

Multi-level summaries:

Making non-fiction books
easier to understand,
remember and act on

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Multi-level Summaries: Making non-fiction books easier to understand, remember and act on - Summary

The Problem

Problems non-fiction readers face

- Finding it hard to get started
- Losing interest in the middle of a book
- Drowning in detail
- Feeling confused when returning to a book after a break
- Forgetting what a book is about
- Not knowing how to implement a book's ideas
- Getting to grips with a previously-read book

Two ways of approaching a book

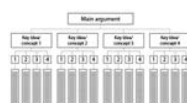
Sequential structure

Seeing book as a series of pages broken into chapters



Meaning structure

Understanding how a book's argument is structured



Key issue for readers

The key issue for readers is moving from a book's sequential structure to its meaning structure.

Readers need to understand a book's meaning structure to get the most out of it.

Implicit meaning structures

Most non-fiction books have more of an implicit meaning structure. This:

- 1) increases cognitive load - the cognitive energy taken up by decoding reduces the energy available for understanding, assessing and reflecting
- 2) makes retrieval practice more difficult so readers don't remember much of what they read.

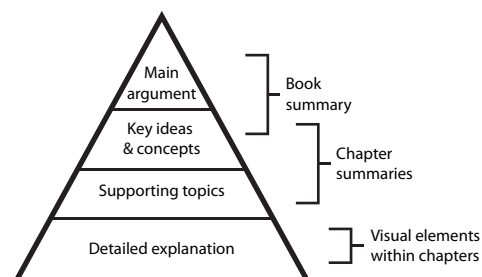
The Solution

Multi-level summaries

The solution is to use multi-level summaries (MLS) to provide explicit meaning structures.

A multi-level summary consists of:

- a **whole book summary**, showing how the book is structured and giving details of its key ideas and concepts
- **chapter summaries**, showing the chapter structure and its key ideas/concepts & supporting topics
- **visual elements** in chapters.



Analogy of Google Maps



A good analogy for multi-level summaries is Google Maps.

Both provide the opportunity to view information at different levels of detail.

Users can zoom in for the detail or zoom out for the big picture.

Benefits of multi-level summaries

1. **Finding it hard to get started** - MLS's provide an easy entry point into a book.
2. **Losing interest in the middle of a book** - MLS's make it easier to find the parts of a book that are of most interest to the reader.
3. **Drowning in detail** - MLS's allow readers to switch quickly between the detail and the big picture.
4. **Feeling confused when returning to a book after a break** - MLS's allow readers to refresh their memory easily.
5. **Forgetting what a book is about** - MLS's make retrieval practice much easier.
6. **Not knowing how to implement a book's ideas** - summaries should outline the recommended behaviour and strategies .
7. **Getting to grips with a previously-read book** - MLS's provide an outline that can be read in 15-20 minutes.

Examples



INTRODUCTION

The purpose of this paper is to show how multi-level summaries can make non-fiction books easier to understand, remember and act on. (Note 1)

Part 1 looks at problems with the current structure of most non-fiction books. Part 2 looks at how multi-level summaries can solve many of these problems.

PART 1: Problems with the structure of non-fiction books

Problems with reading books

Many readers don't seem to get as much as they would like out of their reading of non-fiction books. Here are some of the problems they encounter.

1. Getting started with a book

- **finding it hard to get started.** We all know the experience of excitedly buying a book and then having it stand unopened on a bookshelf for months, years or even for ever. Being confronted with hundreds of pages of text combined with the knowledge that they will take many hours to get through can make it hard to get started.

2. Giving up on a book

- **losing interest.** Many books are not finished because readers lose interest. A common experience is enthusiastically starting a book and then running out of momentum in the midst of Chapter 1 or 2.

3. Problems when reading a book

- **drowning in detail.** When books don't have a clear structure or summaries of the main points, it's easy for readers to get confused as they start drowning in too much detail and losing sight of what the key ideas are and how they relate to each other.
- **returning to a book after a break.** It's easy to forget the thread of a book's argument after putting it down for a few days or weeks. Readers then either have to carry on reading superficially without remembering the outline of the book's argument or spend time struggling to identify the key ideas from the pages they have already read.

4. Problems after finishing a book

- **forgetting a book's ideas.** Many readers complain about how little they remember of a book's ideas even after they have spent hours reading it. That's to be expected. Cognitive psychology teaches how easily facts and ideas are forgotten. It is difficult to revise the ideas

in a book without taking time-consuming notes which most readers don't have either the time or the motivation to do.

- **struggling to work out what action to take.** Many books suggest new behaviours and strategies for the reader. If these strategies and behaviours aren't summarised adequately, it's easy for a reader to move on to another book without taking any action on the previous one.
- **returning to a book.** When readers want to remind themselves of the ideas in a book they have read in the past, a detailed re-read is often needed in order to get to grips with the book again.

Problems that non-fiction readers currently have	
1. Getting started with a book	
1.1 Finding it hard to get started	Being confronted with a long book and knowing it will take many hours to read can be daunting.
2. Giving up on a book	
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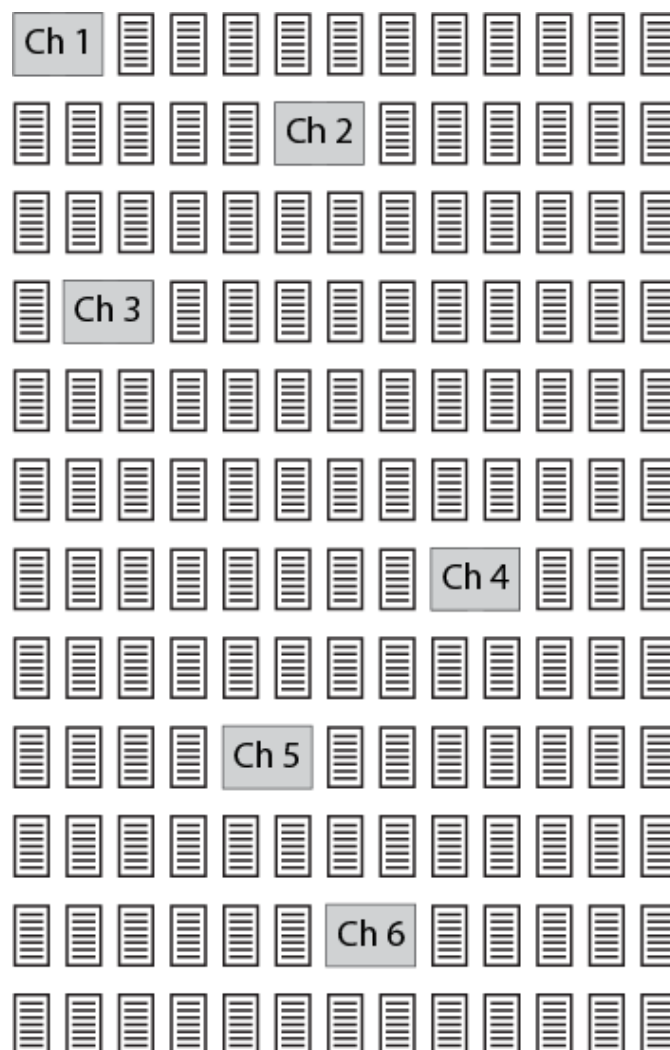
Sequential structure vs meaning structure: two ways of approaching a book

The structure of a book can be analysed in two ways. **There is a sequential structure and there is also a meaning structure.**

Because of the nature of language, books are constructed sequentially. Lines of words which go from left to right make up sentences, which together make up paragraphs. Paragraphs make up pages, which in turn make up chapters, which together comprise the book.

Words → Sentences → Paragraphs → Pages → Chapters

And that's the most obvious way to conceive of books, as a series of pages broken into chapters which should be started at the beginning and read through to the end. However that's also where many of the problems of drowning in the detail and missing the bigger picture begin.



The sequential structure of books

A more productive way of approaching a book is through its meaning structure.

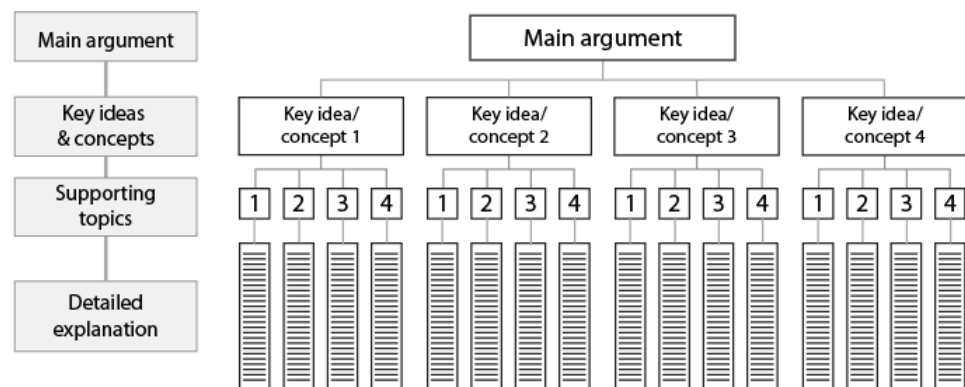
The purpose of most non-fiction books is to deliver an argument or series of arguments. Authors write books to persuade readers of the validity of certain ideas and/or to suggest that they take particular actions.

This could be, for example, to:

- explain the reasons for inequality in the world economy
- explain why human beings have had such an impact on the world
- describe who and what influenced Matisse's art
- persuade the reader to follow a particular business strategy
- persuade the reader to vote for a political party
- explain how gravity works
- make the case for a certain interpretation of historical events.

The content of a book is written in order to back up the argument. To do this, authors need to explain various key ideas and concepts, to elaborate on them by bringing in supporting topics and then to provide a detailed explanation.

This can be shown hierarchically:



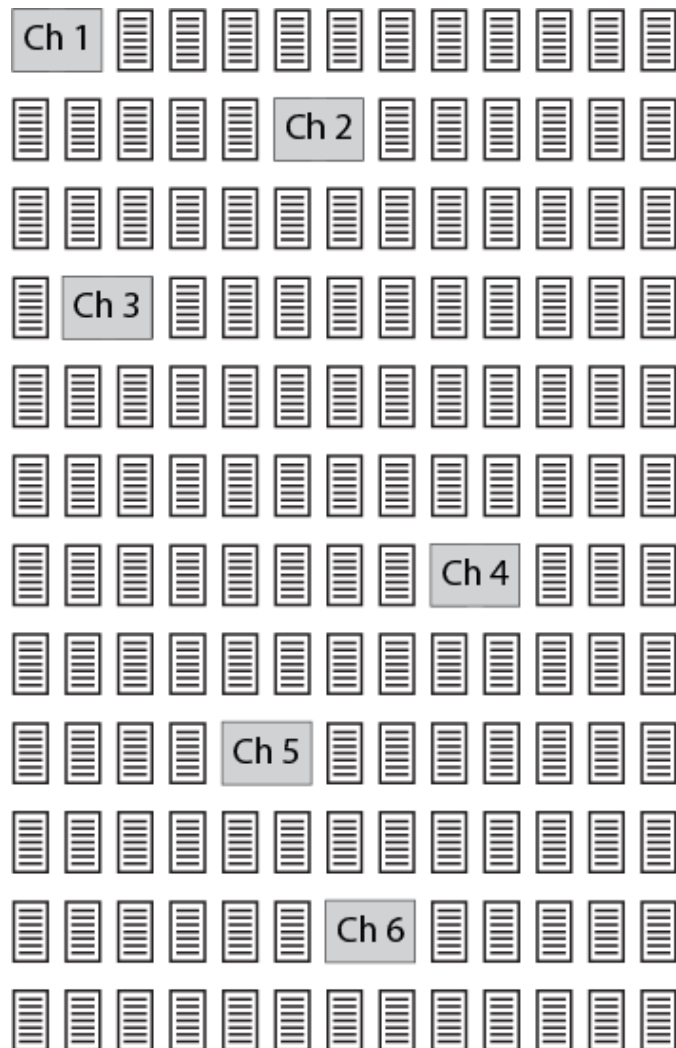
The meaning structure of non-fiction books

Of course, this is a generic diagram. Each book will have its own unique structure depending on:

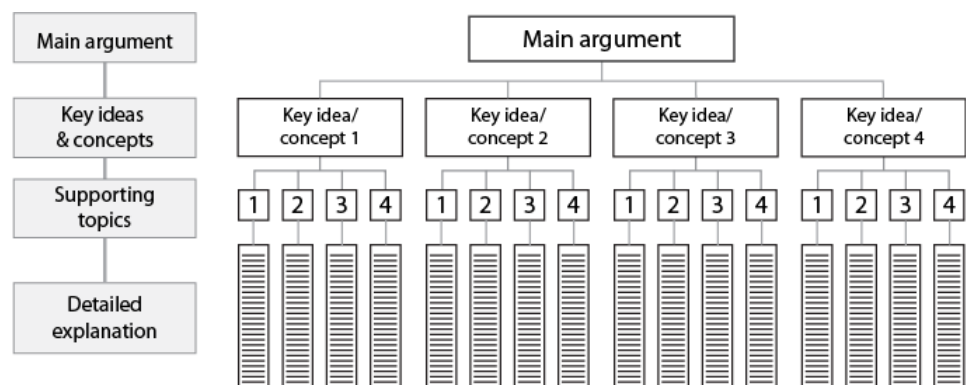
- the number of key concepts and ideas, and how they are linked to each other
- how the supporting topics are developed.

The reader's problem

The problem for readers is how they get from this:



to this:



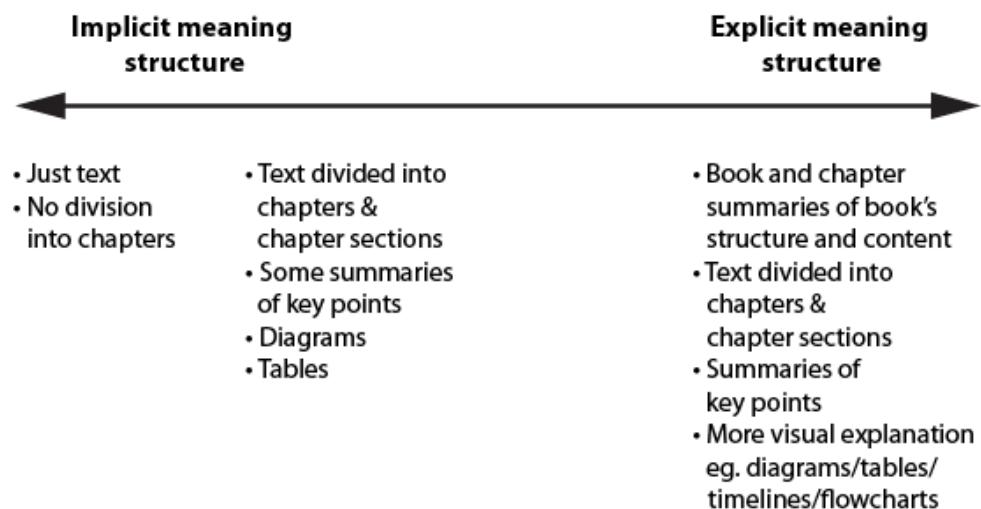
This is a critical problem. **Readers need to identify and understand the meaning structure if they are to get the most out of a book.**

Implicit vs explicit meaning structures

All books have a meaning structure, which exists along a continuum from fully implicit to fully explicit. A fully implicit structure would just be a series of paragraphs of text. No attempt would be made to explain how different sections of the book related to each other or to highlight the main argument, the key ideas and concepts, and the supporting topics.

A fully explicit structure, on the other hand, would show the key components of the book's structure and how they relate to each other at different levels of detail.

At the moment, **most non-fiction books tend towards having more of an implicit structure.** Books are divided into chapters and sections within chapters. There may be diagrams and tables, as well as summaries of key points. However there is often little attempt to show how the different ideas, concepts and topics relate together through providing summaries of the structure and content.



The implicit/explicit meaning structure continuum

The problems caused by implicit meaning structures

The problems caused by implicit meaning structures can be explained using the theories of cognitive load theory and retrieval practice.

Cognitive load theory

Cognitive load theory, initially developed by Professor John Sweller, refers to the cognitive demands placed on learners. **Due to the limitations of working memory, learners find it difficult if excessive cognitive demands are placed on them.** So the greater the cognitive load, the more learners are going to struggle with learning.

One of the critical issues in learning, therefore, is to reduce the unnecessary cognitive load imposed on learners as far as possible.

As Sweller and his colleagues write: “One aim of instructional design is to reduce extraneous cognitive load so that a greater percentage of the pool of working memory resources can be devoted to issues germane to learning rather than issues extraneous to learning.” (Note 2)

It is my contention that a book with more of an implicit rather than an explicit structure increases extraneous cognitive load.

Readers should be spending their precious cognitive energy understanding concepts, assessing the truth and usefulness of a book’s arguments, and reflecting on how the book’s ideas integrate with or challenge their existing mental models.

Instead the cognitive energy taken up by trying to make the implicit meaning structure explicit reduces the energy available for the more important tasks of understanding, assessment and reflection.

Retrieval practice

Retrieval practice can be defined as the retrieval of information from memory.

Academics Henry Roediger and Mark McDaniel in their book *Make It Stick: The Science of Successful Learning* write:

“While the brain is not a muscle that gets stronger with exercise, the neural pathways that make up a body of learning do get stronger, when the memory is retrieved and the learning is practiced. Periodic practice arrests forgetting, strengthens retrieval routes, and is essential for hanging onto the knowledge you want to gain (pp.3-4).....

“Repeated retrieval not only makes memories more durable but produces knowledge that can be retrieved more readily, in more varied settings, and applied to a wider variety of problems (p.43).”
(Note 3)

Readers who want to try retrieval practice need to be clear about the key points they are trying to remember and then have them available in a concise format so they can identify the gaps in what they have retrieved and refresh their memories about these gaps.

Non-fiction books in their present format fail on both counts.

Often it is hard work to identify what the key points are, which means also that the information is not in a suitable format for returning to repeatedly.

The alternative to this is writing notes to use for retrieval practice but this can be very time-consuming and few readers seem to do this.

Counter-examples

Not everyone struggles with reading non-fiction books. Academics, for example, need to get through numerous books and extract useful information from each of them. Many have therefore developed very effective strategies for reading.

One well-known British academic, who is a prolific author, wrote the following to me in an email: “I never read a book...just fillet them by using table of contents, index and concentrating strictly on what’s relevant to what I’m writing. That way I would ‘read’ up to twenty books a day.”

There are strategies for more effectively reading books with an implicit meaning structure. I will be detailing them in a course I am developing. See www.8020reader.com for more details.

However, in most cases, **I believe that it is more effective to give readers explicit meaning structures rather than to help them cope better with implicit ones.**

PART 2: The benefits of a new approach to non-fiction books

Part 1 looked at the problems with the current structure of most non-fiction books. **Part 2 now looks at how multi-level summaries can help to solve these problems.**

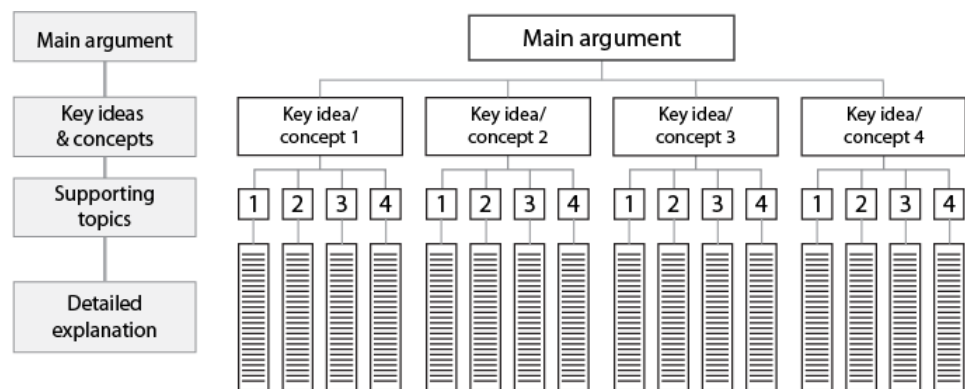
Multi-level summaries

In Part 1, I explained that:

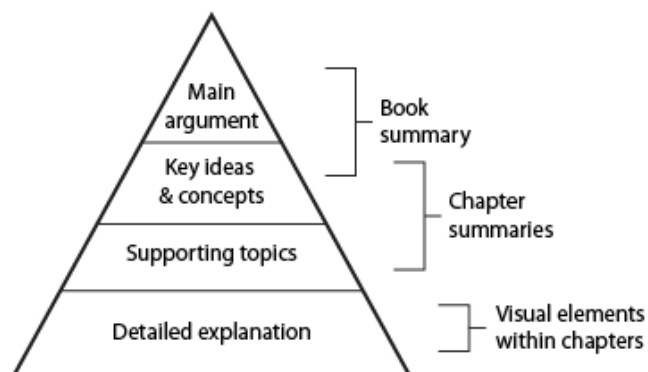
- most non-fiction books have more of an implicit meaning structure
- having an implicit meaning structures causes problems with cognitive load and retrieval practice.

The alternative to an implicit meaning structure is an explicit one and one way of providing them is through multi-level summaries.

To recap, an explicit meaning structure looks generically like this.



This structure can also be simplified into a pyramid.



Multi-level summaries show the big picture at different levels of detail in the book and how the different elements of content are connected to each other.

The most effective way to do this would be to create the following:

- i) **a whole book summary**, showing how the book is structured and giving details of the key ideas and concepts
- ii) **individual summaries for each of the chapters**, which show the structure of the chapter and provide a summary of the key ideas/concepts and the supporting topics in that chapter
- iii) **visual elements within individual chapters**. Diagrams, tables, flowcharts, timelines and other visual elements are a very effective way of summarising complex ideas and most non-fiction books could use more of them.

There are potential variations to this:

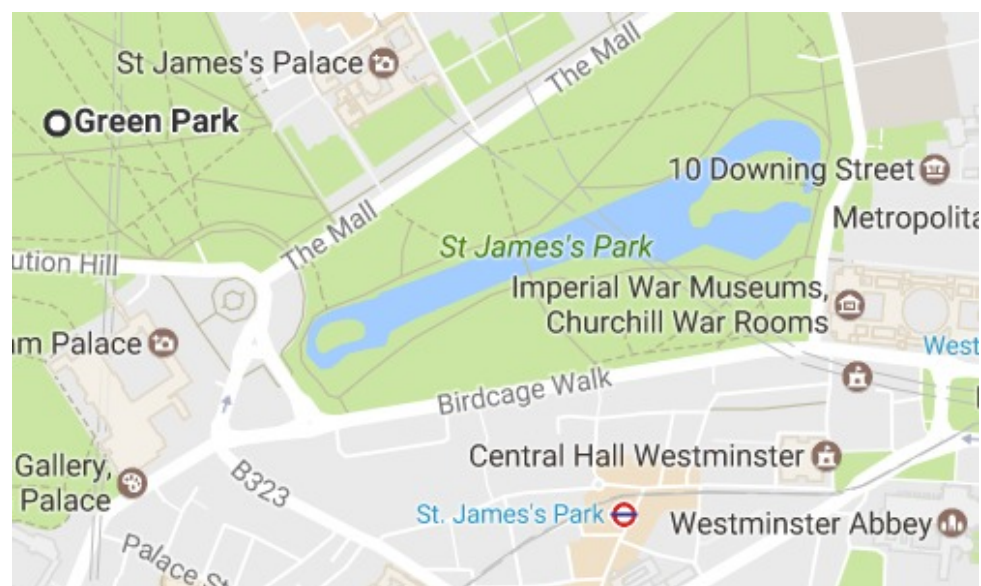
- i) If the chapters are divided into parts or the book is made up of very short chapters, it might be better to summarise linked chapters together.
- ii) If a chapter has a great deal of content and is particularly dense, it might be better to add summaries within chapter sections as well.

It is important that each summary is contained on a single book page (or across a spread of two adjacent pages, if absolutely necessary) so that the relationship between the different content elements can be seen in a glance.

Using Google Maps as an analogy

A good analogy for multi-level summaries is **Google Maps** in that it also provides the opportunity to view information at different levels of detail. (Note 4)

Let's use Green Park in London as an example. One can choose a detailed view to see its position in relation to other landmarks in central London such as Westminster Abbey or St James's Palace.



Zooming out to a wider view, Green Park can then be seen in relation to areas of London like Kensington, the City of London and Canary Wharf.



Zooming out even more, Green Park can be seen in the context of southern England and its location can be viewed relative to places like Bristol, Brighton and Ipswich.



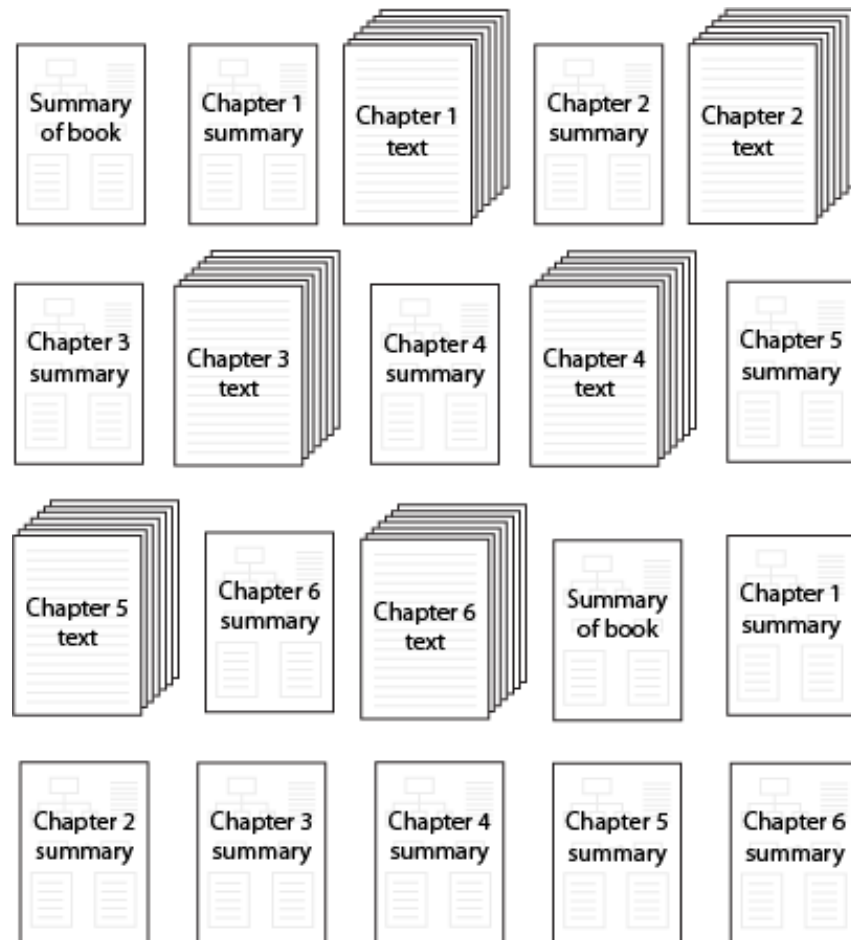
While Google Maps has eighteen levels of detail from its most detailed view all the way out to a map of the world as a whole, most books will have just three or four levels of detail.

Multi-level summaries give readers the ability to zoom in and zoom out in a similar way to Google Maps. Readers can zoom in to focus on the detailed explanation in the text. They can then zoom out to the chapter summary to see how that detail fits into the context of the chapter. They can then, if they want, zoom out even further to the summary of the book to review the book's key ideas.

The location of multi-level summaries in a book

Multi-level summaries would be located as follows:

- i) there would be a summary of the whole book right at the beginning
- ii) there would be a chapter summary at the beginning of each chapter.
- iii) the book summary and all the chapter summaries would be repeated at the back of the book so that readers can consult them easily in sequence without having to page through the book looking for individual summaries.



Location of multi-level summaries in a book

Visual aspects of multi-level summaries

Summaries of books solely using text often look uninteresting and unappealing. So I think it is important that multi-level summaries use what Robert Horn calls visual language ie. a combination of words, images and shapes. (Note 5)

These visual elements can include:

- diagrams to show the structure of the book and how different ideas connect to each other
- boxes to separate text and show a hierarchy of importance
- the use of colour
- the use of diagrams, icons, tables, timelines and flowcharts to describe ideas
- text itself being given a visual aspect – eg. capitalisation, text drawn as illustration etc.

There is a continuum between more text and more visual aspects. Different authors and different designers will plump for a different balance.

Sketchnoting, a field developed by designer Mike Rohde, has a great deal to offer multi-level summaries. Rohde defines sketchnotes as “rich visual notes created from a mix of handwriting, drawings, hand-drawn typography, shapes, and visual elements like arrows, boxes and lines”. (Note 6)

There is a great deal of innovation in this field at the moment. The sketchnoters and visual thinkers whose work I particularly respect include [Mike Rohde](#) himself, [Dave Gray](#), [Dan Roam](#), [Oliver Caviglioli](#), [Rob Dimeo](#) and [Makayla Lewis](#).

Why multi-level summaries work

This is how multi-level summaries can help with the previously-identified problems about reading non-fiction books.

1. Getting started with a book

1.1 Finding it hard to get started

Problem: being confronted with hundreds of pages of text that will take many hours to get through can make it hard to get started.

Solution: the 20 minutes or so needed to read the book and chapter summaries provides an easy way in to starting a book.

2. Giving up on a book

2.1 Losing interest

Problem: many books are not finished because readers lose interest. A common experience is enthusiastically starting a book and then running out of momentum in the middle of Chapter 1 or 2.

Solution: the summaries allow readers to be much clearer about whether the book is going to be worth reading in full and to quickly identify which chapters of the book they are going to find most interesting. In addition, even if they only spend 20 minutes on a book, they will have got the big picture of the book and read the main arguments – in the same time that a reader not having access to multi-level summaries would take to get bogged down in the middle of Chapter 1 and give up.

3. Problems when reading a book

3.1 Drowning in detail

Problem: when books don't have a clear structure or summaries of the main points, it's easy for readers to get confused as they drown in too much detail and lose sight of what the key ideas are.

Solution: having multi-level summaries in addition to the text gives readers the flexibility to choose between detail and context. When they want to focus on detail, they can zoom in to find it in the text. When they're getting confused, they can zoom out using the multi-level summaries to understand where that detail fits into the big picture.

3.2 Returning to a book after a break

Problem: it's easy to forget the thread of a book's argument after putting it down for a few days or a few weeks. Readers then either have to carry on reading superficially without remembering the outline of the book's argument or spend time struggling to identify the key ideas from the pages they have already read.

Solution: multi-level summaries allow readers to refresh their memories about what they have previously read quickly. That means that they can easily pick up the thread of the book's argument and therefore carry on reading productively.

4. Problems after finishing a book

4.1 Forgetting a book's ideas

Problem: many readers complain about how little they remember of a book's ideas even after they have spent hours reading it. That's to be expected. Cognitive psychology teaches how easily facts and ideas are forgotten.

Solution: As previously explained, the concept of retrieval practice is increasingly recognised as a key part of helping both children and adults to remember more. When readers come across ideas they want to embed in their memory, having multi-level summaries allow readers to engage in retrieval practice easily.

In addition, having clear explanations of how the detail fits into the big picture can make the book's ideas more memorable.

	Problems that non-fiction readers currently have	Benefits of using multi-level summaries
1. Getting started with a book		
1.1 Finding it hard to get started	Being confronted with a long book and knowing it will take many hours to read can be daunting.	Spending 20 minutes or so reading the book and chapter summaries gives readers an easy way into a book.
2. Giving up on a book		
2.1 Losing interest	It's very easy to run out of enthusiasm for a book in the midst of Chapter 1 or 2 when the initial burst of interest in reading the book has subsided.	Looking at the summaries means that readers will be much clearer about whether the book is worth reading in full and about which parts they are going to find most interesting.
3. Problems when reading a book		
3.1 Drowning in detail	When a book doesn't have a clear structure or summaries of the main points, readers can drown in too much detail and lose sight of what the key ideas are.	Multi-level summaries alongside the text allow readers to zoom in to the detail and then zoom out for the big picture so they can focus on whatever level of detail they need to.
3.2 Returning to a book after a break	It's easy to forget the thread of a book's argument when returning to it after putting it down for a while.	Multi-level summaries allow readers to refresh their memories about what they have previously read quickly and easily.
4. Problems after finishing a book		
4.1 Forgetting a book's ideas	Facts and ideas are easily forgotten and many readers complain of how little they remember of a book.	Being able to switch between the detail and the big picture means that ideas become more memorable. In addition, the summaries aid retrieval practice.
4.2 Working out what action to take	If suggested strategies and behaviours aren't summarised adequately, it's easy for a reader to move on to the next book without taking any action.	Having good summaries of suggested strategies and behaviours makes it easier for a reader to start taking action.
4.3 Revisiting a book	A detailed re-read is often needed if readers want to remind themselves of the ideas in a previously-read book.	Having multi-level summaries means that readers can get an overview of the whole book in 15-20 minutes.

4.2 Struggling to work out what action to take

Problem: many books suggest new behaviours and strategies for the reader. If these new strategies and behaviours aren't summarised adequately, it's easy for a reader to move on to the next book without taking any action.

Solution: having adequate summaries allows readers to easily revisit the recommended strategies and behaviours once they have finished a book and then decide which, if any, they are going to put into practice.

4.3 Returning to a book

Problem: when readers want to remind themselves of the ideas in a book they have read in the past, a detailed re-read is often needed in order to get to grips with the book again.

Solution: having multi-level summaries means that readers can get an overview of the whole book in 15-20 minutes.

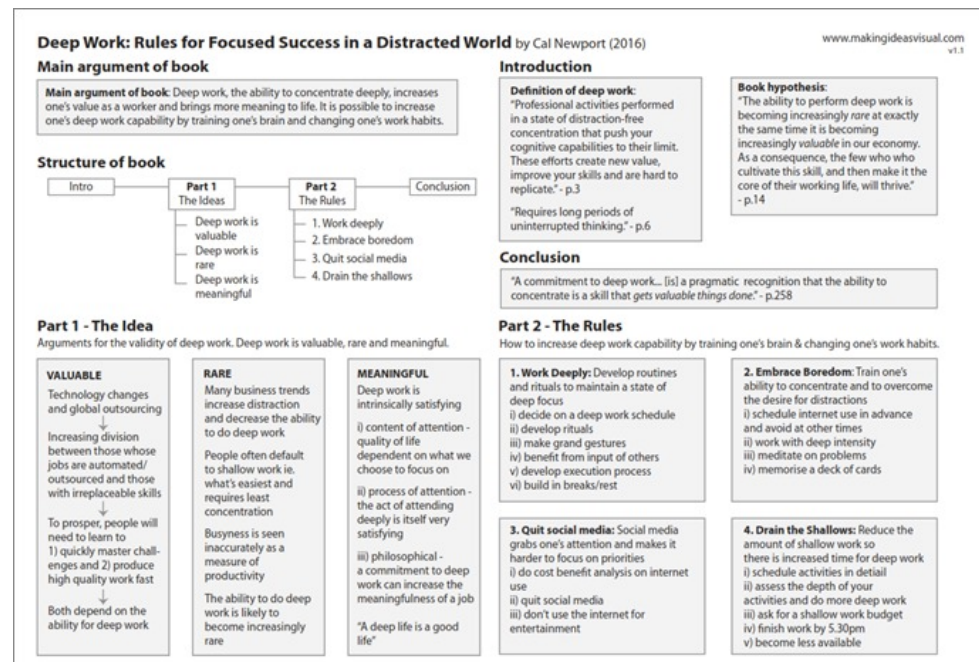
Examples of multi-level summaries

I have provided four examples of summaries. The three by myself comprise a book summary and an individual chapter summary from Cal Newport's book *Deep Work*, and a summary of the Conclusion chapter of Tim Shipman's book about the EU referendum campaign *All Out War*. I have also included a book summary by Sacha Chua of Josh Kaufman's book *The First 20 Hours*.

I make no claim for my summaries being definitive ones. The authors would no doubt want to summarise their ideas in different ways. In addition, designers with much better design skills than mine will be able to produce nicer looking summaries.

However they provide an idea of what summaries can look like.

(i) a book summary created by myself of *Deep Work: Rules for Focused Success in a Distracted World* by Cal Newport (Piatkus, 2016).



The full-size graphic can be found in the appendix at the back of this document.

This summary allows readers to find out in a short time some of the key information about the book:

- it explains the main argument of the book, provides a definition of the main concept and explains the book's main hypothesis
- it provides a simple diagram showing the structure of the book
- it provides short descriptions of the main arguments for the validity of deep work
- it outlines all the different strategies for increasing deep work capability, grouped into the four categories.

(ii) an individual chapter summary created by myself of *Deep Work: Rules for Focused Success in a Distracted World* by Cal Newport (Piatkus, 2016).

This chapter summary goes into more detail about the six Work Deeply strategies. It allows readers to see at a glance a summary of each of the six strategies.

Deep Work: Rules for Focused Success in a Distracted World by Cal Newport (Piatkus, 2016)

Summary of Rule 1: Work Deeply chapter

Goal: To develop "routines and rituals" to maintain a state of deep concentration so that deep work "becomes a regular and significant part of your daily schedule". There are six strategies outlined to achieve this.

Strategy 1 - Decide on your type of depth philosophy

There are different ways of working deeply, dependent on the other demands you have on your time.

- 1. Monastic.** This involves doing deep work almost all the time. It requires working on one's own or in a small group. It is also important not to have too many demands from clients or colleagues.
- 2. Bimodal.** This involves having clearly defined periods of deep work interspersed with other work. The minimum period is a whole day. The periods of deep work can vary - eg. a 4-day weekend or a whole month - or a combination of different time scales.
- 3. Rhythmic.** This involves having daily sessions of deep work scheduled for a set time each day. It is suitable for people who can't devote full days to deep work and is the most common approach.
- 4. Journalistic.** This involves deep work being scheduled whenever there is spare time available. It can be planned in advance or done when the opportunity arises. This schedule requires the most discipline.

Strategy 2 - Ritualise

It's important to develop rituals that facilitate deep work by reducing the need for decisions and making productive actions automatic.

Here are some questions that need to be answered:

- your location and how long?
- your rules for working? eg. will you stop using the internet at work?
- what resources do you need eg. Coffee, room organisation, pens.

Finding the right rituals will need experimentation.

Strategy 3 - Make grand gestures

A big change to your normal place of work indicates serious commitment to your brain. JK Rowling has written in a hotel suite and Bill Gates has gone away for a week of deep thinking in a secluded cabin.

Strategy 4 - Don't work alone

The theory of serendipitous creativity suggests that chance encounters with people can stimulate new ideas and collaborations. In addition, working with a colleague can help deep work.

Strategy 5 - Execute like a business

It is important to (i) have ambitious goals, (ii) decide on measures that will help you reach them, (iii) record these measures on a public scorecard and (iv) have a weekly review of progress and plan for the week ahead.

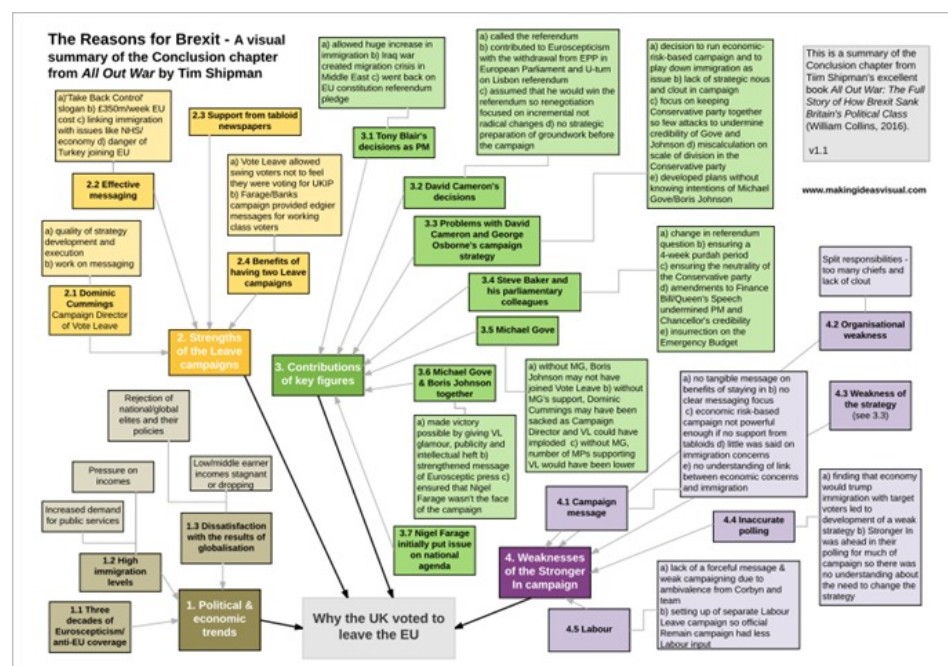
Strategy 6 - Be lazy

Having downtime is critical because it stimulates insights and recharges batteries. It's important to have evenings free of work concerns. Critical to this is having an evening shutdown ritual which involves recording incomplete issues and planning for the next day.

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The full-size graphic can be found in the appendix at the back of this document.

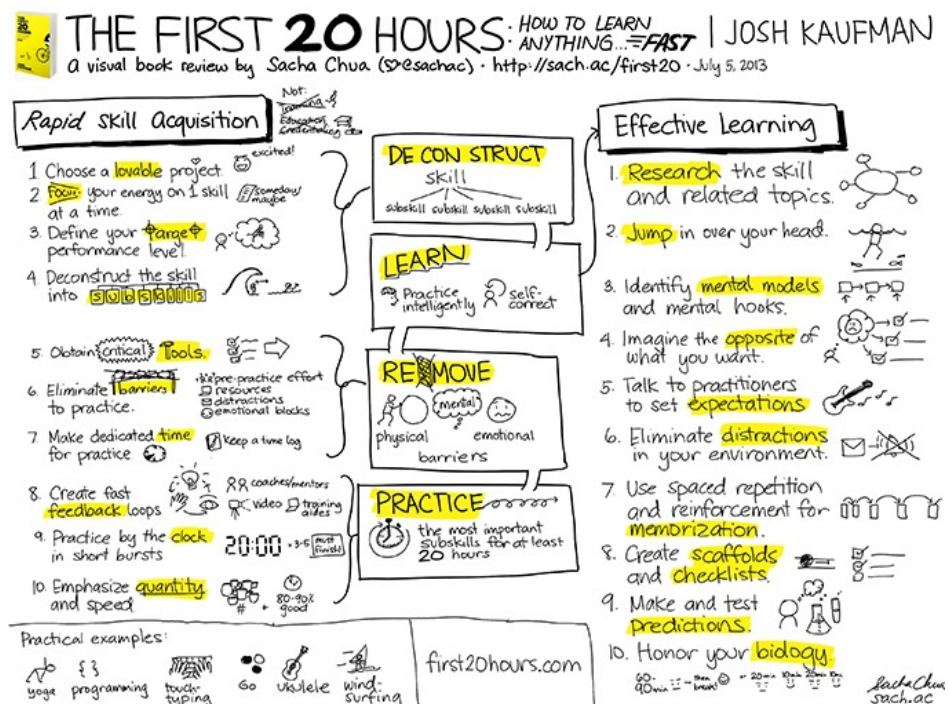
(iii) a summary of the Conclusion chapter from Tim Shipman's book *All Out War: The Full Story of How Brexit Sank Britain's Political Class* (William Collins, 2016).



For me, this particularly illustrates the power of visual summaries. Tim Shipman's Conclusion is clearly written. However, in it, he provides a large number of reasons for Brexit, divided into a several categories. It is very hard to keep them all in mind. The visual summary allows the reader to easily see all the reasons grouped together on a single page and then makes it easier for the reader to start reflecting on them.

The full-size graphic can be found in the appendix at the back of this document.

(iv) a book summary by Sacha Chua of Josh Kaufman's book *The First 20 Hours: How to Learn Anything Fast*. This is very much on the visual side of the text-visual continuum.



The full-size graphic can be found at this link - www.sachachua.com/blog/2013/07/visual-book-review-the-first-20-hours-how-to-learn-anything-fast-josh-kaufman.

Objections to multi-level summaries

Here are some of the objections to multi-level book summaries that I can envisage.

1) Dumbing down

Some people may consider multi-level book summaries a form of dumbing down. They may say that books have done a good job for centuries and that creating summaries is pandering to reduced attention spans and the laziness of readers.

I would reply that the current structure of non-fiction books reduces the intellectual engagement that many readers have with the books they read. Having summaries will reduce needless cognitive load and therefore increase their intellectual engagement.

2) Reducing complexity excessively

Some authors may be concerned that multi-level summaries won't be able to communicate the complexity of their ideas and that therefore the subtlety of their arguments will be ignored by readers who focus just on the summaries. This is a fair point. An answer to this is to make sure that summaries refer to the additional complexities so that readers can follow these up.

3) Book detail being ignored

Authors may also be concerned that many readers will just look at the summaries and ignore their hard work on the text of the book. This may be the case for some readers but they would probably not have finished the book in the first place. The key will be to create interesting enough summaries that will make readers keen to go on to read the detailed explanation in the book.

4) Extra work for authors

Of course creating a multi-level summary is yet another task for an author to complete, even if they hand over the design work to someone else. However, hopefully the benefits of having readers who are more engaged with the book's ideas will outweigh the burden of the extra work.

5) Making arguments clearer may expose any holes in an author's argument

The current structure of books makes it easier for authors to hide gaps or weaknesses in their reasoning. Needing to be clearer about the steps in their argument won't be to the taste of every author.

6) Unsuitability of some books

One category of non-fiction books not suitable for multi-level summaries are those that are mainly stories where the point is to follow the narrative and where having an overview of the book from the beginning would spoil the reading experience.

Benefits for authors

I do think multi-level summaries will have benefits for authors in addition to the potential drawbacks mentioned above. Summaries will make it easier for readers to engage with an author's ideas and, where applicable, to put the ideas into action.

How may multi-level summaries be developed in practice?

There are four ways in which multi-level summaries may be developed:

- (i) **authors.** I hope that more authors will include multi-level summaries in their own books.
- (ii) **publishers.** I hope that innovative publishers will begin to see the value of multi-level summaries and encourage authors to include them in their books.
- (iii) **readers.** More and more readers are putting sketchnotes or visual summaries of books they have read online. In most cases it is just a book summary so it would be good to have more chapter summaries too.
- (iv) **book summary companies.** Book summary companies tend to summarise the sequential structure of a book and not the different levels of detail. I think there is a big opportunity for innovative book summary companies to start producing multi-level summaries.

Using multi-level summaries in other areas

Multi-level summaries will be especially useful in two other areas – education and training. I will write about these areas in future blog posts.

Conclusion

I hope that you have been persuaded that multi-level summaries have an important role to play in making non-fiction books easier to understand, remember and act on.

I would be very glad to receive your feedback about the ideas expressed here. Please send me an email through my [Contact page](#).

If you would like to be kept up to date with how the concept is being developed, please [sign up to my newsletter](#).

Notes

1. An important inspiration for the multi-level summaries concept has been Frederick Reif's work on the concept of hierarchical knowledge organisation (or hierarchically organised knowledge), which is outlined in Chapter 9 of his book *Applying Cognitive Science to Education: Thinking and Learning in Scientific and Other Complex Domains* (MIT Press, 2010).

I have also found the holographic/linear concept outlined in Ian Harris and Oliver Caviglioli's book *Think It – Map It!* (Network Educational Press, 2003 – pp.28-33) very helpful in developing these ideas – as has been Oliver Caviglioli's work in general on educational ideas and how they can be explained more effectively through visuals.

I have found Richard Koch's work on the 80/20 Principle very valuable (*The 80/20 Principle: The Secret of Achieving More with Less*, Nicholas Brealey Publishing, 2003). His suggestion that 80% of the value of a book can come from 20% (or less) of the text started me thinking about the huge potential of summaries.

2. From *Cognitive Load Theory* by John Sweller, Paul Ayres and Slava Kalyuga (Springer, 2011). Cited in [Oliver Caviglioli's sketchnote](#) of Chapter 5 of the book.

3. *Make It Stick: The Science of Successful Learning* by Peter C. Brown, Henry L. Roediger III and Mark A. McDaniel (Belknap Press, 2014).

4. Frederick Reif identifies geographical maps as an example of a hierarchical knowledge organisation in his book *Applying Cognitive Science to Education*, pp142-143 and 149-150 (see Note 1).

5. Robert E. Horn, *Visual Language: Global Communication for the 21st Century* (MacroVU, 1998).

6. *The Sketchnote Handbook: The Illustrated Guide to Visual Note-taking* by Mike Rohde, Peachpit Press, 2013.

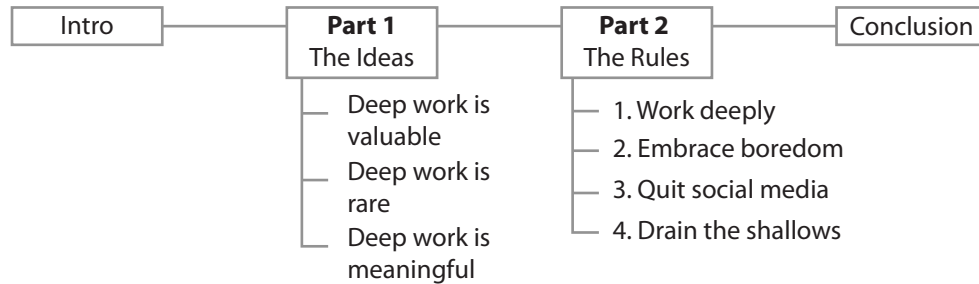
Deep Work: Rules for Focused Success in a Distracted World by Cal Newport (2016)

Appendix 1.1 - Multi-level Summaries
www.makingideasvisual.com

Main argument of book

Main argument of book: Deep work, the ability to concentrate deeply, increases one's value as a worker and brings more meaning to life. It is possible to increase one's deep work capability by training one's brain and changing one's work habits.

Structure of book



Part 1 - The Idea

Arguments for the validity of deep work. Deep work is valuable, rare and meaningful.

VALUABLE

Technology changes and global outsourcing

↓
Increasing division between those whose jobs are automated/outsourced and those with irreplaceable skills

↓
To prosper, people will need to learn to
1) quickly master challenges and 2) produce high quality work fast

↓
Both depend on the ability for deep work

RARE

Many business trends increase distraction and decrease the ability to do deep work

People often default to shallow work ie. what's easiest and requires least concentration

Busyness is seen inaccurately as a measure of productivity

The ability to do deep work is likely to become increasingly rare

MEANINGFUL

Deep work is intrinsically satisfying

i) content of attention - quality of life dependent on what we choose to focus on

ii) process of attention - the act of attending deeply is itself very satisfying

iii) philosophical - a commitment to deep work can increase the meaningfulness of a job

"A deep life is a good life"

Introduction

Definition of deep work:

"Professional activities performed in a state of distraction-free concentration that push your cognitive capabilities to their limit. These efforts create new value, improve your skills and are hard to replicate." - p.3

"Requires long periods of uninterrupted thinking." - p.6

Conclusion

"A commitment to deep work... [is] a pragmatic recognition that the ability to concentrate is a skill that *gets valuable things done*." - p.258

Book hypothesis:

"The ability to perform deep work is becoming increasingly *rare* at exactly the same time it is becoming increasingly *valuable* in our economy. As a consequence, the few who who cultivate this skill, and then make it the core of their working life, will thrive." - p.14

Part 2 - The Rules

How to increase deep work capability by training one's brain & changing one's work habits.

1. Work Deeply: Develop routines and rituals to maintain a state of deep focus

- i) decide on a deep work schedule
- ii) develop rituals
- iii) make grand gestures
- iv) benefit from input of others
- v) develop execution process
- vi) build in breaks/rest

2. Embrace Boredom: Train one's ability to concentrate and to overcome the desire for distractions

- i) schedule internet use in advance and avoid at other times
- ii) work with deep intensity
- iii) meditate on problems
- iv) memorise a deck of cards

3. Quit social media: Social media grabs one's attention and makes it harder to focus on priorities

- i) do cost benefit analysis on internet use
- ii) quit social media
- iii) don't use the internet for entertainment

4. Drain the Shallows: Reduce the amount of shallow work so there is increased time for deep work

- i) schedule activities in detail
- ii) assess the depth of your activities and do more deep work
- iii) ask for a shallow work budget
- iv) finish work by 5.30pm
- v) become less available

Summary of Rule 1: Work Deeply chapter

Goal: To develop “routines and rituals” to maintain a state of deep concentration so that deep work “becomes a regular and significant part of your daily schedule”. There are six strategies outlined to achieve this.

Strategy 1 - Decide on your type of depth philosophy



There are different ways of working deeply, dependent on the other demands you have on your time.

- 1. Monastic.** This involves doing deep work almost all the time. It requires working on one's own or in a small group. It is also important not to have too many demands from clients or colleagues.
- 2. Bimodal.** This involves having clearly defined periods of deep work interspersed with other work. The minimum period is a whole day. The periods of deep work can vary - eg. a 4-day weekend or a whole month - or a combination of different time scales.
- 3. Rhythmic.** This involves having daily sessions of deep work scheduled for a set time each day. It is suitable for people who can't devote full days to deep work and is the most common approach.
- 4. Journalistic.** This involves deep work being scheduled whenever there is spare time available. It can be planned in advance or done when the opportunity arises. This schedule requires the most discipline.

Strategy 2 - Ritualise



It's important to develop rituals that facilitate deep work by reducing the need for decisions and making productive actions automatic.

Here are some questions that need to be answered:

- your location and how long?
- your rules for working? eg. will you stop using the internet at work?
- what resources do you need eg. Coffee, room organisation, pens.

Finding the right rituals will need experimentation.

Strategy 3 - Make grand gestures



A big change to your normal place of work indicates serious commitment to your brain. JK Rowling has written in a hotel suite and Bill Gates has gone away for a week of deep thinking in a secluded cabin.

Strategy 4 - Don't work alone



The theory of serendipitous creativity suggests that chance encounters with people can stimulate new ideas and collaborations. In addition, working with a colleague can help deep work.

Strategy 5 - Execute like a business



It is important to (i) have ambitious goals, (ii) decide on measures that will help you reach them, (iii) record these measures on a public scorecard and (iv) have a weekly review of progress and plan for the week ahead.

Strategy 6 - Be lazy



next day.

Having downtime is critical because it stimulates insights and recharges batteries. It's important to have evenings free of work concerns. Critical to this is having an evening shutdown ritual which involves recording incomplete issues and planning for the

The Reasons for Brexit - A visual summary of the Conclusion chapter from *All Out War* by Tim Shipman

Appendix 1.3

