communities, as well as to **avoid the judgemental thoughts** from *their own mind*, which could hurt the inner exploration processing at early stage of research.
- This book has a favor of using **psychological treatment** to examine the researcher’s own interest/boredom on research questions.
- The key messages to early researchers:
 1. Be **vulnerable**
 2. **Listening to yourself**
 3. **Writing things down**
- This book is divided into two stages:
 - **inward stage**: the **goal** of this stage is the **raise the self-awareness** of the researcher ourselves on our motivations and values. This way to make sure we are confident on our direction and priorities. This stage is also the stage we accumulate knowledge, source materials and raise our arguments.

In this stage, we transform

 - * from **topics** into **questions**: including *question brainstorming, interest self-observation, boredom self-observation, and question narrow-down and specification*.
 - * from **questions** into **problems**: including *question linguistic check, question source check, question expansion, assumption uncover and modification, and problem identification*.
 - * we **engage sources** and **assemble our arguments**.
 - * finally, we **plan** our project and write our **research proposal**.
 - **outward stage**: the goal of this stage is to **raise awareness** on the *external* ideas and perspectives in your **field** and your **Problem Collectives**, and to make most out

of this *relationship*.

Part 2 moves your research journey into a *broader* and deeper *engagement* with other people's ideas. This stage focus on *engaging* with external world and their perspectives, ideas, esp. with your *field* and your Problem Collectives.

We are also going to revise our draft based on their feedbacks multiple rounds.

1.2 Summary of Chapters

- This books covers several phases of early research:
 1. **Question Brainstorming with Self-Observation:** at this earliest phase, the task is to generate questions relevant to you, *from the best of your knowledge*.
 - This part covers the traditional method of “*from topics to questions*”. But in this book, the emphasis is on self-observing on your own reactions to specific matters in the topic and your own perspective and related questions.
 - While scanning through entities under a topic, ask yourself “*Why does that interest you?*” or “*Why i do not care about it?*” **Take notes** on questions generated and *flag* those with unconsciously effect (interest/bordom) on you.
 - The point is being *honest, self-observing* but not *not be judgemental*.
 - Your questions are for yourself. They are meant to be *unpolished*. Use normal worlds, not jargons. You are not meant to impress anyone.
 - *Your questions* need to be *specific and concrete*, not *vague*, not *abstracting*.
 2. **Question Refinement:** In this step we *improve the questions* you have already generated. There are two ways for stress-testing your questions:
 - Focus on *language*;
 - * Rewrite your questions, making it clear, precise, jargon-free.
 - * Avoid biases, prejudice; avoid too much assumptionsBy the end of this process, your questions should meet these criteria:
 - * *They should be clear, precise, and jargon-free*.
 - * They should be *rooted in verifiable and falsifiable data*. Your research questions should have **integrity**. This means that they should be inspired by **fact**, rather than by speculation, prejudice, or opinion.
 - * They should be *indifferent to the outcome*. A research question *should not presume a certain answer*. If yours does, rewrite it to *eliminate that presumption*.
 - * They should be *clear about the subject*. Be as specific as you can be about the *who* in your question.
 - * They should be *raw* and *undisciplined*. At least for now.
 - Focus on **sources**. Rather than trying to use primary sources to start answering the questions you've come up with, we want you to use them to *develop, refine*, and

expand those questions.

- * **Refine keywords and Search for other primary sources** that mentioned in *your primary sources*. These related primary sources can help you ask better questions. They also contains **new keywords**, which helps to find more and better primary sources.

Keep track of all keywords and searches.

- * Make the **Assumption** visible. **Categorize and Sort** them according to
 - (a) the assumption that you want to work with;
 - (b) the assumption that you want to discard;
 - (c) the assumption you are uncertain about for now.

You want to maintain assumptions in Category (a). Also you want to modify and improve on assumptions in Category (b). Finally, you want to leave assumptions on Category (c) for later revisit.

During this categorization process, write down your thoughts and reasons for the categorization.

3. **Problem Identification:** This is the part where we move “**from questions to problems**”. At this step, we use *sources* to *identify the problem* motivating your questions. We also learn how to use our *Problem* to *generate new and better questions*.

- In this part, we found **internal connections** between questions.
- In particular, we need to **generalize** from previous questions to higher level.

Also we need to **group** these questions and to identify **the shared concerns** among these questions.

- Note that it is not time to answer these questions.
- How do I know when I’ve truly discovered my Problem?

A problem is never a fleeting thing. Rather, it is something that is **sustained** and **enduring**.

4. **Primary Source Engagement:** After identifying your problems, we need to identify, filter and refine your list of primary sources. You need to consider how to answer your questions with the primary sources you have.

- You need to distinguish primary and secondary sources.

Primary Sources are the **evidence** that you use to **develop and test claims, hypotheses, and theories about reality**.

- Note that a source’s *type* is determined solely by **its relationship with the questions** you are trying to answer, and **the problem** you are trying to solve. A source is never inherently primary or secondary.
- **how you treat this source** will lead you down either a narrow path or a broad avenue of potential research questions.

- You need to deep dive and discover the full potential of these primary sources. This helps you to look beyond obvious questions and to arrive at something original.
 - Envision imaginative primary sources that best answer your question. Search for it.
 - You need to pinpoint these sources to your problem; determine if they are relevant, redundant, reliable.
5. ***Argument Construction:*** You need to make proper argument from these sources.
- Find the dots.
 - Figure out which dots belong to your picture. See what is there? See what is missing?
 - Figure out which dots are not dots at all. Not all materials can be used as sources.
 - Determine when you have enough.
 - Connect the dots.
6. ***Research Project Design:*** Plan the project by answering following questions
- What outcome do you want to achieve?
 - What primary sources do you possess?
 - What resources (time, computational, people, other responsibilities) can you utilize? What constraints?
 - What is the deadline?
 - What timeline are you planning?
 - Understand my personality
- Finally, write it down as a research proposal for yourself.
7. ***Problem Collective Identification:***
8. ***Rewriting for Problem Collective:***
9. ***Field Grouping via Problem Collectives:***
10. ***Rewriting for Field:***
11. ***Assembling into Draft:***

2 Try This Now

2.1 From Topics to Questions

- **Exercise 2.1 (Search Yourself)** *The goal: To use a list of **primary-source search results** to figure out **the aspects of your topic that most interest you**, and **draft questions** based on these interests.*

You already know how to search the internet. This exercise prompts you to use the results of an internet search to search yourself.

*This exercise offers one way to **get from a topic to questions***

1. *Based on the “Try This Now” exercise you completed in the introduction, **write down any and all of the research topics you are drawn to**. Feel free to be as general as possible, and to include more than one.*
2. ***Select** one of the topics on your list and run a search using at least three (or more) of the webbased databases listed below.*
3. *Click on a few of the **search** results that **interest** you – say, five to ten.*
4. *Don’t read the search results in depth. Instead, your goal is to dedicate*
 - *perhaps 20 percent of your mental energy to **scanning** the list of search results (and perhaps the contents of a few) and*
 - *the remaining 80 percent of your mental energy to **self-observation**.*

*You want to **read yourself** as you **read the results**.*

5. *In particular, pay close attention to how your **mind** and **body** are **responding** to different search results:*
 - *Which ones seem to **jump out at you**?*
 - *Which ones cause you to **linger** just a split second longer?*
 - *Which ones quicken your **pulse**, even slightly?*
6. ***Write** down at least ten entries that **attract** you, without worrying about why they do.*
7. *Based on this list of ten entries, **answer** the three questions above about those entries, to **generate self-evidence**.*
8. *Sleep on it (take a break of at least twenty-four hours).*
9. *Return to the answers you wrote out and ask yourself: If I didn’t know the person who wrote these answers, or flagged these search results as “interesting,”*
what kinds of guesses would I make about this researcher?

What story does this “self-evidence” seem to tell about the researcher, in terms of their concerns and interests?

10. ***Write** down your **thoughts** on these questions, getting as much down on paper as possible.*

Common Mistakes:

- Not writing things down
- Getting bogged down in **individual sources too soon**
- Excluding “fluke” search results that **seem unrelated** to the keywords you entered in the database or unrelated to your topic
- Feigning interest in a search result that seems “**important**,” even if it doesn’t really interest you
- Only registering interest in search results for which **you think you know why** you’re interested in them, instead of being more **inclusive**
- Trying to make a list of noticings that is **coherent** and fits together
- When speculating about why a search result jumped out at you, worrying about whether or not the reason is “**important**,” based on some **imagined external standard**

- **Exercise 2.2 (Let Boredom Be Your Guide)** *The goal: To become **attentive** to your **active dislikes**, identifying questions that you “should” (in theory) be interested in based on your topic of interest, but aren’t. By **understanding what you don’t care about** regarding your topic, you accelerate the process of figuring out what you do care about.*

*After all, the most common reaction human beings have to **boredom** is **avoidance**. We try to dismiss or ignore things that bore us.*

But how would you explain why something bores you – especially something that seems like it should align with your topic of interest? Here’s what to do:

1. *Go back to your search results, and scan them again.*
2. *Pay close attention to your EKG readout, focusing this time on the results that **bore** you.*

In the very same way that we spoke of not “outsmarting” yourself regarding your interests, you will need to be cautious during this process as well.

3. *Choose a few “**boring**” results and **write** down answers to the same questions you answered before – this time for these different, boring search results:*
 - *What does this make me think of?*
 - *If I had to venture a guess, why did this one **not jump out at me**?*
 - *What **questions** come to mind for me when I look at this search result?*
4. *Now, for each search result, write some version of this sentence: “I’m **more interested** in [something else] **than** [search result].”*

Common Mistakes:

- Denying boredom, or feigning interest in something because you feel it’s “on topic” and demands your interest because it’s “important.”

- Engaging in circular logic.

- **Exercise 2.3 (Go Small or Go Home)** *The goal: To generate **specific, fact-focused questions** about your topic before you’ve done in-depth research. These will lead to bigger questions later on.*

You have a set of notes about two things:

- *What you noticed about sources on a topic, and your best guesses as to why you noticed those things*
- *What, among the “logical” or “obvious” aspects of your proposed topic, bored you and why*

Using all of this as inspiration, try the following – as always, in writing.

1. *In a stream of consciousness, **write** out a minimum of **twenty questions** related to your topic.*

*The **key** is to make your questions as **specific** as possible, using the following prompts:*

- *What **facts** do you **wish to know** about your topic?*
- *Which **data** or **information** about your topic might you need to satisfy your curiosity?*
- *What telling **details** about your topic do you **imagine** might exist?*

*Asking **precise factual questions** is one **key** to **escaping Topic Land**.*

Common Mistakes:

- Asking vague, grand, abstract, or big-picture questions about “meaning” or “significance,” instead of specific and **precise factual questions**
- Not asking actual questions (with a question mark), but instead writing statements or sentence fragments – **topics masquerading as questions**
- Not asking a question because **you think you couldn’t answer it**, perhaps because you think that the data doesn’t exist or is unattainable
- Asking **too few questions**, resulting in an inadequate quantity of self-evidence

2.2 From Questions to Problems

- **Exercise 2.4 (Run a Diagnostic Test on Your Questions)** *The goal: To ensure that the vocabulary, grammar, and phrasing of your questions are **specific** and **unprejudiced** so that they do not presume a certain outcome.*

Rewrite your research questions with particular attention to the following:

1. **Punctuation.** *Do your questions actually end in a question mark? Or have you phrased them in more general, and vaguer term? **Be more specific**, and add a question mark.*
2. **Adjectives and adverbs.** *Do your questions rely on **broad, generic, imprecise**, or*

sweeping adjectives? Try to cut such adjectives and adverbs out entirely.

3. **Collective nouns.** Do your questions depend upon collective nouns? If so, do your best to replace these nouns with more precise categories. You do not need to take into account all possible variables, but you do want to try to include all of those that might make a difference to your project.
4. **Verbs.** Do your questions contain verbs like “influence,” “affect,” “shape,” or “impact” or passive constructions such as “was affected by,” “responded to,” or “reacted to”? In such cases, chances are high that you are building your questions in such a way that they **rule out** an entire set of **possible** answers and outcomes. **Rephrase to avoid presumptions** that could result in confirmation bias.

Common Mistakes:

- Asking **leading questions**, which are phrased so as to *predetermine the answer*.

These questions are motivated by *unproven assumptions*, and result in **confirmation bias**. The result of leading questions is that you inevitably find what you are looking for.

- Asking **advocacy questions**, which promote a certain ideology (taken-for-granted world-view) or course of action.

These questions **take a position** and encourage others to *adopt* it, irrespective of the actual facts of the case or which interpretations the evidence suggests are plausible.

- **Forcing** all your questions to “make sense” or “add up.” Don’t worry. That part will come soon.

- **Exercise 2.5 (Use Primary Sources to Educate Your Questions)** *The goal:* To learn how to **run keyword searches** designed to **enhance** or “educate” the **questions** you are asking about your topic.

These searches **uncover primary sources** relevant to your research that themselves contain **new keywords** you were previously unaware of (thereby enabling you to run follow-up searches to reveal even more, and more useful, primary sources).

This next exercise requires you to delve back into your **specific subject matter** and into **primary sources**. Rather than trying to use primary sources to start answering the questions you’ve come up with, we want you to use them to **develop, refine, and expand those questions**.

Here are some **techniques** to help you use primary sources to refine your keyword searches.

- **Take Advantage of Category Searches.** In certain databases, you might be fortunate to come across materials that are accompanied by **metadata** (data about data), crafted by librarians and archivists whose goal it is to make sources more discoverable to researchers like you.

This is one way to get from a source that contains only the keywords you used in your search to another source that contains none of the keywords you used. Here’s what to do:

- * after you run your search, and receive your results, **sort** the results chronologically
 - * As you scan through these **titles**, take notice: What words show up in the title?
 - * If you are able to read the work online, scan the **table of contents**, the **preface**, the **introduction**, and the **index**. What words, terms, and vocabulary are used? These are your new keywords. Write them down.
- **Locate Self-Reflexive Sources.** In some cases, you might be fortunate to find a primary source, like a historical dictionary, that explicitly addresses the shifting nomenclature surrounding the very topic the primary source is about, outlining for you the varied ways a given idea, place, community, practice, or the like has been named and renamed across time and space.

The goal for now is to determine if this source will lead you in the **direction of further primary sources** that you wouldn't have been able to find otherwise.

- **Keep Track of Your Keywords and Searches.** As you discover and try out more and more keywords – and even a smaller-scale project can produce hundreds – it's easy to lose track of them and get overwhelmed.

Fortunately, there's a simple solution: **track** your searches using a **table**. Here's how, in three steps:

- * In the rows on the left side, enter the **keywords** you plan to use.
 - * In the column headers, enter all of the electronic **databases** or library catalogues you plan to explore.
 - * Inside each cell, keep track of when you ran a particular search. Enter the **date of your search**, and perhaps also a brief **note** on the number of results you found.
- **Exercise 2.6 (Make Your Assumptions Visible)** The **goal**: To become aware of the **assumptions** you bring to your research project and use them to identify the **problem** that motivates your research questions.

So let's get to work on making your assumptions visible, and vulnerable. Here's what to do:

1. **Review** your most recent set of **questions** and ask yourself:

For each of these questions, what has to be true in advance in order for me to ask this question in the first place?

2. List the small questions/things you **noticed**, and **write down the assumptions** you may hold that helped you notice each in the first place.
3. **Make a list of the assumptions** you bring to **this particular question**, and sort them into the following categories:
 - (a) Assumptions you **want to** work with, for now
 - (b) Assumptions you want to **discard right away**
 - (c) Assumptions you are **unsure** or ambivalent about

4. Write two lines to **justify your choice** for putting each assumption in a particular category.
5. Now go back to all of the questions in your list whose underlying assumptions fall into **category (a)**.

Since these are built on assumptions that you, having reflected on them, feel safe in **maintaining**, then these questions are good as they are.

6. What about questions whose underlying assumptions fall into **category (b)**? Although you might be tempted to, do not throw them away just yet! If you find them to be based on weak, prejudicial, or unfounded assumptions, **try to rephrase them** so that they aren't.

Can they be **rebuilt** as more **grounded, open-ended questions**?

Try to **improve** them before you **discard** them.

7. As for questions built on **category (c)** assumptions, these fall somewhere in between. Most likely you would want to **keep** them in your list, but perhaps **flag** them, as reminders to yourself that you want to keep an eye on them, and revisit them as your research deepens.

To keep things organized, try **creating a chart** like the one in table 3 for each question, in which you identify and analyze underlying assumptions and revise the question as needed.

Common Mistakes:

- Not identifying or divulging the assumptions motivating your research questions – for any reason, including embarrassment or self-consciousness.
- Not attempting to **revise or restructure** a research question based on **category (b) assumptions**.
- **Dismissing** or throwing out **category (c) assumptions**, instead of **examining** them as a type of self-evidence.

- **Exercise 2.7 (Identify the Problem That Connects Your Questions)** *The goal: To identify the problem underlying your multiple draft research questions*

Try this procedure:

1. Lay all of your questions out in front of you.
2. Do not try to answer all those questions for now. Instead, ask yourself:
What are **the shared concerns** that connect these **questions**?
3. **Step outside yourself**. If you were **someone else** looking at these questions, what might you speculate are the **deeper questions** that **connect** these **small questions**?
4. **Write down those questions**.

5. If necessary, **prioritize** your questions by degree of **specificity** or **generality**, as **medium-level** or **high-level** questions.

*These questions should be **more general** than the **specific factual questions** you generated earlier.*

Common Mistakes:

- **Trying to answer your multiple questions**, instead of focusing on **identifying the shared concern** that underlies them.
- Not thinking **beyond the particular topic or case**, and ignoring a **more fundamental concern**.

2.3 Engaging Primary Sources

- Exercise 2.8 (Treat Your Primary Source Like a Cereal Box)
- Exercise 2.9 (Envision Your Primary Sources)

2.4 Assembling Arguments

- Exercise 2.10 (Connect the Dots Using Your Sources)

2.5 Planning Research Projects

- Exercise 2.11 (Decision Matrix)
- Exercise 2.12 (Prepare a Formal Research Proposal)

2.6 Identifying Your Problem Collective

- Exercise 2.13 (Change One Variable)
- Exercise 2.14 (Before and After)
- Exercise 2.15 (Map Out Your Collective (Secondary Source Search))

2.7 Rewriting for Your Collective

- Exercise 2.16 (Find and Replace All “Insider Language”)

2.8 Organizing Your Field into Problem Collectives

- Exercise 2.17 (Start Your Own “What’s Your Problem?” Bookstore)

- Exercise 2.18 (Change Their Variables)

2.9 Rewriting for Your Field

- Exercise 2.19 (Rewrite for Your Field)

2.10 Formal Drafting and Revision

- Exercise 2.20 (Create “Draft 0”)

- Exercise 2.21 (Move from 0 to 1)

2.11 What is Next?

- Exercise 2.22 (Find a New Problem and Start a New Project)

- Exercise 2.23 (Help Someone Else)

3 Sounding Board and Research Network

3.1 Building Research Network

- **Exercise 3.1 (Start Building Your Research Network)** *Start building your research network – a community of people you can consult with and seek advice from during the research process.*
 1. *Make a list of teachers, colleagues, students, and fellow travelers you think would be willing and available to discuss ideas with you on a periodic basis.*
 2. *Circle a couple of names on your list of potential Sounding Boards.*
 3. *Choose a few of the questions you’ve generated while reading this chapter, and make a meeting to discuss them.*
 - *Tell them you’re not trying to settle on a research question just yet.*
 - *The goal is to get on their radar, and to start **the process of communicating** about your research ideas **orally** – since you’ve already done some writing.*
 - *You could send them your questions in advance, but strive to make it a casual conversation.*
 - *Spend some time generating questions about a topic together.*
 4. *And say Thank you. You may well be seeking them out again.*

3.2 Identifying Primary Sources

- **Exercise 3.2 (Get Leads on Primary Sources)** – *When you are searching for your Problem, or verifying that the problem you’ve been working with is the right one for you, it might still be **too early** to talk to a Sounding Board about your assumptions.*

- What your Sounding Board can help you with at this stage is ***finding primary sources*** that you can use to educate your questions.

*Describe those exercises to your Sounding Board, and ask for suggestions of other databases or archive catalogues or **repositories** of **primary sources** you might use.*

3.3 Decision Consulting and Proposal Sharing

- Exercise 3.3 (Is Your Decision Matrix Complete?)
- Exercise 3.4 (Share Your Proposal with a Trusted Mentor (Who Understands How Preliminary

3.4 Evaluation of Proposal from Outsider

- Exercise 3.5 (Does the Lay Version of My Proposal Make Sense?)

3.5 Finding a Sounding Board in Your Field

- Exercise 3.6 (Find a Sounding Board in Your Field)

3.6 Being Your Own Sounding Board

- Exercise 3.7 (Talk to Yourself)

4 Introduction

4.1 Self-Centered Research: A Manifesto

- In this book, we advocate a “self-centered” approach to research.
- *Self-Centered Research* is the following:
 - A *practice* of research that emphasizes the importance of setting out on the research journey from exactly where you are right now, and maintaining close contact with your own self – your instincts, your curiosities, and your biases– throughout the process.

To be a “self- centered” researcher is to maintain your center of gravity over your own two feet at all times, and to *avoid pursuing topics and questions that you imagine might please some imaginary, external judge.*

- An *ethic* of research that involves *consciously acknowledging and assessing your abilities and your limitations* as a researcher. It involves being *centered: knowing who you are, listening to your own instincts, trusting them* even when they sound naive or inarticulate, and *refining them during the research process.*
- A *state* of mind that *affirms the value of your ideas, assumptions,* and concerns in shaping your agenda and *the direction of your research.* It presumes that the better (and faster) you figure out your own concerns and motivations as a researcher, the better (and faster) you will discover a research problem that is deeply meaningful both to you and to the world at large. But the first person who must be deeply concerned with your research problem is you, the *researcher.*
- *Self-Centered Research*
 - *does not* mean *unleashing (or inflating) your ego.* Being self-centered is not being self-absorbed, self-obsessed, self-congratulatory, self-consumed, self-indulgent, self-involved, self-serving, or self-ish.

Quite the opposite: self-centered researchers are *self-reflexive*, and always *self-critical*; *honest* and *probing* about their own interests, motivations, and abilities; but also *open* and *confident* enough to *assess* the validity of others’. This means having the where-withal to *challenge* received wisdom, including unfounded ideas you are probably carrying around without realizing it.

- is also *not autobiographical.*

It does not imply that the papers, articles, reports, or books you write will tell the story of your life. Or that every documentary you produce, or painting you paint, will be a self-portrait.
- *The end goal* of the Self-Centered Research process is, just like conventional research processes, one in which the researcher produces empirical, grounded, theoretically informed, and compelling scholarship about some aspect of the world around us, and does so in a way that *changes* how *other* people think.
- In order to identify and solve a problem that truly matters to other people, however, the *Self-Centered Research* process insists that *this problem must matter, first and foremost, to you.*

4.2 Centered Research Is the Best Research

- *Where to begin?* The answer is: ***Exactly where you are, right now.***
- Core to this book are two propositions.
 - First, research can be a *life-changing experience*, if you get a few things *right* from the *start*.
 - Second, the most important part of beginning a research project is ***finding your center.***
- Research is a process *not just* of *solving problems* but of ***finding problems that you*** – and other people – ***didn't know existed.***

It's a process of *discovery, analysis, and creation* that can *generate its own momentum* and *create a virtuous cycle of inspiration.*

Deep-seated problems only reveal themselves through ***self-trust, exposure to primary sources, and time.***

- ***Only you*** – not anyone else – can tell you *what you were meant to research.* Answering the question “What to research?” requires a *hard look in the mirror.*
- The ***goal*** of this book, then, is
 - to help you ***create the ideal conditions*** to start a fire in your mind.
 - But at the same time, it will show you how to ***maintain balance and clarity*** in situations of complexity, uncertainty, and ambiguity.
 - And it will teach you ways to tell the difference between ***unproductive uncertainty*** – that is, when you're ***on the wrong path,*** and should probably turn back – and ***productive uncertainty*** – that is, when it may feel like you're lost, but where your ***inner instinct*** and ***wisdom*** are *encouraging* you to keep on going.

4.3 How to Use this Book

- ***Try This Now***

In each chapter, you will work through practical exercises and games designed to help you achieve a specific set of goals:

- generating questions,
- refining questions,
- discovering the patterns that connect your questions, and
- identifying the problem that motivates you.
- All of the exercises rely on a core set of principles. These include
 - ***attentive, nonjudgmental self-observation;***
 - giving oneself permission and *encouragement* to say *inarticulate, tentative, and vulnerable things* out loud;
 - getting things ***down on paper.***

- Whether or not you tackle everything in sequence on your first pass, the only way to get the benefit of our advice is by completing the exercises, and, as mentioned above, by **writing things down**.
- The point of all this *continual writing* is to *produce* what we term “evidence of self,” or “**self-evidence**.”

You can think of self-evidence as clues that will help you figure out the answers to the most important questions that a researcher must answer during this early phase:

- *Why am I concerned with this topic?*
- *What is it about this subject that I think holds the key to some larger issue?*
- *Why does this primary source jump out at me?*
- *Why, out of all possible topics that I could be working on, do I keep coming back to this one?*
- *What is my Problem?*

- **Self-evidence** is a valuable form of *note-taking* that we believe many researchers neglect.
- We advocate making **introspection** a *habitual part* of your research method.
- The pieces of *self-evidence* you produce during the *Self-Centered Research* process are cousins to the kind of *notes* experienced researchers routinely make when they read primary sources, conduct interviews, carry out ethnographic fieldwork, or copy down bibliographic information.

We call them **self-evidence** because, *during this early phase of research, these notes will possess a value* that goes far *beyond* the *recording* of facts, quotes, observations, and other evidence about the world around you. They will **provide evidence about you yourself**.

With these clues you will be able to *uncover the hidden questions and problems* you carry around inside you.

Discover them early in the research process and not only will you *save yourself time and frustration*, but, more importantly, you will be more likely to *arrive at the research project that is right for you*.

- **Commonly Made Mistakes**

A list of these follows each “*Try This Now*” exercise. Most of these mistakes fall into one of three categories:

- Not letting yourself be **vulnerable**
- Not **listening to yourself**
- Not **writing things down**

- **Sounding Board**

A **Sounding Board** is someone who helps you to gain *alternative perspectives* on your ideas and writings and to *step outside yourself*.

- A *Sounding Board* helps you to **self-reflect** and *make better decisions*, so we recommend

that you make *talking to someone you trust* a habit early in the research process.

- Ultimately, *the Self-Centered Research* process will empower you to *become your own Sounding Board*.

- Well-meaning suggestions from a teacher, adviser, or other *authority* figure – suggestions as to what you “could” or “should” work on – can have a *major impact* on a researcher during the early phases of research. If you feel lost, or uncertain about the value of your nascent ideas, these suggestions can feel a lot like a *command*. Or it may become your fallback, your “Well, I can’t come up with anything better, so I might as well go with that!”

What if you *skipped* all that messy *introspection* and snapped up the ready-made idea that your trusted adviser has told you is important? Unfortunately, the effect can be *inhibitory* and *counterproductive*.

- The point of research is *not to fall back*, it’s to *move forward* – to take a risk and discover or create something original.
- A *mentor* can *offer advice* that *saves you from retracing others’ paths* to the same conclusion.

But when a student comes with an idea for a research project and asks, “Is this what you want?” a true mentor’s response is always the same: “*Is this what you want?*”

- In our experience, if a research question is *not* one that you’re *truly motivated* to spend your time answering, you’ll find it a *challenge* to do a good job, or even to finish.

4.4 Introversion, First. Extroversion Second

- The *two-part process* of starting a research project involves
 - looking first *inward* and
 - then *outward*.
- – Part 1 takes you through the *inward-focused process* of becoming a self-centered researcher. You will *reflect* on the experiences, interests, priorities, and assumptions you bring with you – and assess how to make best use of them in charting out a research direction.

This process goes beyond *conventional brainstorming* because it requires *taking stock of your values*. It involves *distinguishing* between

- * *what doesn’t matter to you,*
- * *what you think matters to you,* and
- * *what really matters to you.*

We believe that you are best off *starting* this process *before* you field-test your ideas against the wisdom of the research community.

- Part 2 focuses on this process of *extroversion*. It helps you to navigate the often bewildering process of coming to terms with the research communities conventionally known as “*fields*” and “*disciplines*,” as well as how to identify researchers who may not

be in the same field as you but *who are interested in similar problems* – what we call your **Problem Collective**.

- **Exercise 4.1** *Writing Exercise – Try This Now*

All of the writing you do with (and in) this book will help the research process by

- *creating an **evolving record** of your ideas— your “self-evidence”;*
- ***continually externalizing** your thoughts, as an aid to memory and to your research collaborators;*
- *building your project step-by-step through different types of writing, focused on discrete aspects of the early phases of research;*
- *making writing a regular research habit*

5 Become a Self-Centered Researcher

- Part 1 of this book guides you through the process of centering your research questions, of aligning them with the concerns that you carry inside you.
- You will *not be writing about yourself*, but rather from yourself, instead of *from external sources*. This is a *process of self-reflective decision-making* that is crucial at the inception stage of a research project.
- The **goal** of this stage is to make sure that you are fully aware of your own *motivations* and *values*, are confident of your *priorities*, and have taken stock of your *assets*, *capabilities*, and *limitations*.
- Part 1 teaches you how to avoid the ever- present risk of outsmarting yourself.

5.1 Questions

- This chapter helps you navigate the first challenge you will face in your research process:
*How do you transform broad and vague “**topics**” of interest into a set of concrete and (for you, at least) fascinating **questions**?*
- In the earliest phases of research, most people don’t have specific questions in mind. They have *topics of interest*.
- The main challenge is not identifying potential topics of interest, but in moving from these *generic topics* to a *specific set of questions*.

5.1.1 A Topic Is Not a Question

- A **topic** suggests a *field* or *scope of inquiry*.
- Having a topic makes one feel *solid*, *self-aware*, *oriented*.
- Topics can be deceptive, however. They are immense and **abstract** categories.
- But their use to the researcher is limited for one very obvious reason: ***a topic is not a question***.

- You can see already how topics can even be **obstacles** to the research process. Simply put, when we speak about topics, we could be speaking about *anything* (and thus *nothing*) at all.
- By themselves, topics are not very good guides for the research process. That’s why they can be dangerous.
- When you have a *topic* and are struggling to *turn it into a project*, the common advice you will hear is “**Narrow it down.**”
- We call this ***the Narrow-Down-Your-Topic Trap***.

A more discrete scope that reduces the volume of sources you need to analyze can, to be sure, *answer the when and where questions*. But a *topic alone* – even a “narrow” one – is **insufficient**, because it still leaves *unanswered the how and why questions*. Tell someone your “narrow” topic, and they may still have *no clue what you’re doing*. **Even a “narrow” topic cannot tell you what to do.**

Simply put, you cannot “narrow” your way out of *Topic Land*.

- Every researcher needs to figure out ***what to do*** and ***how to do it***.
the question that comes before *what* and *how* is ***why***.
- Besides, “gaps” in human knowledge are infinite. *Why fill this particular gap?*
- Most researchers (even seasoned ones) instinctually try to justify their incipient research ideas using the vocabulary of “**importance**” or “**significance**” – *as defined by an imaginary, external judge*.
- *Out of the infinite number of potential topics of interest, why am I drawn to this one?*
If I had to guess, what is my connection with this topic?
Why is it so magnetic to me?
- Here’s how we’d **phrase** them for a researcher trying to *move from a topic to questions*:

1. ***Make yourself vulnerable.*** The questions one generates during this early phase are ***not final products***.

at this stage, our questions *don’t need to be polished* or even *coherent*. All they have to be is ***honest, to the best of our knowledge. Trust yourself.***

2. ***Keep the conversation affirmative and nonjudgmental.*** *Neither the researcher nor the Sounding Board* said anything to *denigrate* the researcher’s *assumptions* about rationality.

At the *brainstorming* stage, it’s easy to shut down lines of inquiry *prematurely*. Or perhaps by chiding oneself with high-level language. *Resist the temptation*. Far better is simply to *allow the questions to proliferate*, no matter how seemingly *unimportant, naive, incoherent, scattered, or biased* they might seem.

Whether you’re working alone or with someone else, the goal at this point is ***simply to generate questions***.

3. ***Write down your ideas.*** The researcher and *Sounding Board* wrote down *all the*

questions as they spilled out.

As we will emphasize again and again, during this early phase of research, thinking about things is not enough. You need to ***get things down in writing***, to create ***traces of thought*** that you can later use for other purposes.

4. ***Generate questions internally.*** The questions you should be aiming at now are those ***driven by your own knowledge, assumptions, and curiosities.***

At this point, don't try to think from the "outside in" by trying to *generate questions* you think might ***satisfy some imaginary judge.***

- For most of us, the challenge is greater. We might be drawn to a particular topic without having any idea why. Or, perhaps more accurately, ***some part of us knows why, but the rest of us*** – the part of us that has to field questions like "Why does that interest you?" – ***still has absolutely no idea.***
- You will learn how to bring together
 - the ***intuitive*** part of you that ***knows***, but ***cannot speak***;
 - the ***executive*** part of you that ***speaks***, but ***does not know.***
- ***Questions lead us in specific directions*** – whether toward ***specific answers*** or to ***primary sources*** that we need to answer the questions or to the work of fellow scholars who are grappling with similar questions (i.e., secondary sources) or, more often than not, to more and better questions.
- Questions have another virtue. Every question a person asks about the world is *a piece of "self-evidence" about the researcher* – evidence that helps the researcher ***reflect on their own intellectual, emotional, and personal motivations*** for asking the question in the first place.
- The *goal* here is to ***explain***, rather than simply assert, ***one's interest in a topic.***

They require you to ask *probing questions* about yourself
- **Exercise 5.1 (Search Yourself)** (*check in early sections*)

The goal: To use a list of primary-source search results to figure out the aspects of your topic that most interest you, and draft questions based on these interests.

- 1.
- 2.
3. *On most of these sites, you won't be able to view the original source, only the catalogue entry. But even if a site does offer full text results, try not to get caught up in any one source for too long at this point. This is not yet the time for close reading.*

Instead— and this is key— while scrolling through your search results, try to imagine that you are strapped to an EKG machine that is recording the electrical pulses going through your system as you read.

Which primary sources raise your heart rate, even slightly? Write them down. Which ones have no effect on you one way or another? Take note of them too (since, a bit later

on, we will also be taking stock of things that bore you!).

The goal right now, as we said above, is to “**read yourself**” as you read other things.

Why bother? How does this get a researcher any closer to discovering their research direction?

Given how efficient we are at ignoring stimuli, it follows that when we do take notice of something – however small or insignificant – we should take notice that we’re noticing. This form of self-evidence gives a potential clue about our underlying concerns and curiosities.

Put plainly, whenever your mind takes notice of something – anything – you can be certain that there is a question there, even if you are not sure what that question is.

Learn to **pay attention to these clues**, and then to uncover the questions whose presence they indicate, and you’ll be able to move quickly and effectively from generic topics to precise and generative questions.

“Noticing what you are noticing” can be surprisingly difficult.

4. Go back to your search results. Write down, circle, or asterisk the ones that seem to **have any effect on you**, however small.

Write a list out by hand, copy and paste the titles of the sources into a text file, or click a checkbox to save those sources in a folder or email. However you choose to do it, take notes.

5. Once you have an initial list of at least ten items, take thirty minutes or so to ask yourself three questions about each item, setting down your answers in writing:
 - What does this make me think of?
 - If I had to venture a guess, why did I notice this one?
 - What questions come to mind for me when I look at this search result?

Your only audience is you, so allow yourself to be inarticulate, instinctual, and honest.

6.

7.

Common **Mistakes**:

- Not writing things down
- Getting bogged down in **individual sources too soon**
- Excluding “fluke” search results that **seem unrelated** to the keywords you entered in the database or unrelated to your topic
- Feigning interest in a search result that seems “**important**,” even if it doesn’t really interest you
- Only registering interest in search results for which **you think you know why** you’re interested in them, instead of being more **inclusive**

- Trying to make a list of noticings that is **coherent** and fits together
- When speculating about why a search result jumped out at you, worrying about whether or not the reason is “**important**,” based on some **imagined external standard**

- **Exercise 5.2 (Let Boredom Be Your Guide)** *The goal:* To become **attentive** to your **active dislikes**, identifying questions that you “should” (in theory) be interested in based on your topic of interest, but aren’t. By **understanding what you don’t care about** regarding your topic, you accelerate the process of figuring out what you do care about.

After all, the most common reaction human beings have to **boredom** is **avoidance**. We try to dismiss or ignore things that bore us.

Boredom is a powerful teacher, and deserves our attention. Boredom is not the same thing as disinterest or lack of interest. It is not a passive experience.

Boredom is an **active sentiment**, a **rejection** of something that, like excitement, provides you with more self-evidence through which you can understand your concerns and motivations more clearly.

By **taking note of your boredom** – in precisely the same way you just did with your excitement – you will gain clues about what your real research questions and problems might be.

Ask yourself:

- What about your chosen topic bores you?
- Among the potential questions or subtopics that derive quite naturally and obviously from your stated topic, which ones repel you, perhaps even unnerve you?

Taking account of your boredom is part of your conversation with your research-self. Besides helping the process of **elimination**, steering you away from **unprofitable lines of inquiry**, boredom can also help you to ask better questions and zero in on your Problem.

Common Mistakes:

- Denying boredom, or feigning interest in something because you feel it’s “on topic” and demands your interest because it’s “important.”
- Engaging in circular logic.

Boredom, like inspiration, is a dynamic process that happens between you and whatever it is you’re interacting with. The sensation of boredom is the by-product of reactions between the substance that makes you you, and the substances of the reality you’re encountering.

- **Exercise 5.3 (Go Small or Go Home)** *The goal:* To generate **specific, fact-focused questions** about your topic before you’ve done in-depth research. These will lead to bigger questions later on.

Try to **avoid** posing questions that strive to be **profound** or too **big-picture**. If you find yourself asking questions about the essential “meaning” or “significance” of your topic, chances are you are thinking too abstractly.

Remember, too that question means question – **with a question mark** – and not a statement or sentence fragment masquerading as a question.

Again, your goal here is not to **justify** the significance of your project **to someone else**. You need to start with questions about **basic facts**.

Specificity is the goal at this point, for two reasons

- First, it is only through small questions like these that you can begin to **form a picture in your mind** (and in your notebook) about the **core fundamentals** of the topic you are researching.

To try and answer “profound” questions at this point – about “meaning” and “significance” – is **premature**, since you don’t yet have the facts, much less the opportunity, to analyze them.

By contrast, the more facts you know the greater command you begin to have of your subject matter. This, in turn, prepares you for the process of asking “bigger” questions – “profound” questions – when the time is right.

- Second, lurking in one or more of those “small” questions may be an **unexpected question** that could, when you hear yourself ask it aloud, send your research off into an entirely **new direction**.

When you begin to ask (and then to answer) precise and seemingly **mundane** questions like these, you begin to **liberate yourself** from the confines of **vague** and **unproductive “topics,”** moving instead toward specific and coherent clusters of questions that will, over time, add up to something compelling, **open-ended**, and **doable**.

Asking **precise factual questions** is one **key** to **escaping Topic Land**.

Common Mistakes:

- Asking vague, grand, abstract, or big-picture questions about “meaning” or “significance,” instead of specific and **precise factual questions**
- Not asking actual questions (with a question mark), but instead writing statements or sentence fragments – **topics masquerading as questions**
- Not asking a question because **you think you couldn’t answer it**, perhaps because you think that the data doesn’t exist or is unattainable
- Asking **too few questions**, resulting in an inadequate quantity of self-evidence
- Most importantly, in formulating these possible research questions, you’ve set aside for the time being any *concerns* about *whether or not your questions are Important*, with a capital *I*.
- Your list of questions contains questions that **matter to you**, even if you don’t know why yet.
- As a bonus, you also have *an initial set of primary and secondary sources* from your database searches.

5.2 What's Your Problem?

- In this chapter, you will begin to *find and use primary sources*, and you may find the answers to at least some of your questions. But answering questions will not be the primary focus. *Educating your questions will be the focus.*
- It is a fundamental part of this stage of research: your questions are *underdeveloped* at this point because you have not yet had the chance to conduct research into your subject matter.
- it is true that it takes a lot of research to *arrive at the right questions*. And then it *takes more research* to *answer these questions* and *generate new ones*.

In this early stage of research, *the goal is not, as many assume, the generation of answers*. It is about *the refinement of your existing questions* and *the generation of new (and better) ones*.

- The goal of this chapter is to help you *identify and articulate the problem* underlying your many research questions.

5.2.1 Don't Jump to a Question (or You'll Miss Your Problem)

- Here's a simple way to *distinguish* a *problem* from a random set of *curiosities*:
if it changes by the day, week, or month, chances are it's a passing curiosity. If it endures, it just might be a problem.
- A problem is a nagging presence within you – one that *disturbs, bothers, and unsettles* you, but also *attracts, compels, and keeps you coming back*.
A problem is something that follows you around. it calls out for you to try to solve it.
- Your job is to give that problem a *name*, to *identify a case of that problem* that you will be able to study (given your personal abilities and constraints), and to figure out *how to study that case* so that you might arrive at a *broader solution*.
- Researching a problem requires asking questions, of course, but (again, to state the obvious) *a question is not a problem*.
- You can think of plenty of questions that have answers, but whose answers do not solve any problem. So you want to make sure that *your questions are indeed problem-driven*. This is why it is so important not to jump to a question.
- A *problem* has several *functions* for the researcher, among them the following:
 - It *motivates* you to *ask questions about your topic*.
 - It *determines which* questions you ask.
 - It *defines* the *what/why/when/how* of *your engagement with your topic*.
 - It *guides* the *path of your inquiry*.
 - It *shapes the story* you tell when the time comes to share your research results.
- The next steps in this chapter will help you figure out
 - how to *improve the questions* you have already generated;

- how to use sources to *identify the problem* motivating your questions;
- how to use your Problem to *generate new and better questions*.
- What the early-stage researcher has to **avoid** is ***jumping to a question***. You have generated many questions, and the risk now is that you'll feel pressured to jump ahead and ***choose one prematurely***.

The Jump-to-a-Question Trap can be as harmful as *the Narrow-Down-Your-Topic Trap*.

5.2.2 Stress-Testing Your Questions

- Now that you have done the work of producing a multitude of questions – small, factual questions, ideally – you will still need to ***stress-test, refine, and winnow them out, removing any dead ends, enhancing the rest, and adding additional questions*** that will better serve your research process.
- Here are *two ways* to stress-test your questions and improve their soundness.
 - The first ***focuses on language***;
 - the second is subject-specific and ***focuses on sources***.

We recommend that you tackle them in that order

- **Exercise 5.4 (Run a Diagnostic Test on Your Questions)** *The goal: To ensure that the vocabulary, grammar, and phrasing of your questions are **specific** and **unprejudiced** so that they do not presume a certain outcome.*
 1. *have you phrased them in more general, and vaguer, terms like “This is an examination of,” “I plan to explore ...,” or “My project is about the question of ...”?*

*If you find yourself articulating your questions as “I want to examine how” something happened, there is a fair chance that what you have are not really questions at all, but rather **topics disguised as questions**.*
 2. *Do your questions rely on broad, generic, imprecise, or sweeping adjectives Try to cut such adjectives and adverbs out entirely.*
 3. *Do your questions depend upon collective nouns? If so, do your best to replace these nouns with more precise demographic categories*
 4. *Do your questions contain verbs like “influence,” “affect,” “shape,” or “impact” or passive constructions such as “was affected by,” “responded to,” or “reacted to”? In such cases, chances are high that you are building your questions in such a way that they **rule out** an entire set of **possible** answers and outcomes. **Rephrase to avoid presumptions** that could result in confirmation bias.*
- By the end of this process, your questions should meet these criteria:
 - ***They should be clear, precise, and jargon-free***. If your questions are too hard for a colleague or mentor to understand, this means that you (and not they) still don't get what your Problem really is.
 - They should be ***rooted in verifiable and falsifiable data***. Your research questions

should have **integrity**. This means that they should be inspired by fact, rather than by speculation, prejudice, or opinion.

- They should be **indifferent to the outcome**. A research question *should not presume a certain answer*. If yours does, rewrite it to *eliminate that presumption*.
- They should be **clear about the subject**. Your questions should not be reliant on broad categories of identity. Be as specific as you can be about the *who* in your question.
- They should be **raw** and **undisciplined**. At least for now.

If the questions seem *random* to you, let them be *random*. If they seem *unrelated* to one another, let them be *unrelated*.

- **Leading questions** are so *common* and so *prejudicial* to the research process that it's worth looking at one extended example.

What you want to avoid is building your questions in such a way that you actually **need** this “influence” to exist in order for your questions to be *viable*. Almost inevitably, you will end up discovering **specious** “proof” of influence in primary source material, misleading both your readers and yourself.

- **Exercise 5.5 (Use Primary Sources to Educate Your Questions)** – *The goal: To learn how to **run keyword searches** designed to **enhance** or “educate” the **questions** you are asking about your topic.*

*These searches **uncover primary sources** relevant to your research that themselves contain **new keywords** you were previously unaware of (thereby enabling you to run follow-up searches to reveal even more, and more useful, primary sources).*

- *This next exercise requires you to delve back into your **specific subject matter** and into **primary sources**. Rather than trying to use primary sources to start answering the questions you’ve come up with, we want you to use them to **develop, refine, and expand those questions**.*
- *How do we use primary sources to strengthen and “educate” our questions? The answer is simple: primary sources **alert** you the **existence of other primary sources**, exposure to which helps you **ask more mature questions** about your subject.*
- *In this earliest stage of finding primary sources, then, your main goal is actually not to start answering your questions, but to use the primary sources you do find to **reveal new keywords** that you did not know existed – keywords that you can then feed back into the search process, in order to **uncover more and better primary sources, more and better keywords**, and most importantly of all, **more and better questions**.*
- *Should you really be expected to read, notate, and cite even more sources? **Not necessarily**. you’re **improving** your grasp of your topic by **eliminating blind spots**.*

Whenever you do a keyword search, ask yourself:

- * *Are there other search terms I should be using?*
- * *Might there be different spellings of the search terms I already have?*
- *You need to be as **confident** as possible that the search results you are getting are*

broadly representative and reflective of available primary sources, and not the by-product of narrow or unrefined searches.

- In some cases, you might be fortunate to find a primary source, like a historical dictionary, that explicitly addresses the shifting nomenclature surrounding the very topic the primary source is about, outlining for you the varied ways a given idea, place, community, practice, or the like has been named and renamed across time and space.

Even in such cases, however, remember that a primary source still is subject to its own **limitations**. But for your current purpose of finding more **generative keywords**, the source can be useful to you whether or not its data or conclusions are accurate, so you can defer judgment on those questions for the time being.

The goal for now is to determine if this source will lead you in the **direction of further primary sources** that you wouldn't have been able to find otherwise.

- As you continue to use primary sources to further “educate” your questions, two other helpful things will inevitably happen:
 - * you will end up **answering** some of your questions along the way,
 - * and you will find that some are **not** actually worth answering.

In other words, you will discover that some of your initial questions can be **scrapped**. This is precisely what you want to happen.

- as you learn more, your **instincts** regarding your subject matter improve. In “educating your questions” you are **educating your instincts**.

- **Exercise 5.6 (Make Your Assumptions Visible)** – The **goal**: To become aware of the assumptions you bring to your research project and use them to identify the problem that motivates your research questions.

- Now that you've analyzed your questions using the two techniques described above, there is still one more thing you need to do: **identify the assumptions** that underlie your questions, make them visible, and make peace with them.
- You arrived at your topic and your questions with a whole mess of assumptions.

After all, these are the reasons why you thought the topic is **interesting** and why you think your question is the **right** one for you.

- **Dispelling misconceptions** can be useful in many pedagogical and research settings. Yet the dispelling process, however well meaning, can have an **inhibitory effect**.
- Your assumptions about the world – even the most naive or negative – **serve** you at this point in the research process.
- They are what helped you **notice a detail** in a primary source. It was the **gaps between your assumptions and the world** as it really is that **gave rise to all those specific research questions**.
- **Write down every possible reason** why you might think what you think, even if you're uncertain, **without judging** them as good or bad.

*The point here is not to “expose” your assumptions in a negative way. Rather, the goal is to bring to the surface those parts of your thinking that remain **invisible** yet **influence** how you think.*

*you’re **admitting these assumptions** to yourself so that you can improve your own thinking. There is **no external judgment** here.*

- **Self-Centered Research** is premised upon a very different approach to **assumptions**, as follows:
 - *Assumptions should be made **visible**, and thus **vulnerable**.*
 - *Assumptions **should not**, however, **be stigmatized, silenced**, or driven underground, since this, counterintuitively, encourages holding on to them more tightly.*
 - *Assumptions are fuel **to be consumed**. Using them, you can achieve two goals at once:*
 - * *you can move in a **new direction**, and*
 - * *you can **exhaust your assumptions** in the process (meaning that you will eventually need new fuel).*
 - Your assumptions *shape your **expectations about reality**. And when those expectations are not met, it’s time to pay attention.*
 - **Exercise 5.7 (Identify the Problem That Connects Your Questions)** – *The goal: To **identify** the problem underlying your multiple draft research questions*
 - *By now, you have completed several exercises to produce a large number of questions about facts related to your project. What you now want to figure out is, What is the problem that connects your questions?*
 - - * *What relationships can you find between the different questions and fragments you have created and gathered thus far?*
 - * *What motivates your search for these particular facts?*
 - * *You could have asked any questions about this topic – why these?*
 - * *Which questions are the most compelling to you (and which seem less important)?*

Figure this out, and you’ll have accomplished a major breakthrough: you’ll have identified the underlying pattern that connects all (or most) of your questions in a coherent whole.

 - *The higher-level questions might not all add up. Don’t force them to.*

*What are the **parent categories** that connect two or more of your questions?*

*The connective tissue might not be obvious immediately. Finding it might require thinking **counterintuitively**.*
- **You Have a Problem (in a Good Way)**
 - You have now taken a close look at your many factual questions and **grouped** them under **parent categories** by **shared concern**.
 - You have formulated higher-level questions motivated by these concerns.

- The key concern that overshadows all others might have emerged in a flash or intuition.
- How do I know when I’ve truly discovered my Problem?

A problem is never a fleeting thing. Rather, it is something that is *sustained* and *enduring*.

- They are good to have, good to worry about, good to mull over.
- Ultimately, however, the final decision can only come from *you*.

Only you can know whether or not the cluster of fascinating questions you’ve generated thus far add up to a problem, or just a highly sophisticated and interesting set of curiosities.

5.3 Designing a Project that Works

- Having arrived at a problem, now you must make decisions about *what you can accomplish, given your available resources*.
- In particular, you need to think about *the primary sources* you’ll need to answer your questions and solve your Problem, as well as the *resources* you’ll need (including time!) to put together a *project*.
- The issues this chapter deals with are both *conceptual* and *practical*:
 - What are primary sources?
 - Which ones can you actually access?
 - How can you discover the full potential of a source related to your topic, or look beyond the obvious questions one might ask about a source to arrive at something original?
 - How can you use such sources to pinpoint your Problem?
 - What arguments can you make with your sources?
 - How many sources can you acquire? How much time will you have to analyze them?
 - How should you design your project, given your personal work habits, material constraints, or deadline?
- *Project planning* involves *self-assessment* and *visualization*.

5.3.1 Primary Sources and How to Use Them

- *Sources* are essential to original research, so figuring out how to identify, evaluate, and use them is a crucial practical consideration.
- Researchers conventionally divide sources into two general categories:
 - *primary sources* and
 - *secondary sources*.
- Research guides typically define *primary sources* as “original” or “raw” materials.

They are the *evidence* that you use to *develop and test claims, hypotheses, and theories*

about reality.

- In machine learning situations, *the primary sources* include:
 - *the original datasets*;
 - *the original codes*;
 - *the original experiment notebooks*.

Both original codes and original datasets are key to *reproduce* the experiment results, which is *the main message* behind a publication and its associated research argument.

The *publication itself* and its *experiment results* are all *secondary sources*.

- Most research guides define *secondary sources* along similar lines.

Secondary sources are *books, articles, or reports* that are *based on primary sources* and are intended for scholarly or professional audiences,

- we also want to reinforce a point well known to veteran researchers about *the dangers of defining “primary” and “secondary” sources in terms of absolutes*.
- Absolutist definitions of sources get in the way of the process of identifying primary sources and asking research questions, for two reasons:
 - Any source can be *primary, secondary, or not a source for your project*.
 - A source’s *type* is determined solely by *its relationship with the questions* you are trying to answer, and *the problem* you are trying to solve. A source is never inherently primary or secondary.

- A more accurate *definition* of *primary source* would be the following:

a source that is primary with respect to a particular question.

- Let’s take this one step further. Just as the same source can be “primary” or “secondary,” depending upon context, so too *can the same source be “primary” in dramatically different ways*.

The very same source can show up in the bibliographies of strikingly *different research projects*, and can be used by different authors to *pose dramatically different kinds of questions*.

- *how you treat this source* will lead you down either a narrow path or a broad avenue of potential research questions.

6 Get Over Yourself

- Your project matters to you. *Does it matter to the world?*
- Why should we engage with other researchers?
 - Getting over yourself is a movement from a more *narrow understanding of self* to a more *expansive one*. This process of exploration, discovery, and accretion is based on *engagement*.

Far from losing your sense of self, seeing your ideas in relation to others’ can help you

to *learn even more about yourself*.

- Another reason to get over yourself is entirely **pragmatic**: none of us, even when we do much of our work alone, inhabit a research community of one.

In the creation of any new research, we rely on the *ideas of predecessors and peers*.

One of the most important conversations you'll be joining is with the broader community of researchers who work on the same topic as you— a community commonly referred to as a "*field*."

- The overarching **goal** for part 2 is to *become aware of how other people's agendas and questions intersect with our own*, and to **make the most of those relationships**.
- Research is never a monologue, and your research identity is not static.
- You have to navigate your *Field* (and might change or add Fields), which involves interacting with different *Problem Collectives*.
- Doing so requires remaining **mobile** and **open-minded**. Yet the key to engaging with the ideas of others is to **maintain your own sense of centeredness**.
- Once again, you'll be stress-testing your ideas, assumptions, and theories, but this time you'll be doing so using the ideas, assumptions, and theories of others.
- You will **make other people's ideas your own**. Eventually, you'll help other people **make your ideas their own**.

6.1 How to Find Your Problem Collective

6.2 How to Navigate Your Field

6.3 How to Begin

7 What's Next in Your Research Journey?