

THINK WORKBOOK 004:

SYSTEM THINKING

*with Thinking in Systems by
Donella H. Meadows*

by Ivaylo Durmonski | Membership

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Exclusively for members, this deluxe workbook is made possible by members - thank you!

The benefits of this material are twofold: Help you better concentrate so you can fully immerse in the words. And, escape the online attention monsters.

If you think someone you know can gain from this downloadable, you can direct them to my [Membership](#) page.

Thank you for your support and for respecting my hard work!

AUTHOR'S NOTE



Hello and welcome! My name is Ivaylo Durmonski. I'm the person behind the website durmonski.com.

Here's what's next: A practical guide outlining the key actionable ideas from a remarkable book, followed by guided writing exercises.

This is the 4th Think Workbook (the previous ones are [here](#)). Like the rest, this workbook is designed to provoke thinking and doing. It will help you avoid sitting motionless and prompt you to act.

Ivaylo Durmonski

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THINK WORKBOOK |

INTRODUCTION

Instructions: Section outlining the core purpose of this workbook, a nudge to sign a pledge for doing, and what's actually included in this digital asset.

PURPOSE

It's hard to understand what the books we read are all about - how they apply to our lives, what strategies we can adopt from them, what we can change in ourselves based on the text - unless we actively think about the content inside.

The aim of this Think Workbook is to help you improve your reading habits, stimulate thinking, and ignite action.

The pages that follow patiently unpack the best insights from the book *Thinking in Systems: A Primer* by Donella H. Meadows, so we can make the most of the material.

The content is particularly useful in our busy, hyper-connected, and maddening world.

THE PLEDGE

The world is a complex organism. You can tell by observing a small town. Seemingly few things are occurring, but when you look closely, you can spot that there are a plethora of affairs - between different organizations, communities, small gatherings. Thriving in such dynamics becomes less of a burden when you understand system thinking.

Don't get stressed if you are not able to complete *everything* proposed in this workbook. Life and progress are not linear. Focus more on reading slowly to understand and apply. Progress can be painfully inert, but that's not limiting as long as it's genuine and continuous.

With that being said, before attempting any of the proposed ahead, I want you to consider signing a declaration. It's a simple act, but it can greatly increase your level of participation.

I promise that I will schedule time with myself to read and think, really think, about the content.

I promise that I won't feel bad about any unread material or unaccomplished exercise.

I'm perfectly aware that there is more content on the subject but more, in the online world full of endless rabbit holes, is more a distraction than a benefit.

Sometimes, I will be unsuccessful in my attempts to focus on the content or implement what's proposed in the book. That is normal. I will not let these things hold me back. Instead, I will regroup, find what's working best for me, and practice based on my own schedule.

Signed by:

WHAT'S INSIDE?

This workbook is divided into 7 short sections:

- 1. Theme:** A short introduction of the theme explored in this downloadable.
- 2. Toolkits:** The best actionable strategies outlined in the book, clearly presented.
- 3. Exercises:** Powerful ways to think about the content.
- 4. Reflect:** Reflect on the material and describe what you'll do next with the content.
- 5. Takeaways:** What's your takeaway from what you've read?
- 6. Reading material:** What to read.
- 7. Note-taking:** A gentle nudge to summarize the content, create a daily log, and take notes while you go through the suggested reading material.

THINK WORKBOOK | SECTION 01:

SYSTEM THINKING

Instructions: A short introduction of the theme explored in this Think Workbook. Placing the problem front and center along with the proposed solution.

PROLOGUE

There are inflows and outflows everywhere. And generally speaking, system thinking will help you understand how all things work together.

An outside event can ignite different behaviors under different circumstances and in different people.

For instance, a car passing very close can unleash an uncontrollable rage in some people, while others, can react in a very calm way. The situation is the same, simply their “system” is different.

Once you understand that

everything in a world is a system, you’ll start to see the core motivators. Identify the main elements. The key characters. You will know what levers to press to make corrections to the process or the purpose of the system to drive change - or prevent disaster.

Above all, you’ll start to see how even the simplest acts can impact complex systems, leading to undesirable results. This realization will make you more conscious about your daily decisions.

PROBLEM

There are situations where we think that others are responsible for our downfall. We think that competitors are causing our sales to drop. Or we think that our addiction to nicotine is because our friends are heavy smokers. But by focusing on these outside factors, we fail to see the internal processes and patterns. We strive to change systems that are beyond our reach. Therefore, we fail. But sadly, and more importantly, we don't quite grasp why we fail despite our efforts to make a positive change.

SOLUTION

System thinking allows you to spot patterns and thought processes that produce certain behavior. Sales are not declining because of outsiders. We smoke not because others around us smoke. These things happen because there are certain conditions inside our internal system that is reinforcing the bad behavior. To make a change, we need to change our system - how we think and how we ordinarily act. We cannot expect to reach different results if our system remains the same throughout our lives.

GET INSPIRED

“A system isn’t just any old collection of things. A system is an interconnected set of elements that is coherently organized in a way that achieves something. If you look at that definition closely for a minute, you can see that a system must consist of three kinds of things: elements, interconnections, and a function or purpose.” Donella H. Meadows

“If a factory is torn down but the rationality which produced it is left standing, then that rationality will simply produce another factory. If a revolution destroys a government, but the systematic patterns of thought that produced that government are left intact, then those patterns will repeat themselves... There’s so much talk about the system. And so little understanding.” Robert Pirsig

“If students think their purpose is to maximize personal grades instead of seeking knowledge, cheating and other counterproductive behaviors break out. If a single corporation bribes the government to favor that corporation, the advantages of the competitive market and the good of the whole society are eroded.” Donella H. Meadows

THINK WORKBOOK | SECTION 02:

TOOLKITS

Instructions: Powerful strategies from the book, clearly presented, making it easy for you to implement in your daily life.

REINFORCING LOOPS

We live in a dynamic world.

When something causes something, usually the result is reinforcing the initial action.

For example, the more you practice playing guitar (A), the more your skills will improve (B). And since you'll produce better melodies thanks to your improved skills (B), the more you'll practice (A).

Reinforcing loops can be both good and bad. That's why, identifying what type of reinforcing loop is at play is vital.

Another example: If you spend a lot of time watching TV (A), you'll feel engaged (B). The more pleasure you get from watching (B), the more time you'll spend on this activity (A).

Helpful for:

- *Identifying the reinforcing feedback loops that are self-enhancing.*
- *Determining negative activities that are leading to erosion.*

Prompts:

- *Exponential growth can be either good news or bad news - depending on what is growing. What type of activities (A) lead to results (B) where the results (B) reinforce the activities (A)?*
- *What type of activities in your life, business, job are snowballing in a good way - habits, investments, tasks, etc.?*
- *Think about the above again, but this time, consider what is bad?*

BUILDING RESILIENCE

In a dynamic world, to survive, you need feedback loops that are helping you recover and even prevent situations that might lead to a downfall. Plainly, you need to create a resilient system capable of handling variable situations in an ever-changing environment.

Our bodies are the perfect example of a resilient system. We can survive for days with a limited amount of food and water.

Understandably, there are always limits to resilience. We can't stretch our bodies forever. The more we push our limits, the more our resilience decreases. Imagine working long hours for weeks - your health will surely decrease at some point.

Helpful for:

- *Being elastic in a dynamic world.*
- *Enhance the ability to recover quickly from difficulties.*

Prompts:

- *Systems that are static (not getting better based on the changes) are unresilient.*
- *You can't expect your system to be stable all the time. Thinking about surviving against heavy odds should be part of your daily tasks.*
- *How can you build toughness without burning out?*

SELF-ORGANIZATION

Self-organization is something we take for granted. In the systematic world, this is explained as the ability of a system to make its own structure more complex. To picture this, think about when a child learns to speak. Or, when people unite for a cause.

For an individual or organization to be self-organized, it needs a mix of qualities: freedom for experimentation, creativity, open-mindedness.

In the corporate world, self-organization is usually removed. After all, you want people to fit in and do the job based on certain standards. In such an environment, self-expression can often lead to unpredictability and disorder.

Helpful for:

- *Reminding yourself that you have the power to become more complex.*
- *Encouraging self-organization in systems that are stuck in the status quo.*

Prompts:

- *Self-organization means that better solutions often arise from chaos.*
- *Are you using this power, or are you trying to suppress it in your organization/life?*
- *Are you doing the above because you are afraid of breaking your set rules?*
- *Think about how you can make a simple task more complex to reach better results. Don't think about the chaos that will emerge. You can always organize things later.*

UNDERSTANDING HIERARCHIES

Complexity naturally leads to nested systems - systems within systems. A country is a system, and each city inside is another system.

An assembly line is also a system. And each worker in the line has his own system that he's personally responsible for.

Understanding hierarchies is important because you will know what to treat when there is a problem. After all, if you have a liver problem, paying attention to the heart is pointless.

Apply the same logic to everything. If you want to improve your work, find the right system responsible for the outcome. Then, think about making improvements there.

Helpful for:

- *Making complex systems easier to manage.*
- *Treating the cause of the problem, not a broad area.*

Prompts:

- *If you're not getting the desired results, niche down. Are you trying to improve the right system or are you focusing on a larger branch?*
- *To make complex organization, tasks, easier to manage, create sub-systems. You can divide tasks into smaller tasks to get the job done faster and better.*

LEVERAGE POINTS

How do you modify the structure of your organization (or your life) to produce more of what you want and less of what you don't want?

The answer: look for leverage points.

This can happen by taking a closer look at the processes you're trying to change.

Understanding the limitations and bottlenecks. Figuring out what type of elements can be enhanced and what type of elements should be left untouched.

Delays in a system are a good starting point. If you get exposure to timely information related to your goals, but if your response is too slow, the on-time info loses its value.

Helpful for:

- *Changing your system in the right direction.*
- *Finding places in your system where a small change could lead to big results.*

Prompts:

- *Sometimes growth can be a bad thing. Especially if you can't respond adequately to the incoming feedback. That's why slowing the growth can be a leverage point. Think about what type of growth you can slow down to better deal with the feedback?*
- *Think about what type of elements you can't change in a system - taxes, fixed costs, big structures. Focus your attention on the things that you can change.*

THINK WORKBOOK | SECTION 03:

EXERCISES AND ASSIGNMENTS

Instructions: Each one of the following pages carries an exercise based on a short snippet from the book. The goal is to sit, think, and write down your answer after deep reflection.

EXERCISE #1: RECOGNIZE THE SYSTEMS AROUND

Everything is a system. The way a business operates is a system. Our digestive system is, well, a system. The school you go to and the company you work for are both systems. The things every system has are the following: elements, interconnections, and a purpose or some sort of function.

Elements in a typical job can be: product, employees, an office, etc. Interconnections can be: relationships, business strategies, internal rules, etc. The purpose is usually to make a profit.

Interestingly, changing the elements of a system will hardly lead to a different outcome.

You can change the employees - change the elements - but the end result will be the same if you don't change the purpose. For instance, focus more on helping people than making a ton of money.

With this in mind, think about the elements, interconnections, and the purpose of the systems you are part of. This will help you better understand the rules and eventually navigate better in the world.

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EXERCISE #2: LIMITING FACTORS WITHIN YOUR SYSTEM

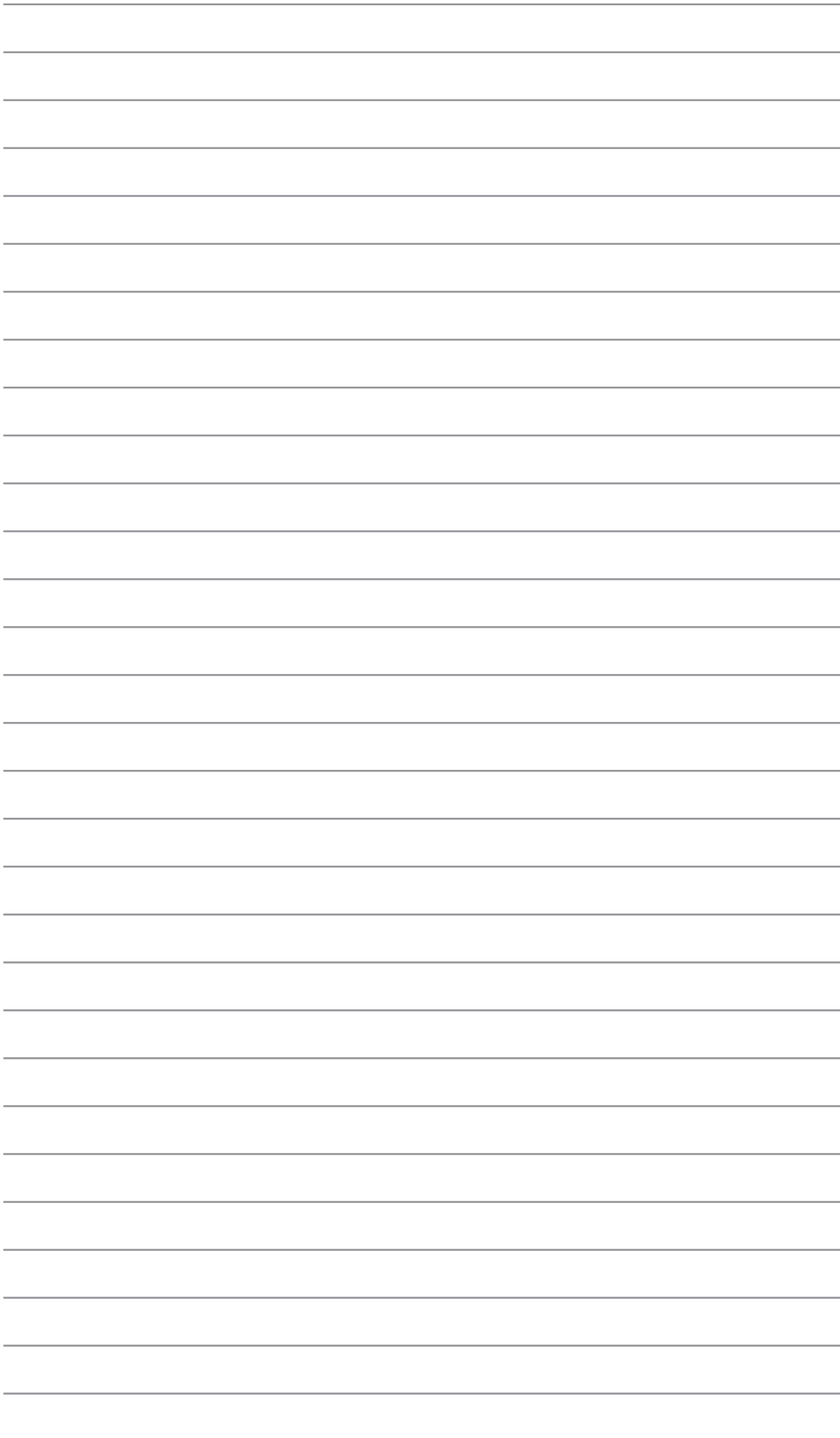
Problems occur first within your system.

Meadows writes: “They may be there to scoop up the advantage, but the losing company creates its losses at least in part through its own business policies... The flu virus does not attack you; you set up the conditions for it to flourish within you.”

Surely outside factors influence the effectiveness of our systems. We can act carelessly because we surround ourselves with people who do the same. We can blame the government for our recent losses. Nonetheless, focusing on external systems to change our own system hardly leads to any significant results - it's the opposite, you simply waste time.

To improve, you need to focus on correcting the limiting factors - what exact part of the system is not working - and accept that change should happen from within your organization, behavior, habits.

Take a closer look at the way you do things - your systems. List the factors that limit your growth. What type of solutions you can apply? Focus on internal fixes - not on external ones that you cannot change.



EXERCISE #3: RECOGNIZING REINFORCING LOOPS

Reinforcing feedback loops are self-reinforcing. Usually, we think of them as a good thing. The more money you have in the bank, the more interest you earn, which leads to even more money. However, these cycles can be also damaging.

The more fertilizer you use for the soil, the more the soil erodes. Therefore, the soil becomes less efficient.

It's important to understand that reinforcing feedback loops can lead to growth, but they can also lead to a collapse in a system. As the author writes, "A system with an unchecked reinforcing loop ultimately will destroy itself."

Depending on the loop, it's often more effective to weaken a particular reinforcing loop. This usually means slowing the growth of a system.

For example, if you're constantly increasing your workload, you'll exhaust more energy. This will not only lead to health problems, but also your overall output will decrease.

Identify the reinforcing loops in your systems - both the good and the bad.

EXERCISE #4: ENCOURAGE SELF-ORGANIZATION

Self-organization is a basic property of every human. In simple words, it's the ability to make a simple task more complex. This can be both good and bad.

Take speaking for example. When we're born, we make funny noises (+ we cry, a lot). With age, we learn to communicate, express our inner emotions through words.

In organizations, self-organization can be bad for the company itself. If you're the boss, you don't want a lot of people making your business more complex by adding extra stuff based on their desires. However, if you don't allow creativity, if you don't stimulate people to try different things, even if they aim to disturb the status quo, you'll surely struggle eventually.

Self-organization produces chaos and unpredictability. But only through disorder, we can find new solutions to the big problems.

With this in mind, consider the following: What type of task/activity in your life is considered set in stone? What "shocking" thing you can do to make improvements?

EXERCISE #5: AVOID ERODING GOALS

The eroding goals condition is also known as the “boiled frog syndrome.”

This is how the author defines it: “A frog put suddenly in hot water will jump right out, but if it is put into cold water that is gradually heated up, the frog will stay there happily until it boils. ‘Seems to be getting a little warm in here. Well, but then it’s not so much warmer than it was a while ago.’”

The point here is that if we’re not vigilant, we can slowly drift to low performance. Consider this: If you are regularly exercising, and you suddenly stop, this will be a noticeable change. Usually, you’ll go back to regular workouts. If, however, you slowly start to exercise less often, at some point, you’ll erase this habit from your system. You’ll lower your expectations. You’ll lower the performance. Your motivation, at some point, will reach a point of no return.

How to avoid this steady downfall? Keep an objective view of how good, or bad, you are doing. Keep standards high. Answer this: What in your life is getting worse? Keep in mind that your biases might prevent you from answering this question objectively. Ask a friend. Compare yourself to peers to find what needs improving.

THINK WORKBOOK | SECTION 04:

REFLECT AND NEXT STEPS

Instructions: The added space after each question is giving you the opportunity to express yourself, to talk to yourself - uninterrupted. This creates a moment in which you are able to plan your future steps.

Sometimes your system forms a certain goal that you pursue. Other times, the goal you set shapes your system.

For example, the more you play an instrument (the system), the more you may want to become a musician (the goal). That's why it's of great importance to take some time and consider both what you do (the system) and what you want to eventually become (the goal). If you don't, at some point in your life, you may end up doing the wrong things for the wrong people.

Think about what you want to achieve? What's the goal? What is your system for achieving what you want?

THINK WORKBOOK | SECTION 05:

TAKEAWAYS

Instructions: Capture your takeaways before the vague ideas and concepts disappear from your consciousness forever. I'll share mine first. Then, you share yours.

TAKEAWAYS:

My key takeaways:

- System thinking allows you to spot patterns, thought processes, problems, what works, what doesn't. Things that produce certain behavior. This way, you recognize exactly what needs adjusting.
- The more you do something (the system), the more this thing will become your aim (the goal). Both things power each other. Recognizing your systems and your goals is essential to focus on what matters.
- By pushing your limits, you build resilience. But don't push too far. There is always a limit. Expand your limitations, but recognize that you'll eventually hit a brick wall.
- New ideas are messy in the beginning. Embrace chaos. Allow yourself to experiment, even if this will disturb the current order.
- There are systems all around. What type of systems I'm part of? What type of systems are beneficial? What type of systems are harmful? What I can do to make a positive change in the systems I'm part of?

THINK WORKBOOK | SECTION 06:

READING MATERIAL

Instructions: Consider reading the book this workbook is based on. Or, the summary on my site. Focus on associating the newly acquired knowledge with your existing knowledge.

WHAT TO READ:

This workbook is based on the following book:

- Thinking in Systems by Donella H. Meadows: [/link to book;](#) [link to book summary/](#)

Other recommendations:

- Advantages of Systems Thinking [/article/](#)
- Tools for Systems Thinkers [/article/](#)
- A Philosophical Look at System Dynamics [/video/](#)
- Intro To Systems Thinking [/video/](#)

Keep in mind that you don't necessarily have to read/watch everything. The idea is to get a wide understanding of this single topic, so you can later better apply the concepts to your life.

THINK WORKBOOK | SECTION 07:

NOTE-TAKING

Instructions: The best way to start engaging with the content is to summarize it in your own words, take notes, and practice. Use the following pages (or a notebook or an app) to capture your insights and your daily progress.

Daily log (write a one-line entry/prompt each day):

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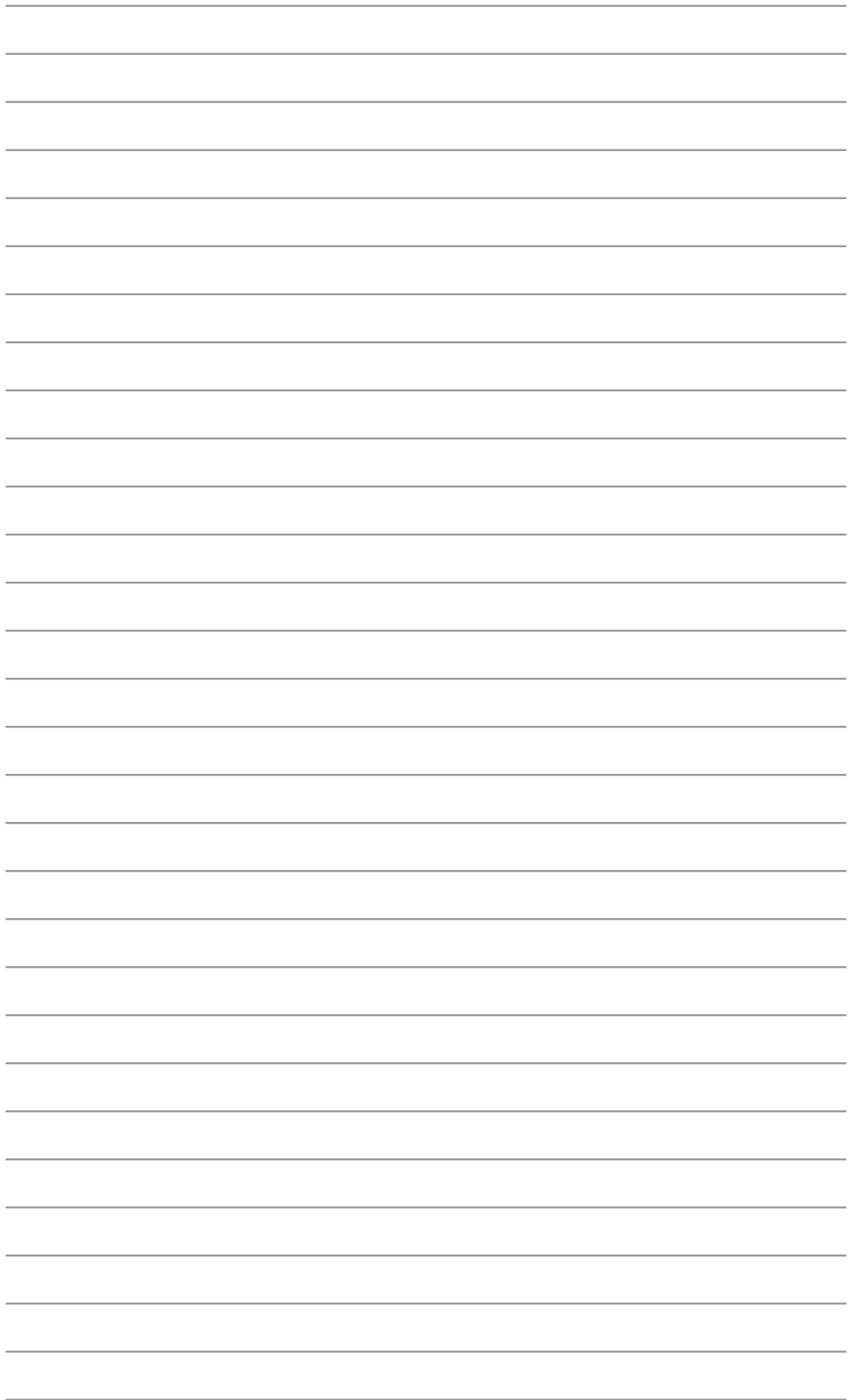
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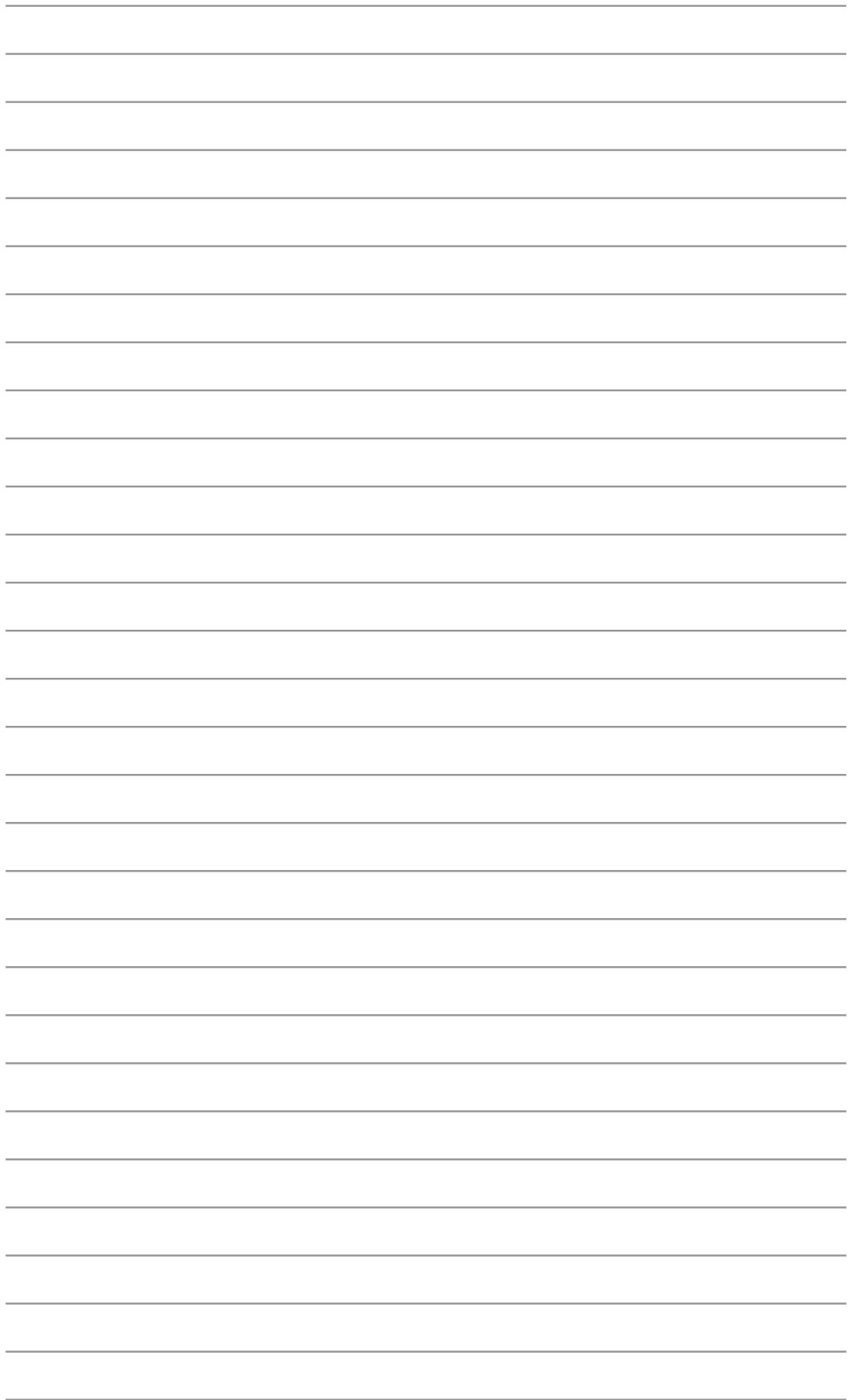
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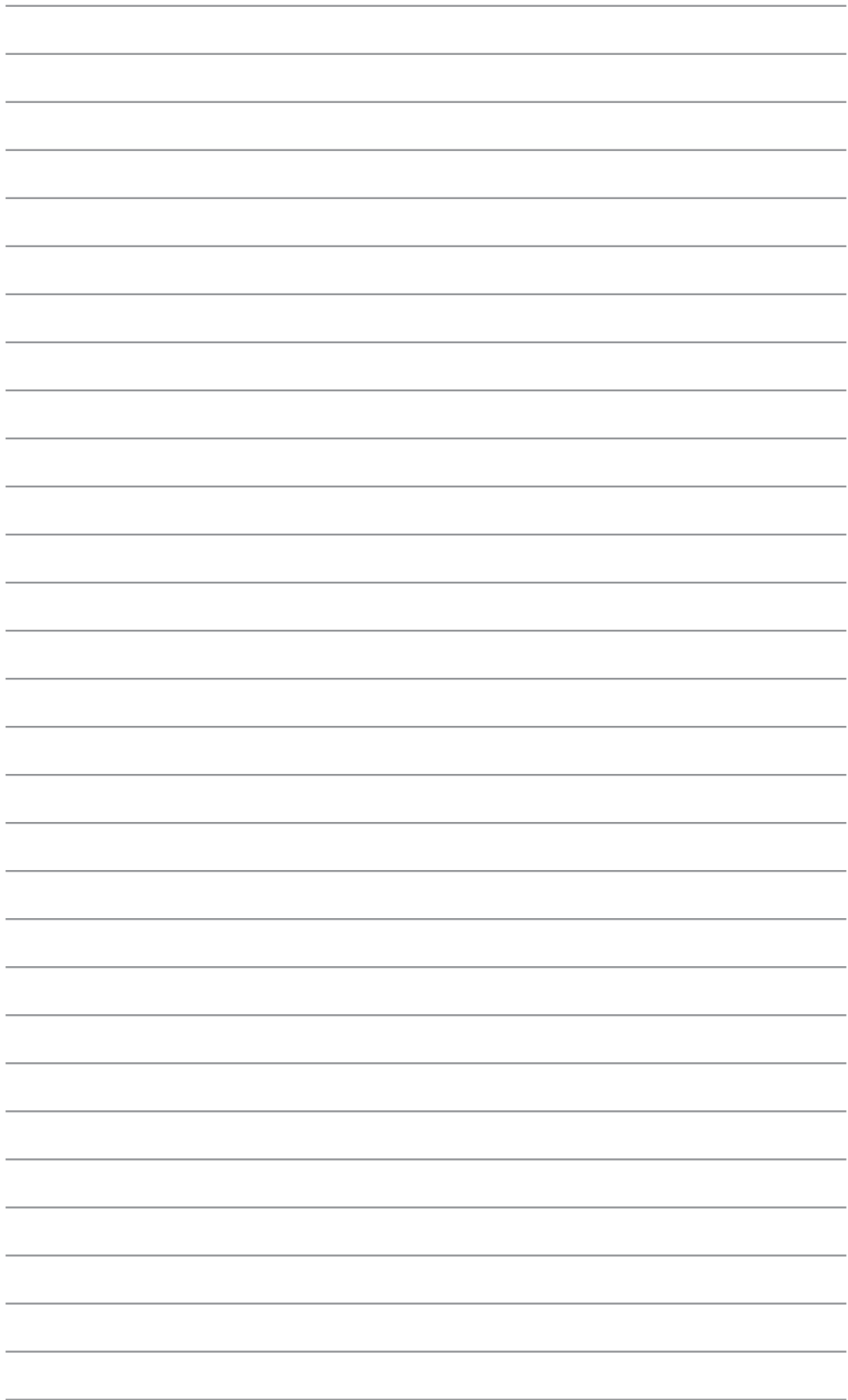
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END

All the mentioned ideas are offered only as a starting point. The main goal is to slow down and actively think about the content. This self-reflection will help you develop the skills you need to operate effectively.

Till next time!