



The
Pragmatic
Programmers

Become a Great Engineering Leader

Build Effective Skills
to Lead and Grow

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Leadership Is Writing

Given that we have established that good communication is what allows your organization to learn and progress, and that the most effective leaders are those that shift right along the spectrum of synchronousness, it therefore follows that much of leadership is *writing*: as you progress in seniority, you will spend more and more of your time reading and writing when it comes to the most important aspects of your role.

The Paper Triangle

Writing is the most efficient way to communicate complex ideas to other people. Reading is faster than listening. Additionally, the kinds of complex ideas that you will be generating and considering are best expressed in written form for others to consume: there's simply too much to understand otherwise. Combine this with collaboration tools that allow for asynchronous commenting and discussion, and you're left with no other viable alternative for communicating complex ideas. Embrace it.

In fact, writing is actually the process of thinking.³ When you write, you are forced to organize and structure your thoughts in a way that is logical and coherent. Often, it may take writing your ideas down to formulate them in the first place. As such, you should be finding as many opportunities as possible to write down your thoughts, since it is one of the most efficient ways to think.

What is important to highlight is that the text that you generate while thinking is *not* the finished text that you would want to share with others. If you've ever read a proposal or design document that is muddled or incoherent, then it's likely that the author has done the writing to help themselves think, but has not then gone back and put on their reader's hat and edited it so that it is clear and concise for others to interface with.

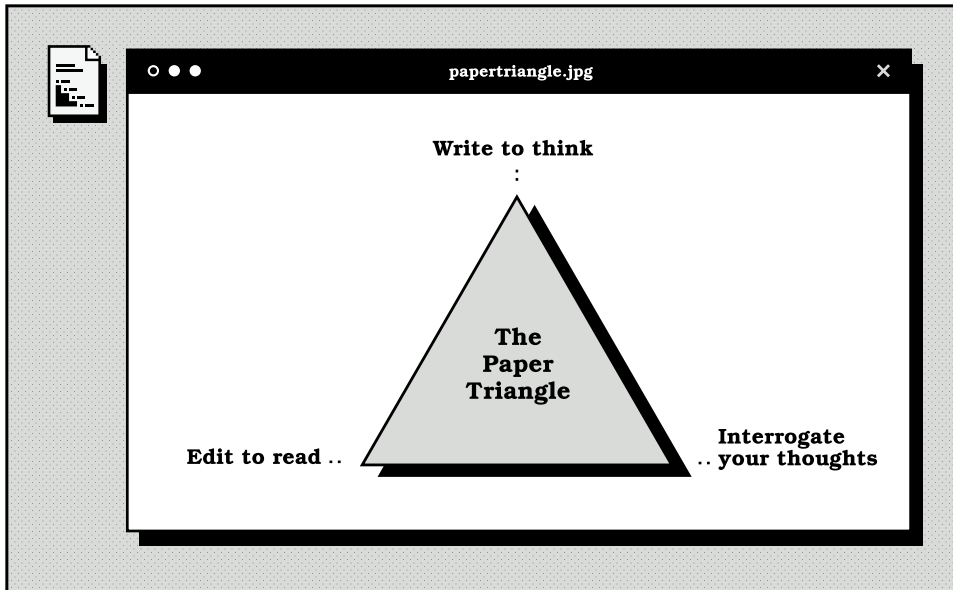
Remember the following algorithm when you need to explore ideas and think through problems:

- *Write to think*. When you need to think through a problem, write it down. Don't worry about how it reads, just get your thoughts down on paper.
- *Interrogate your thoughts*. Once you've written down your thoughts, interrogate them. Ask yourself questions about what you've written, and try to find the holes in your thinking. Pretend it was written by someone else. Make it better.

3. <https://www.youtube.com/watch?v=vtlzMaLkCaM>

- *Edit to read.* Once you've gathered your complete thoughts, go back and edit them so that they are clear and concise for others to read. *This* is the text that you will share with others.

Similar to the Iron Triangle of scope, resources, and time, we can think of this as the Paper Triangle of thinking, interrogating and editing, except this time you *have to do all three* to communicate effectively from your brain to others. The diagram below illustrates this.



If you iteratively follow this approach, not only will you surprise yourself at the clarity of thinking that you can achieve, but you will also be able to create artifacts that progress the thinking of your organization once you've shared them. If you produce an artifact that is poor, then it's likely that you've missed one of the three steps above. Keep the Paper Triangle in mind whenever you are communicating.

What Is Your Recommendation?

Since we are optimizing our communication to progress decision speed, we need to ensure that whatever communication we create strongly suggests where we should be going next. Oft-repeated advice is to have a “strong opinion, loosely held,” which means that you should by default be communicating in such a way that has a clear direction of travel (“We are doing this” versus “Should we do this?”), but doing so while ensuring that you are open to changing your mind if presented with new information.

The common bug with this advice is that it is often interpreted as “have a strong opinion *first*, and *then* be open to changing your mind.” In the hands of the wrong people, especially those that hold senior positions, this can lead to a culture of decisions being railroaded because others are afraid to speak up.

Instead, discard the “strong opinion, loosely held” phrase and replace it with a fresher and gentler one: *What is your recommendation?* This is a phrase that you should be using in your writing and in your conversations. Ask it from yourself and others whenever they are communicating a complex idea with multiple potential outcomes.

For example, if you are reviewing a design document, then the author should ideally lead the document with a recommendation of which path to take before iterating through them all. It helps frame the complexities and cuts right to the chase. If you are in a meeting and someone is presenting a problem, or seems to want you to make a decision on their behalf, then ask them what their recommendation is. It’s an incredibly powerful question.

Make it a part of your team’s culture to always state a recommendation when communicating ideas. Anyone can recommend, whether or not they have the authority to make the decision. It helps with escalations, it reduces the time taken to understand written artifacts that you are consuming, and, most importantly, it sets the tone that *every* communication should be a recommendation that progresses the state of the organization forward.

Building Your Second Brain

Some of the most important communication that you will do is with yourself. As we’ve already discussed, writing is the process of thinking, and you should be writing down your thoughts as often as possible. However, aside from the artifacts that you create for others, you should also be creating artifacts for yourself.

At the senior levels of an organization, you will be dealing with a lot of information: conversations, meetings, emails, documents, and more. Context-switching is an inevitable part of the job, so you need to ensure that you are able to capture and recall information as efficiently as possible.

The internet is chock-full of ideas of ways for you to capture and process notes, and the most important thing is to find a system that you like using. However, more recently at the time of writing, the concept of a *second brain* has become popular, and it is something that I have also had success with.

The idea of a second brain is that you have an interconnected system that allows you to capture, process, and recall information in a way that suits you. Popular second brain systems include Roam Research,⁴ Notion,⁵ Obsidian,⁶ and Logseq.⁷ You should spend some time exploring these systems and finding one that works for you.

The key to a second brain is that it is *interconnected*. Notes are created in plain text, often using a superset of Markdown, and they are linked together by simply surrounding particular words with double square brackets. When using the application, you don't need to actually create a new page for a note: you can just link to it, and the application will create it for you to write later. This means that you can create a note for anything and link it to anything else. It's a very powerful way of organizing your thoughts into a knowledge graph.

I have had the most experience with Logseq and Obsidian, which use plain text files that can be tracked in version control. This allows for easy syncing across different devices. In a similar way to the org-mode in Emacs, you can also use these applications to create a daily journal: the default home page of Logseq is an entry per day, which doubles as a to-do list.

Getting into the habit of more serious note-taking is a skill that you should invest in. It can feel like a chore at first, but it will pay dividends in the future. See whether you can keep your second-brain system open on the side of your screen all day while you work, and try to capture your thoughts when reading emails, documents, and having conversations with others in meetings. You'll be surprised at how much you can capture, how much easier it will be to understand that information as a side effect of writing it down, and also how much you will be able to recall in the coming weeks and months when you need it.

A second-brain system is like your own personal Paper Triangle. You are the writer and also the audience. The other neat side effect, apart from better organization and recall, is that if your notes are good, then with only a little extra editing, you can share them with others. The second-brain is the primordial soup from which further artifacts are born.

Here's a simple recipe for getting started with a second brain. We use the syntax of Logseq, but you can use any system that you like:

4. <https://roamresearch.com>
5. <https://notion.so>
6. <https://obsidian.md>
7. <https://logseq.com>

- *Create a new note each day.* This is your daily journal. Write down anything that you're thinking about, from your ideas to meeting notes. You can also use it as a to-do list.
- *Proactively create links for concepts that seem important to your context.* For example, if you are writing some notes about the API, then surround that word in square brackets, which will create a new note for it and link it in the knowledge graph. Essentially, anything that is an important noun in your knowledge domain should be a note.
- *Proactively use it as a reference.* If you think that something should exist as a note, and you look for it and it doesn't exist, create it. Even if it's just a stub. That way, you can link to it and come back to it later, and your knowledge graph is growing closer to how you intuitively think about connections in your actual brain.
- *View your knowledge graph regularly.* Daily or weekly, use the graph view to look at which concepts are becoming highly connected. For example, if you did a lot of thinking on the API this week, it might be worth developing that page further with more links and more content.

It may take a number of weeks or months for your second brain to feel like home, but it is well worth the investment. You will be surprised at how much you can recall from it, and how much easier it is to understand complex ideas.

Your Turn: Create Your Second Brain

Spend some time exploring the different second-brain systems that are available. Try to find one that works for you, and then start using it.

- What kind of system works best for you? Is it a page of notes per day, or do you think in terms of projects and tasks? Do you prefer to write in a linear fashion, or do you prefer to link notes together?
- Pick an approach and use it for a week. Be mindful to capture your thoughts as you go about your day, even if it feels unnatural at first.
- At the end of the week, review your notes. If you are using one of the systems mentioned above, you can view a graph of your notes and see how they are linked together. What can you derive from this? What can you learn about what you've been working on and thinking about?