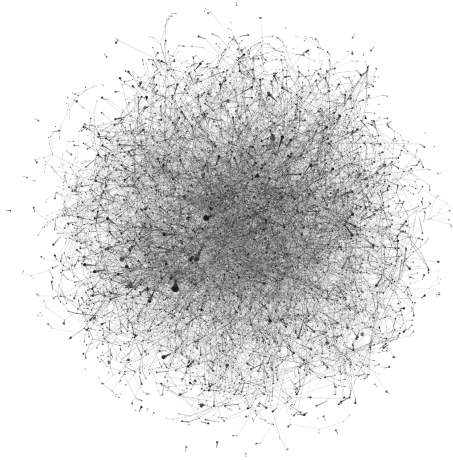


MIND ON MAPS

NAVIGATE YOUR THOUGHTS

METHODICALLY WITH DIGITAL MIND MAPS



ANTTI HALLA

Cover image: Visualization of a rather large mind map
Chapter image: Visualization of a mind map network
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Preface

IT'S AN EASY SATURDAY morning back in 2003. Nothing special to do – a day just for myself. I make a big cup of coffee, grab my laptop computer and sit down on the couch to think about my life.

Some months earlier I'd found a free computer program for *mind mapping*. In the beginning, it was more like a curiosity than a serious tool for me. It was fun to use mind maps for clarifying my thoughts into organized lists. This time was no different – I was

about to create a list and organize it – but this was going to be a big one. I started to write down everything I remembered had happened in my whole life – which turned out to be quite a lot. I spent the whole day glued to my computer screen, some 15 hours straight. That day I knew I had found something great – and the fact that mind maps help me *concentrate* was just a part of it.

It was an amazing experience. I started out by listing places, schools and people from my past. As I wrote these things down, more things started to come back to me – even minor details. I remembered old phone numbers and a certain bumper sticker of traffic lights I had on my bike when I was six years old. It ended up being a flood of memories and I literally couldn't stop writing them down.

I could have easily been overwhelmed because of the sheer number of memories and ideas popping up. That was when I first experienced the utility of mind maps in dealing with too much information. The maps allowed me to organize thousands of memories into logical groups that were easy to work with. I realized I couldn't write down every detail. However, I could create an *index* for those memories and come back later for a closer look if needed.

Day by day I found new ways for using mind maps. I used them for taking notes, planning, studying and solving problems. I used them at work as well as on spare time. Sometimes I sat down with my maps, without any specific goal, just to think about life in

general.

I found mind maps to be an immensely practical tool for all sorts of tasks requiring thinking and *memory*, and I started to use them every day and for everything. As I created new maps, I linked them to the ones I already had, gradually building up to a connected atlas of hundreds of mind maps. It evolved into a personal system for organizing information and solving problems as well as a tool for continuous learning and managing complexity.

Mind mapping transformed my life, and I'd love to share a part of that experience and excitement with you. Now, over 10 years later I'm still using them all the time. I don't even think about it anymore, just as I don't think about driving a car. It just happens.



Introduction

Our brain power has limits. We turn to mechanical tools for help when we run into the limits of our physical strength. In the same way, we can use tools to help us with intellectual work.

Things like pen and paper are tools of a different kind. Instead of the limits of the muscles, they help us overcome the limits of our brains – especially our *memory*. We can only hold a limited amount of things in our minds at once and our memories fade over time.

We need to *write down* numbers to perform difficult calculations and to draw diagrams to understand complex interactions. We're using pen and paper as a *cognitive tool*: they help us perform a task requiring thinking and memory.

As the amount of information to keep track of grows, the need to organize that information becomes apparent. Mind maps give us the structure to deal with that. We can split big concepts and systems into small pieces, and we can group separate ideas into a logical whole. We can find surprising connections and discover hidden assumptions in our thinking. We can quite literally re-wire our thoughts.

But mind maps with pen and paper take you only so far. With a computer, on the other hand, you'll be able to create, edit and manage *hundreds* of mind maps. You'll use links to keep track of connections between them – while still maintaining your sanity.

As much as this book is about mind maps as a specific tool, it's also about *mapping the mind* in general: exploring and enhancing the process of thinking and the structure of thoughts – using a digital tool to facilitate the process. Mind mapping – in the end – is a means to extend one's ability to think. For that reason, you won't find many pictures of mind maps in this book. Instead, you'll find an analytical, conceptual approach to mind mapping. This is an attempt to go below the surface of the pictures and to find what the whole activity of mind mapping is about – and how it can help you to *navigate your thoughts*.



CHAPTER **1**

Digitally enhanced thought

Our brain power has limits, but
there are ways around it.

Tools for thinking

Chances are you do some sort of thinking every day, and few of us would oppose being able to “think better” – whatever that means.

If we want to enhance our cognitive capabilities, we should have at least *some* idea on what we mean by that. What are the problems with our default setup? What are we trying to enhance? And most importantly: why bother?

Think about mental arithmetic. You can easily solve $2 + 2$ in your mind, but $7,983,274,598 + 4,345,234,545$ is difficult for most of us. You might even feel physical discomfort just looking at those numbers. That doesn't mean you can't do the calculation – you just can't do it *in your mind* that easily. Take a paper and a pencil and you can solve the sum in a minute.

You've maybe heard of the limits of our working memory. We can only hold about 7 items there at a time. Whether that number is exact isn't that important. The point is, that our *brain's capacity to hold thoughts in our minds has a limit*, and that limit is not impressive. Mind maps will help you break that limit by acting as an *extension* for your working memory.

Whether mind mapping makes you a permanently smarter person is debatable, but whether it temporarily expands your cognitive capabilities is not. Just as pen and paper extends your ability to calculate, mind maps will extend your ability to

think in general. The maps are – like the paper – an external memory storage for your brain.

If we want to do anything better – to bake a better cake, to build a better house – we can do that by becoming more skilled at the job. However, equipped only with our abilities, we are bound to hit a wall sooner or later. No amount of skill will enable us to build a skyscraper with our bare hands or to bake a cake without an oven. We need *tools for that*.

So, what then is a tool? Usually the first thing that pops into mind is something like a hammer. Something that helps you do *mechanical* work, with accomplishing a task. It's something so simple we tend to forget how big a difference tools make. Ever needed to pound a nail without a hammer at hand? Ever tried to light a fire without a lighter or matches? As with so many other things, it's easier to appreciate tools when you don't have them anymore.

We all come with some built-in tools. Look at your hand. You use it as a tool as well. You know how to count with your fingers: one, two, three, four, five... When you use them to keep count you're using them as a tool. But not as a mechanical tool like a hammer but as a *cognitive* tool – to help you think.

People have been using tools to think for thousands of years already. Our ten fingers were always there to assist in counting. The invention of writing allowed thoughts and promises to be remembered for longer than the fragile human memories would last.

1. Digitally enhanced thought

Tools enabled us to tackle problems that were beyond what we could solve in our minds.

Using mechanical tools as a metaphor, think of mind maps as a *lever*, which you'll use to lift heavy things. The longer you make the lever, the more leverage you get. With mind maps you're just not lifting physical objects – you're lifting thoughts, problems and ideas.

Mind map is also a *mirror*, that reflects thoughts instead of light. By looking at your maps you'll discover your personal biases and true priorities. You'll see the things you're obsessed about and – if you look for what's missing – the things you're avoiding. If you want to be honest with yourself, what do you do? You look into the mirror, of course.

Mind map the multi-tool

In this book, the tool of choice for enhancing our thinking is the *mind map*.

Specifically, I'll talk about mind maps on a *computer*. You don't necessarily need a computer to do mind maps. Start with pen and paper if you don't have a suitable device at hand. On the computer, you can use another tool of your choice – any old application that lets you write text will get you started: a text editor, a spreadsheet or a diagramming tool. Anything



CHAPTER 2

Map your mind

Navigating your thoughts is
easier with a good map.

When you set out on a journey to explore and map out your mind and thoughts, the obvious first question is *where to start*. My take on that is: start with what already occupies your mind. Deal with the thoughts on the surface first.

2. Map your mind

The surface thoughts include your daily tasks, hopes and worries. They change from day to day but much of that stays the same. Thoughts – especially the unwanted ones – playing on *repeat* means you're stuck. You're running in circles. It's possible to think your way out of these situations, but additional leverage from our cognitive tool of choice helps. Mind maps give you the extra hand you need to get over, through or around those things that won't let you go forward with your thoughts.

For me, the starting point was my past. I felt the need to understand myself better. Where do I come from? Where do I stand now? I was preoccupied with thinking about my past to the point that I had trouble seeing the future and enjoying the present. I was worried about having made wrong choices, leading to feelings of regret and disappointment. I had to deal with those thoughts first. Writing them down and organizing them into mind maps helped me clear the way for other things.

There are a million things that we can be stuck with. Since we have a limited amount of space here, I've divided them into four types that should cover a fair amount of topics: the past, the future, learning new and organizing work.

There is your *past* and your story. Creating maps for your personal history helps you get a balanced idea of who you are, what you have and where you come from. If you're done with your past, it's much easier to concentrate on the *future* – not to say that it's easy. It

can be surprisingly hard to find out what you actually want – and not just what you *think* you want. Learn to make the distinction between those two!

After you know where you are and where want to be, you're likely to notice a gap in your skills and knowledge – you need to *learn new* things. Finally, you'll tie all this together, get organized and start getting things done.

I'll introduce the four topics – past, future, learning and organizing – one at a time in this chapter. Follow through the steps and you'll be well on your way to navigating your life with mind maps.

Before we start, there's one crucial detail that you need to do to navigate your thoughts with mind maps efficiently. In fact, I know many who have given up on mind maps without ever discovering this simple but critical feature. The game changer is *linking mind maps together*.

The mind map palace

Using one-off mind maps every now and then is one thing. To me, the true power of mind maps as a personal information and management system comes from connecting everything together.

I stumbled across this by chance in my early mind mapping days. I was interested in memory techniques



CHAPTER 3

Mind map system

Explore, observe, improve.

Discovering the possibilities of linking mind maps together was a break-through moment for me. Before that, all I had was a scattered collection of individual maps. After introducing links, the collection started to gradually develop into a *system* of connected maps.

3. Mind map system

For me, mind mapping – as a skill – is about understanding the *structure* of the information and the *process* of working with it. It's about understanding which *outcomes* to expect when using maps and how to apply this knowledge in different *contexts*.

There is no single best type of a mind map or best way of creating one. One map structure is good for building a library of knowledge and another structure is better for organizing work to be done. One kind of a mind mapping process is good for analyzing complex problems and another kind is better for combining old ideas to create something new. However, regardless of what you're using your mind maps for – running a business, a family or a marathon – you can use the same *conceptual framework* to think and talk about your maps.

In this chapter I'll go through essential concepts that help you navigate your mind and your maps. The framework I'm introducing is heavily based on my background in programming and software engineering. You may find it quite technical – this is indeed the most technical part of this book – but bear with me on this one. The language of systems is not something reserved for engineers only.

I'll start with *data and program* – the basic building blocks that every mind map is built out of. From there I'll continue by introducing concepts bottom-up, ending in a discussion about *context*, which is one of the most important concepts in this book. Understanding

that and how it relates to mind mapping has made all the difference in my successful use of mind maps in various, well, contexts.

Data and program

When you add items to your mind map you're writing down *data*. Consider a bucket list of countries to visit:

- France
- Fiji
- Finland

In computer programming, everything is data. It's the raw material that everything is made of – the *stuff*. In order to do something with the data we create programs that process it. We even create programs that process those programs, by treating them as data in turn. Mind mapping is no different. Everything in the maps is data. What we're often doing is *refining* the data to contain more *information value*.

When you make a bucket list of countries you'd like to see, you're treating places as data. The way you go about making that list, is your *program*. You can describe that program as a set of individual instructions – *an algorithm*, if you like:



CHAPTER 4

Mind map ninja skills

Practice, practice, practice.

Mind map is a tool, an instrument, a weapon – choose your favorite metaphor. The better you're able to use it the more you'll be able to do with it. In the end it's not about mind mapping – it's about what mind maps *enable* you to do. As you get better using the tool it becomes a second nature – an extension of

4. Mind map ninja skills

you and your thinking – and you can be less conscious about it. Just as a performing concert pianist doesn't think about notes or fingers but concentrates on creating music and listening, you'll focus 100% on your subject – forgetting all about the thinking tool itself. How can the pianist do it? Because of thousands of hours of *practice*.

To reach the skill level of a mind map ninja there are a few things to master. I've divided them here to thinking, emotional and physical skills. The connection between mind mapping and thinking is logical and the main focus will be on it. Besides that, if you spend a lot time with your maps you'll start getting more attached to them. Some of your thoughts and ideas can get quite close to your heart and it's important you're aware of the emotions that come with it. Finally, there's the physical part. Do you itch for becoming faster at handling your mind mapping tool? Practice until just the thought of mind mapping makes your fingers tingle.

Not every ninja plays the piano, but there's a common theme uniting martial arts and playing an instrument: to become a master of your art you need dedication and discipline. You'll get better by practice. So practice, practice and practice.



CHAPTER 5

Exploring your inner world

Here be dragons.

When you explore your thoughts systematically – and build a connected network of mind maps about that, of course – you’re bound to encounter new

5. Exploring your inner world

thoughts and thought patterns. Some of them are going to be useful and some of them not. Some of them will be just confusing. You'll come across old thoughts that you've tried to forget. The thoughts and the emotions they wake up can be intimidating, even plain scary.

You'll eventually arrive at the edge of your inner world. Like the ancient explorers and map makers already knew, at the edge of the world lies the realm of dragons and other bad guys. A region of a map uncharted by experience wasn't left empty – it was filled by imagination instead. Drawings of sea monsters and other scary creatures appropriately reflected our deep rooted fear of the unknown.

Mind mappers and thought explorers too need to decide how far they're willing to go on their internal expeditions. Are you happy staying inside the comfortable zone of your current knowledge and understanding? Or do you want to go look for yourself whether there really are dragons out there – or in this case, *in there*.

Getting to know some of the inner creatures in advance helps you prepare for these encounters. The following are of some of the things that you'll meet along the way.



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