

2026-09-16

Basics of Personal Information Management

(Issues with) Finding the Right Tool(s)

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Scope of this talk

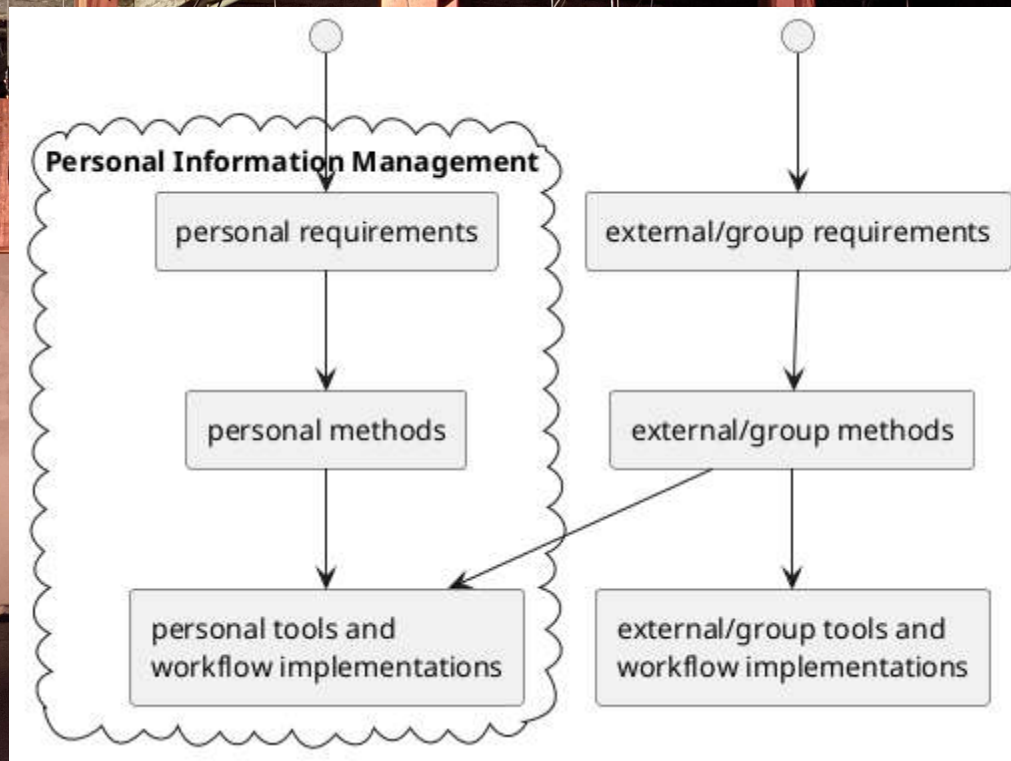
Deciding on the right methods and tools require some knowledge related to **Personal Information Management (PIM)**

This talk covers a few **basics**

Goal: enabling you to make the best possible choice in your particular situation



(Personal) Information Management



Different Mental/Cognitive Models

Me vs. other persons

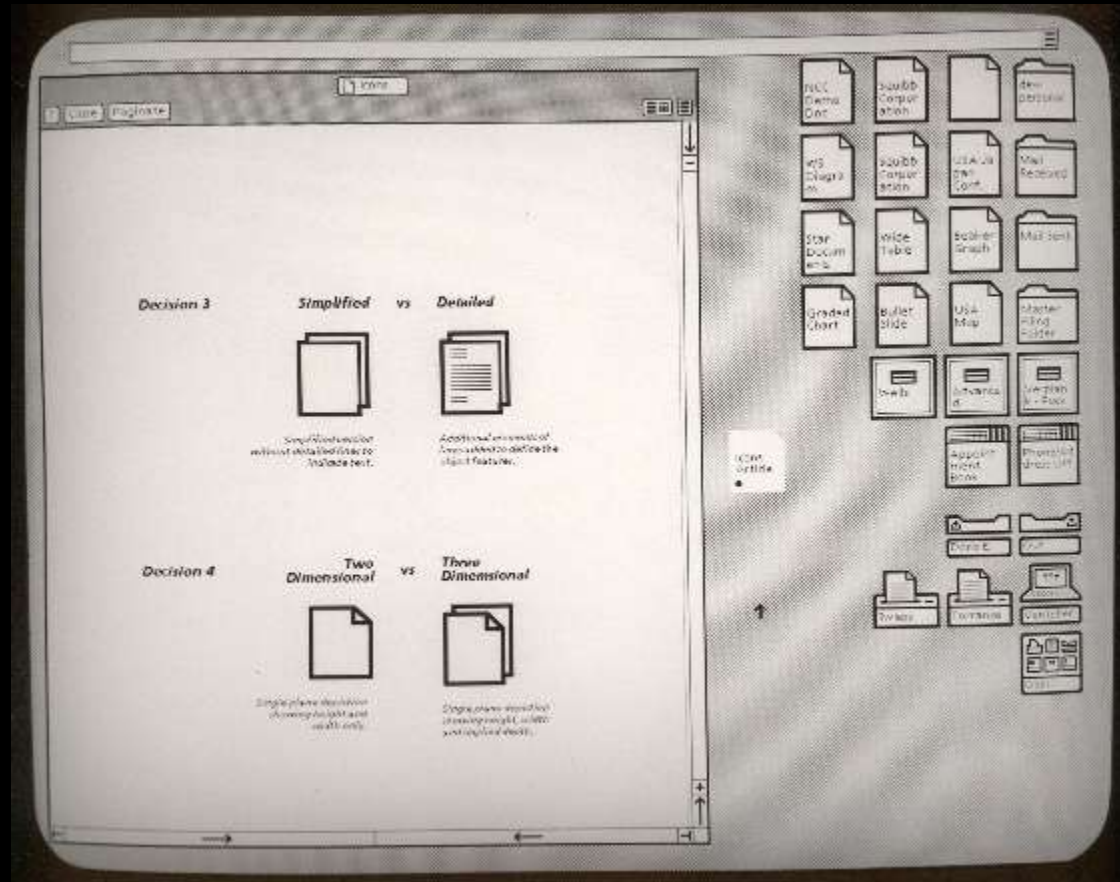
my old brain vs. my future brain

Desktop Metaphor (as a hindrance)

Developed in 1970s

Awesome for non-tech-people

Transfers world-knowledge to the virtual world and also inherits restrictions from the physical world



Naming Things

Document titles

Headings

Folder names

File names

Button labels

Menus

...



Vocabulary Problem (Furnas 1987)

Experiment

Vocabulary Problem (Furnas 1987)

**Different people relate
different words to the
same concept.**

**Different people do see
different concepts for
same things.**

Information Storage and Retrieval

We only store information because we want to **maximize retrieval success** when we need that information in future.

When there is no need for retrieval, there is no need for storage.

Storing Information

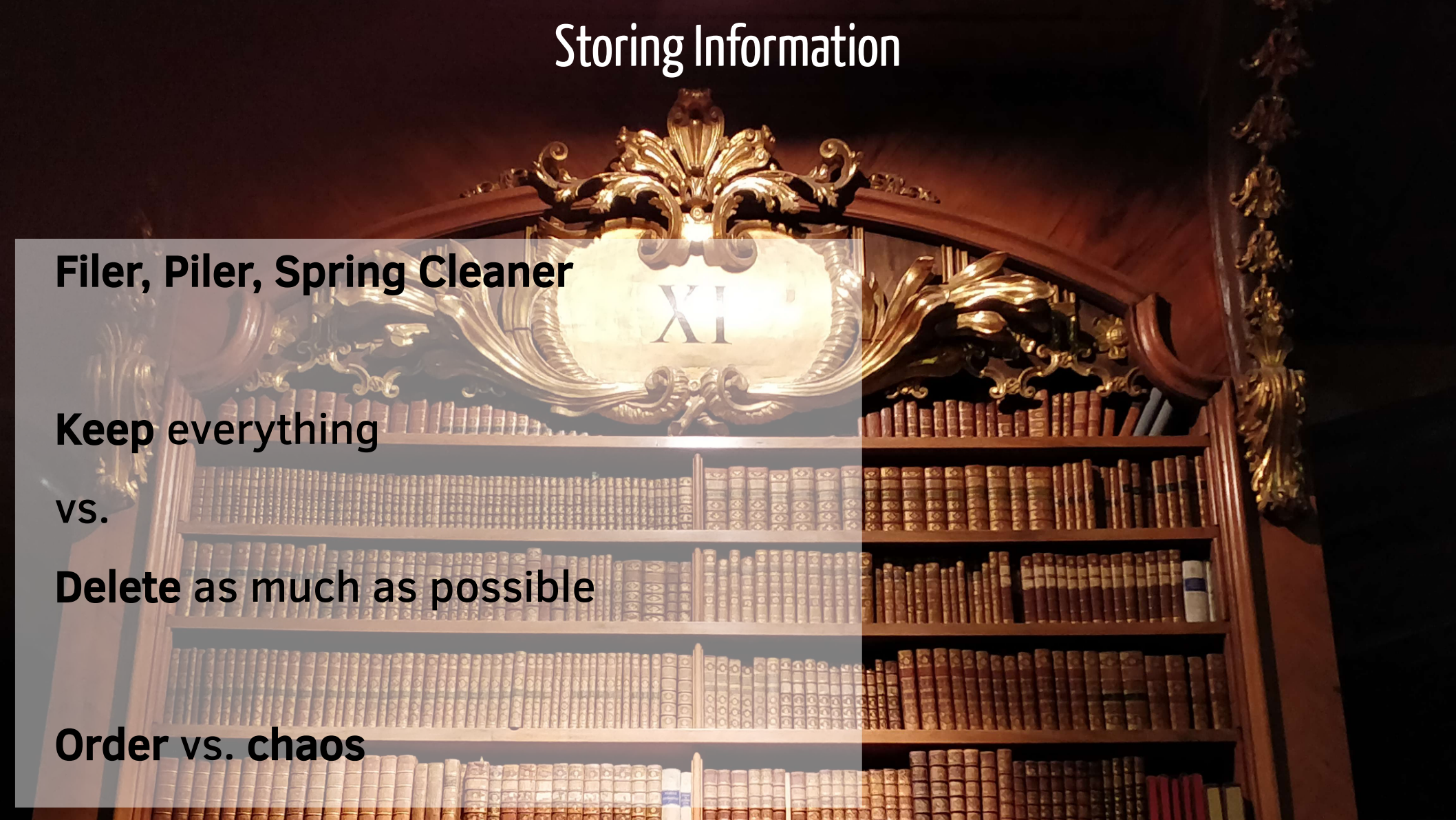
Filer, Piler, Spring Cleaner

Keep everything

vs.

Delete as much as possible

Order vs. chaos



Here:

"Directory" = "Folder"

"File" = "Document"

"Modern" file systems:

One file is stored at one single location in the file system.

(... if you deduplicate)

Again: an needless limitation in the virtual world.

Modern Times



Issue: You can't map **reality** to a **strict hierarchy**

Examples where this was tried but it resulted in a problematic concept:

Dewey Decimal Classification (DDC)

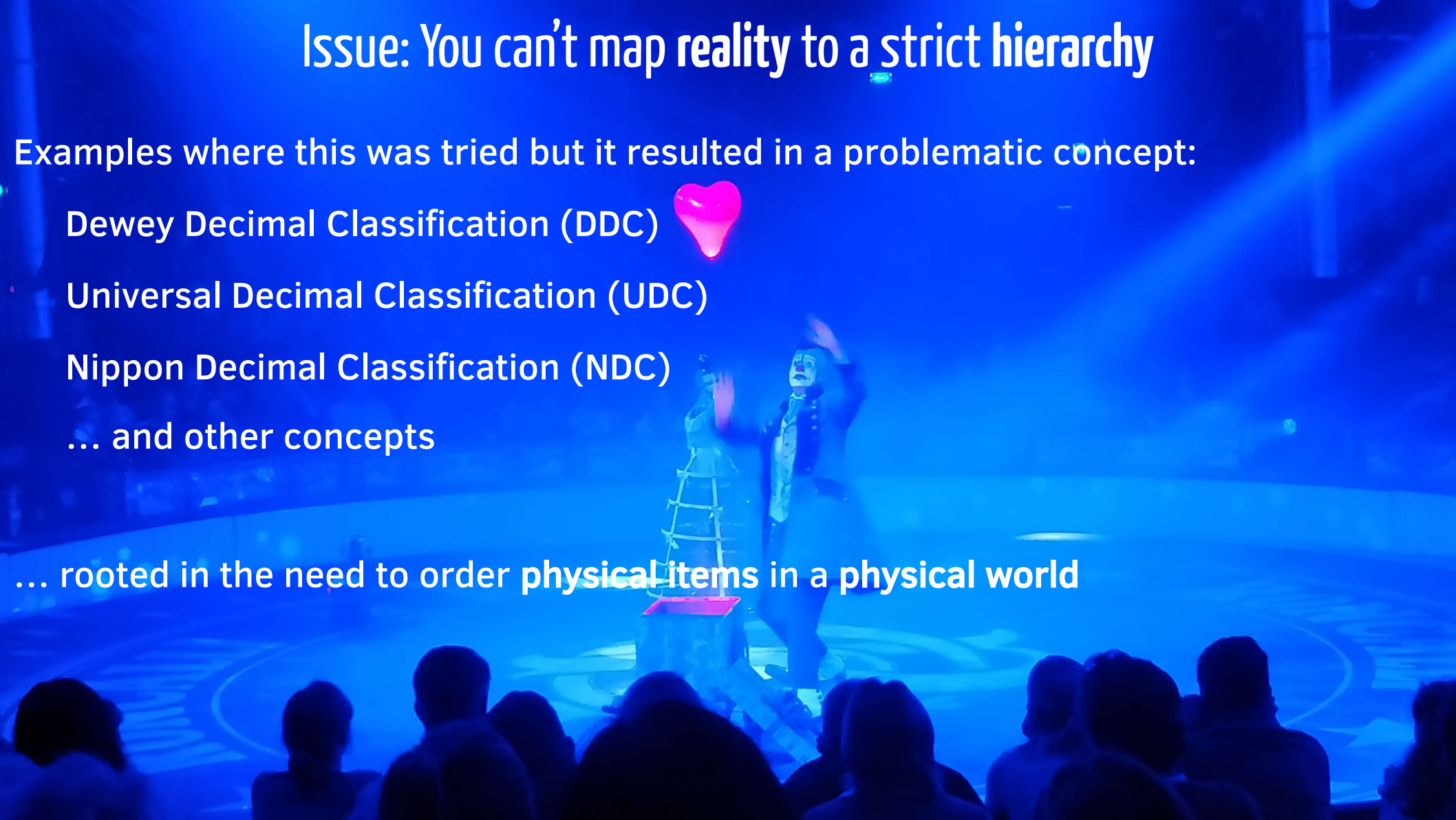


Universal Decimal Classification (UDC)

Nippon Decimal Classification (NDC)

... and other concepts

... rooted in the need to order **physical items** in a **physical world**

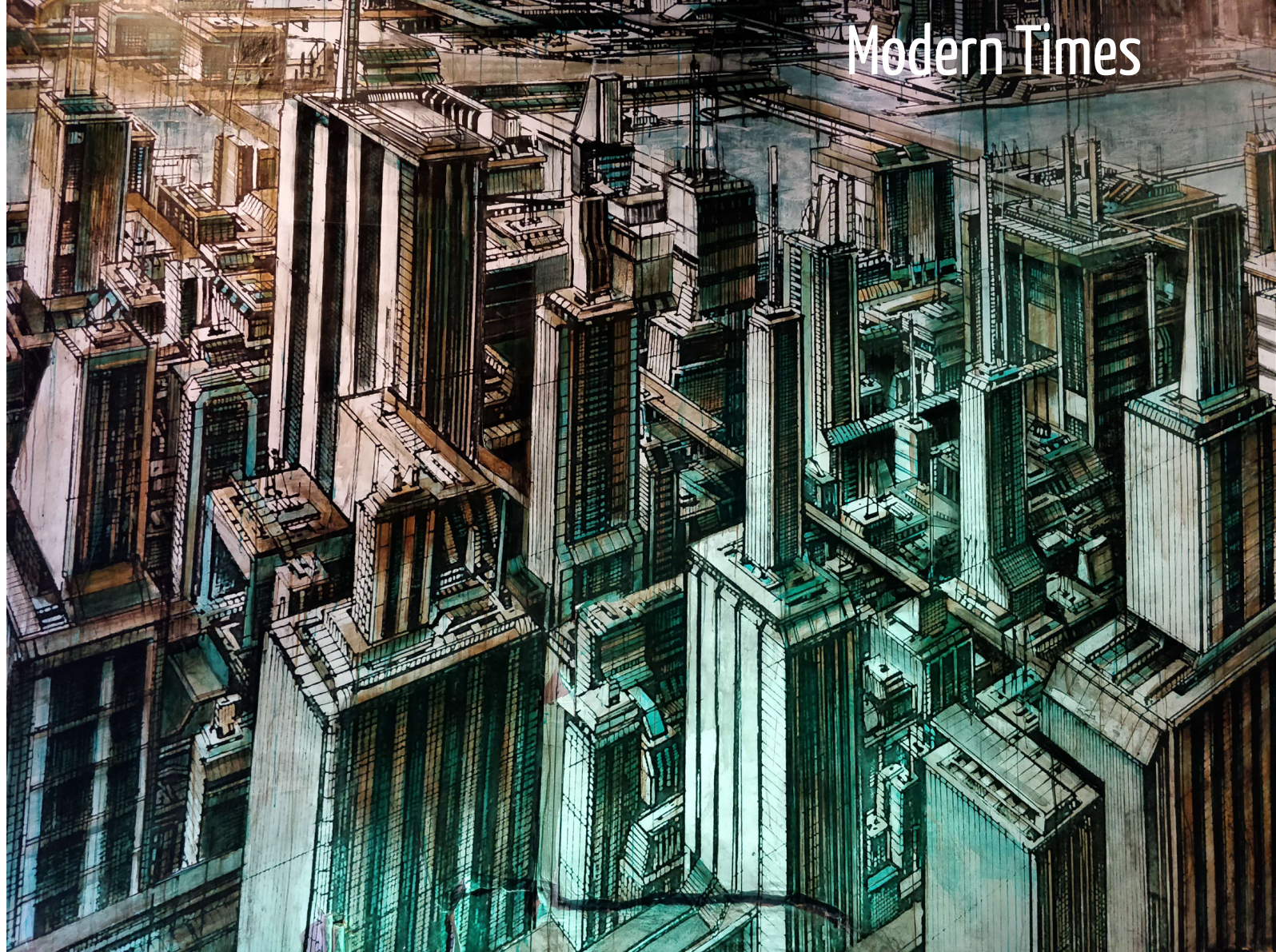


Allegory

Buying a digital camera
in a **physical store** (brick
and mortar)

vs.

Buying a digital camera
in an **online store**



Keep it as **minimal** as possible.

If you *really* need hierarchies

I once was world champion in creating useless hierarchies myself!

Keep folder names as **generic** as possible except "last level"

Ignore **default folders** like "My documents", "My Pictures", "My Videos", ...

Avoid **numbers** in file names:

"00 important stuff"

leads to a number of subtle issues,
mostly in multi-person environments

Das Anbringen
von Schildern
ist bei Strafe
untersagt!

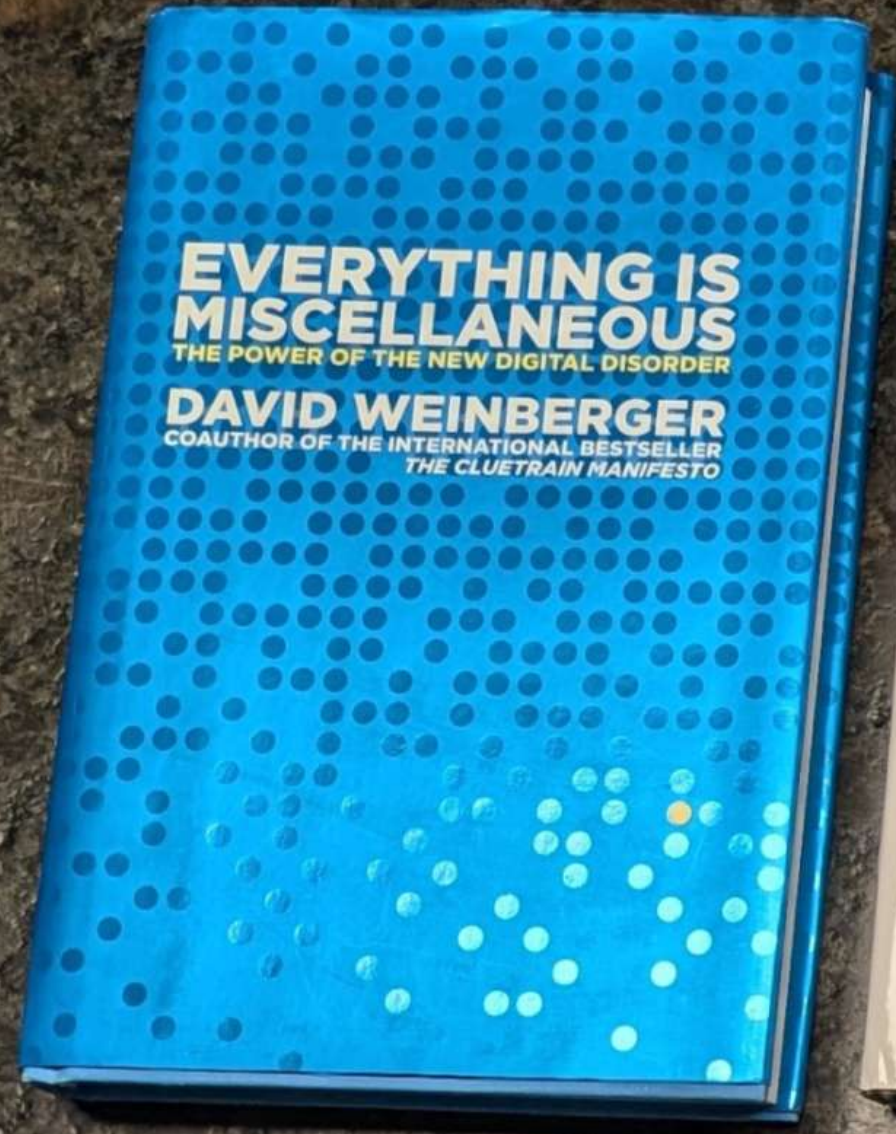
If you use **multiple hierarchies**, keep them similar

Emails, folders, bookmarks, ...

Three Orders of Order

First Order

We organize things themselves



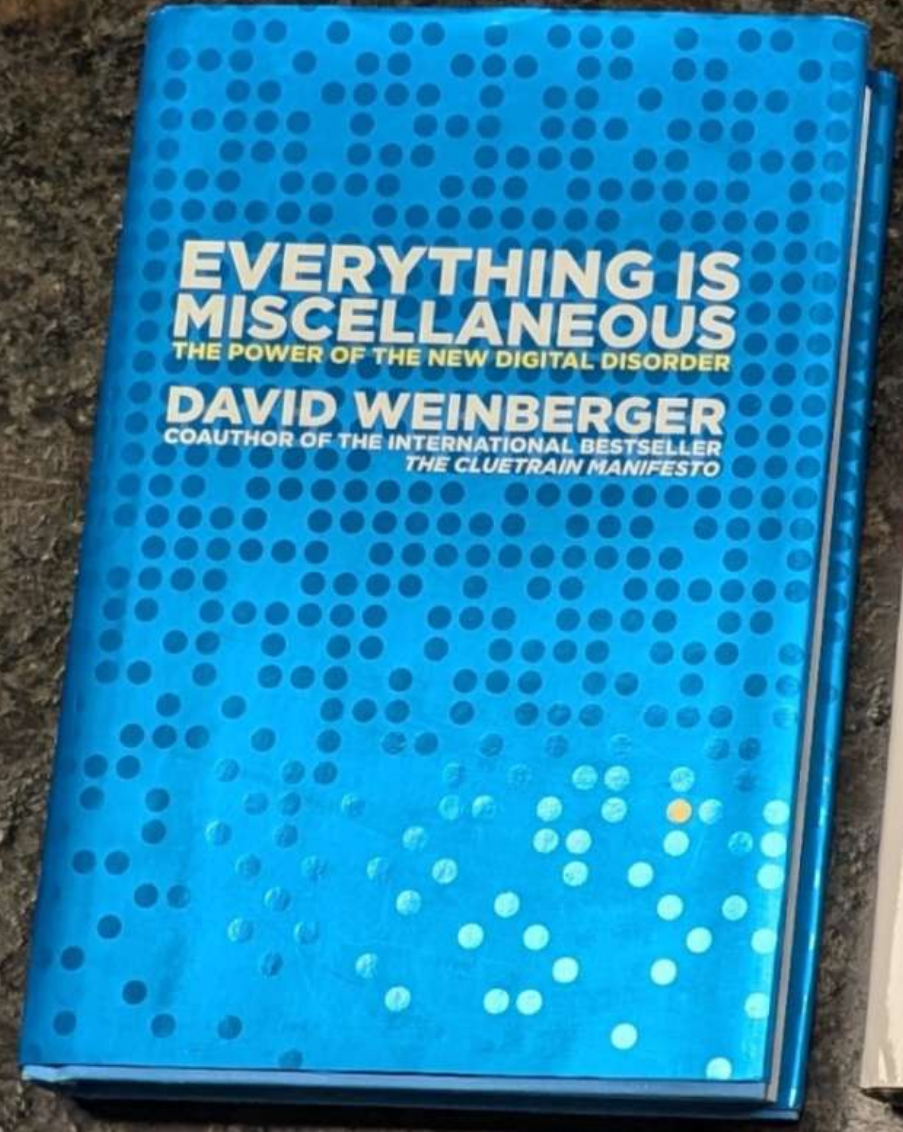
Three Orders of Order

First Order

We organize things themselves

Second Order

A card catalog containing information about each of the objects



Three Orders of Order

First Order

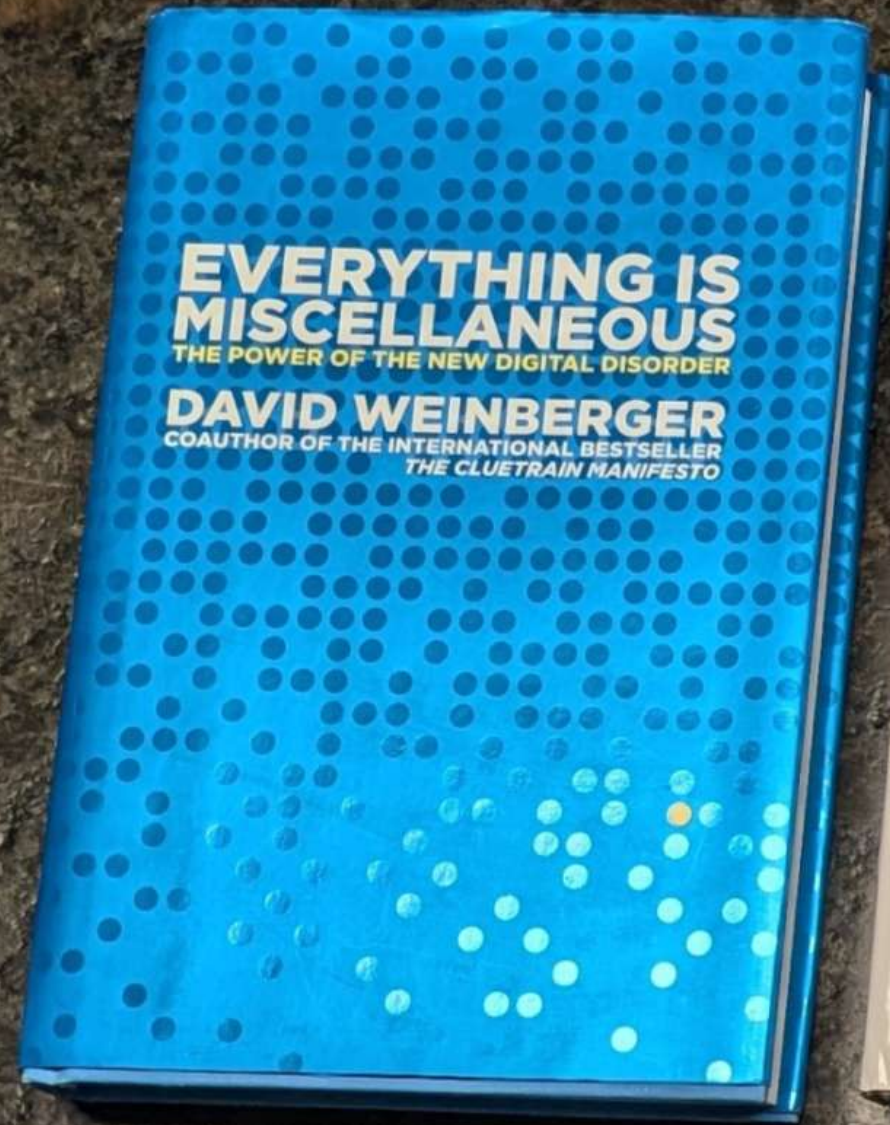
We organize things themselves

Second Order

A card catalog containing information about each of the objects

Third Order

Content is digitized into bits





Multi-Classification

Tagging,
Labelling, ...

A thing can have
one to many
different
associations to
different
“concepts”.

How to Use Tags

Tagging is **not** that intuitive as you might think.

1. Use as **few tags** as possible.
2. **Limit** yourself to a self-defined set of tags.
3. Tags within your set **must not overlap**.
4. By convention, tags are in **plural**.
5. Tags are **lower-case**.
6. Tags are **single words**.
7. Keep tags on a **general level**.
8. **Omit** tags that are obvious.
9. Use **one tag language**.
10. **Explain** your tags.

Example of useful tags:

selection

taxes

bills

manuals

screenshots

draft, submitted, published

public, confidential, secret

A folder named “to delete” (or similar) for Downloads, temporary files, ...

... whose content may be deleted any time (or automated cleanup after a certain period)

Similar folder: "to archive"?



Dedicated Inbox

Self-explanatory file/folder names!

File retrieval using file names require self-explanatory and perhaps also redundant file names.

less helpful

New File(3).odt

Report.pdf

Report final final2.pdf

Report v2.odt

more helpful

Projekt X Report 2025-10 -- draft.odt

2025-10-15 Projekt X Report.pdf

2025-10-15 Projekt X Report -- submitted.pdf

2025-10-15 Projekt X Report - incl. finance -- draft.pdf

My Personal File Management Method

Minimaller folder hierarchy

- Archive/2025/
 - 2025-08-20 Protocol Meeting graz.social.org
 - 2025-09-10T12.41 Birthday cake Michael with 100 candels -- fun cliparts.jpg
 - 2025-11-17 Energy provider 35€ payment -- bill house.pdf
 - 2025-11-19 Talk - Personal File Management/
 - 2025-10-30 Protocol organization file management talk.org
 - 2025-11-10 Invitation for the file management event -- invite.pdf
 - 2025-11-19 Karl Voit - Personal File Management - Talk -- presentations.pdf

File name convention

File Tags

Methods and supporting tools for storage as well as retrieval

TagTrees as mix of search and navigation using tags

```
/this/is/a/folder/2014-04-20T17.09 Picknick in Graz -- food graz.jpg  
[ move2archive ][ date2name ] [appendfilename] [ filetags ]
```

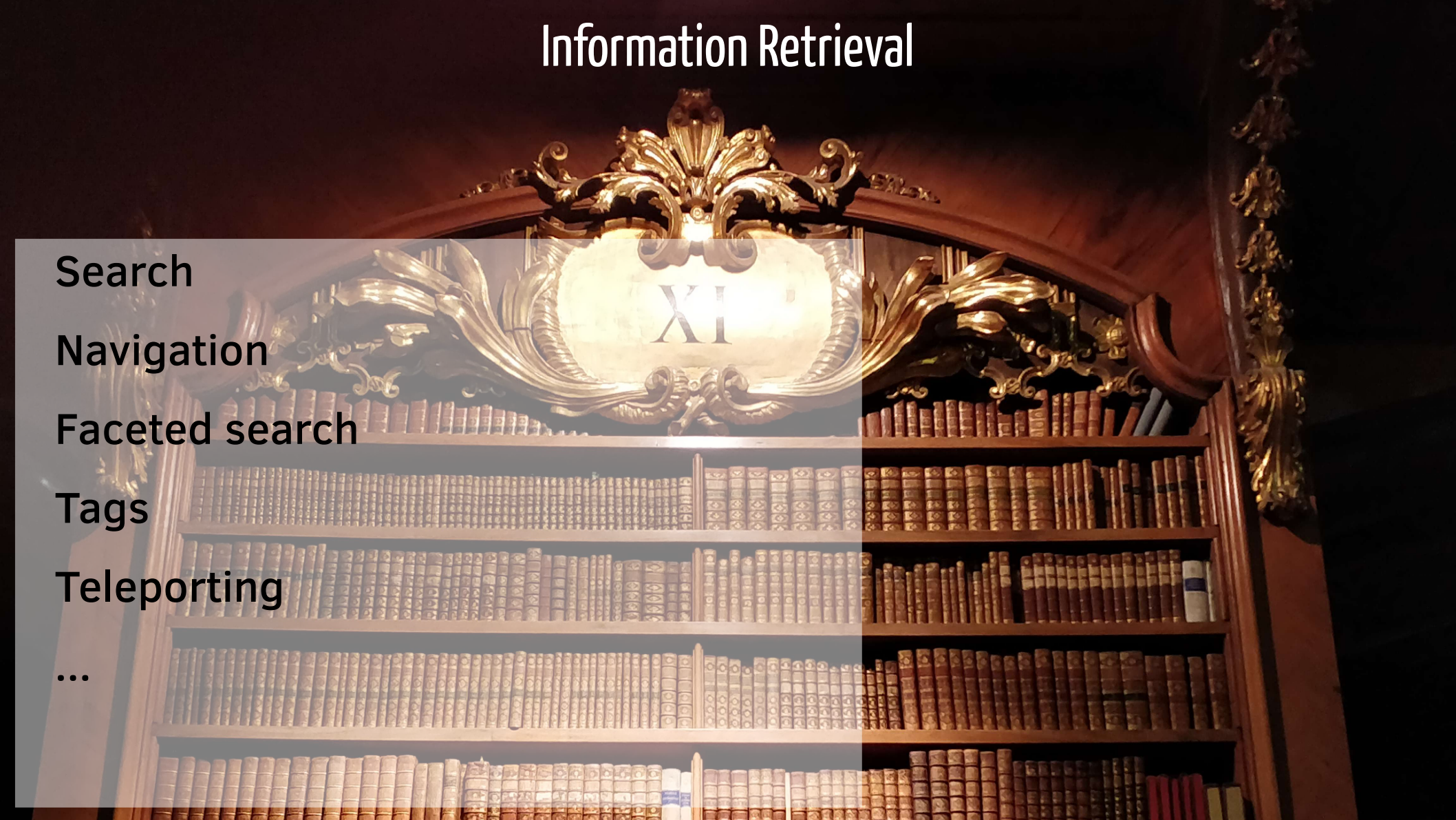
Information Retrieval

Search

Navigation



Information Retrieval

The background of the slide is a photograph of a grand, ornate library. The bookshelves are made of dark wood and are filled with numerous old, leather-bound books. The top of the shelf is decorated with intricate gold-colored carvings. In the center of the top shelf, there is a glowing, circular light fixture that displays the Roman numeral 'XI'.

Search

Navigation

Faceted search

Tags

Teleporting

...



Use the fancy power of modern computers!

Don't forget (local) file **search**!

Create **bookmarks** for frequently visited folders.

frequency-based tools

Windows File Explorer and macOS Finder are really limited tools

Maybe play around with different file management tools like:
FreeCommander (Windows) or fman

Tree Map Visualizations for locating
(sub-)hierarchies that hold large files

WinDirStat, QDirStat (Linux/UNIX), KDirStat (Linux/KDE), xdu
(Linux), Disk Inventory X (macOS), GrandPerspective
(macOS).

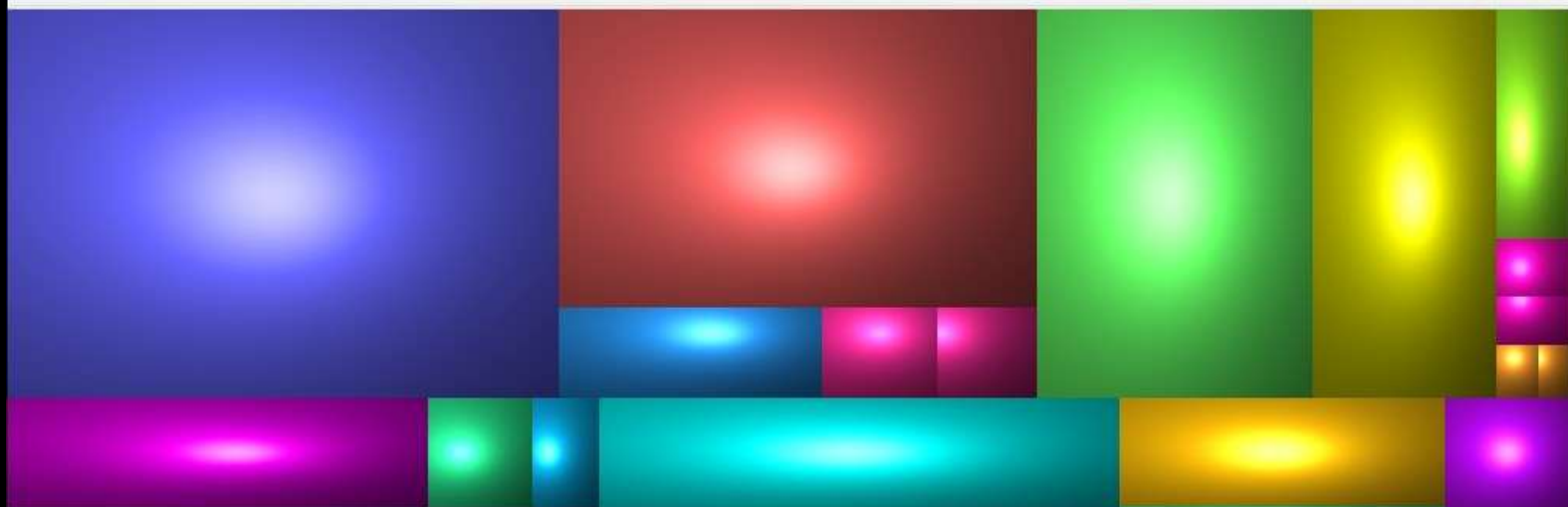
WinDirStat - V:\WinDirStat Sample\

File Edit Clean Up View Tools Options Help

Name	Size Proportion	Percentage	Physical Size	Logical Size	Files	Extensi...	Col...	Description
V:\WinDirStat Sample		100.00%	66.34 MiB	66.34 MiB	22			
System Images		27.13%	18.00 MiB	18.00 MiB	1			
workstation-backup.vhdx		27.13%	18.00 MiB	18.00 MiB				
Media		23.55%	15.63 MiB	15.63 MiB	4			
Video		18.09%	12.00 MiB	12.00 MiB	1			
training-video.mp4		18.09%	12.00 MiB	12.00 MiB				
Audio		3.01%	2.00 MiB	2.00 MiB	1			
presentation.wav		3.01%	2.00 MiB	2.00 MiB				
Photos		2.45%	1.63 MiB	1.63 MiB	2			
landscape-01.jpg		1.32%	896.00 KiB	896.00 KiB				
landscape-02.jpg		1.13%	768.00 KiB	768.00 KiB				
Backups		13.57%	9.00 MiB	9.00 MiB	1			

Extensi... Col... Description
 .vh... Hard Disk Image File
 .mp4 MP4 Video File (VLC)
 .zip Compressed (zipped) F
 .pdb Program Debug Datab
 .msi Windows Installer Pack
 .pdf Adobe Acrobat Docum
 .csv Microsoft Excel Comm
 .wav WAV File
 .jpg JPG File
 .png PNG File
 .7z Compressed Archive Fo
 .xlsx Microsoft Excel Worksh
 .cpp C++ Source File

All Files Largest Files



Ready

Physical Size: Σ 0 bytes

Memory Usage: 47.07 MiB

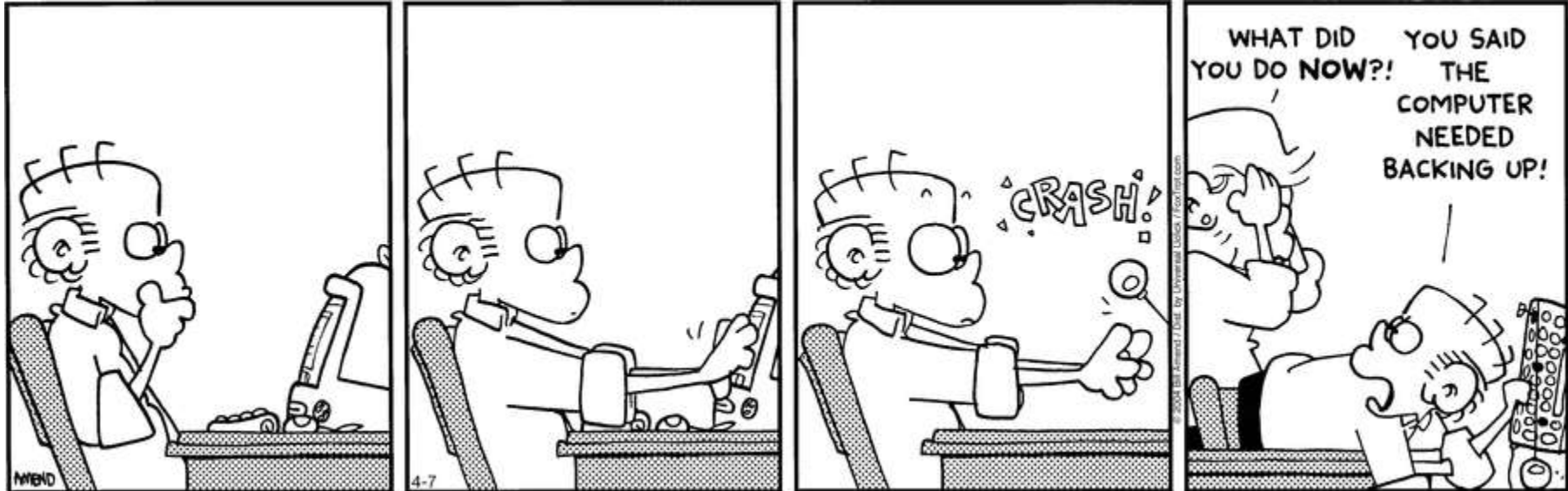
Other Topics

Proper backups are a must!

Privacy-respecting **file synchronizaton**

Syncthing.net

NextCloud



Whatever floats your boat

Everything is
OK as long as it
supports your
situation.

Don't lie to
yourself and
reflect your
situation from
time to time.
Things change.

公開空地ご利用に際しての禁止事項

- ❌ 危険物の持ち込み
- ❌ たき火・花火等の火気の使用
- ❌ 土地または施設を破損する行為
- ❌ 什器の持ち出し・破損行為
- ❌ 植木・草花の採取・破損行為
- ❌ セッケンの着用・旗ざおの持込・プラカードの持込
- ❌ 集会・演説・座り込み・暴力行為その他これに類する示威行為
- ❌ 無許可での販売・ビラの配布等
- ❌ 無許可での広告宣伝行為
- ❌ 無許可イベント
- ❌ シートを敷いての公開空地の利用
- ❌ オートバイ・自転車の乗り入れ
- ❌ ハット・ゴルフクラブ等の使用、集団でのボール遊び
- ❌ スケートボード・キックボード・ローラースケート
- ❌ ごみの放置
- ❌ 芝生内での飲食行為
- ❌ 芝生内へのベットの立ち入り
- ❌ ベットの糞尿の放置
- ❌ 他の利用者・近隣に迷惑になる行為
- ❌ その他管理者が安全・秩序を乱すと認めた行為

How to Choose a Tool

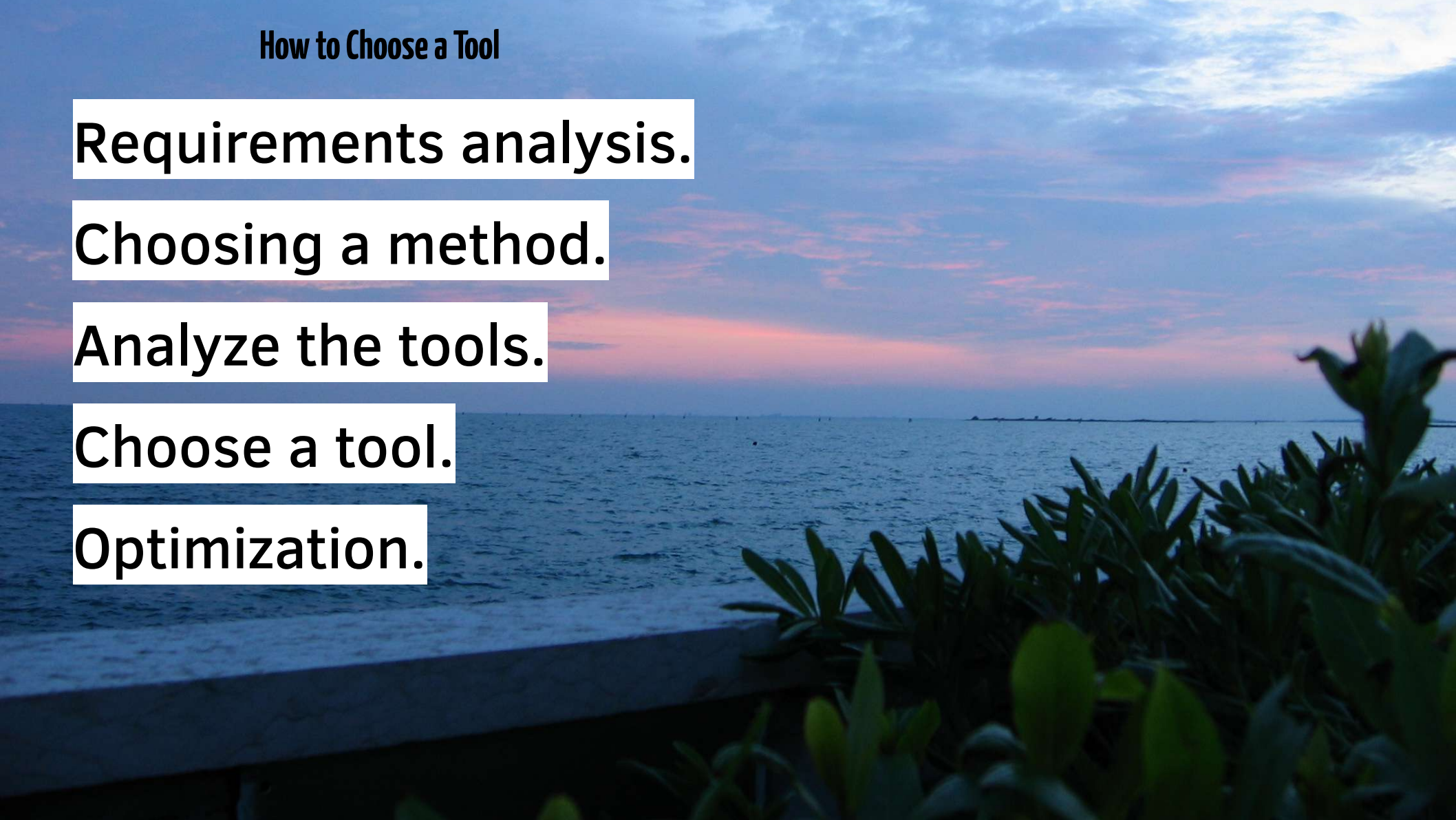
Requirements analysis.

Choosing a method.

Analyze the tools.

Choose a tool.

Optimization.



How to Choose a Tool

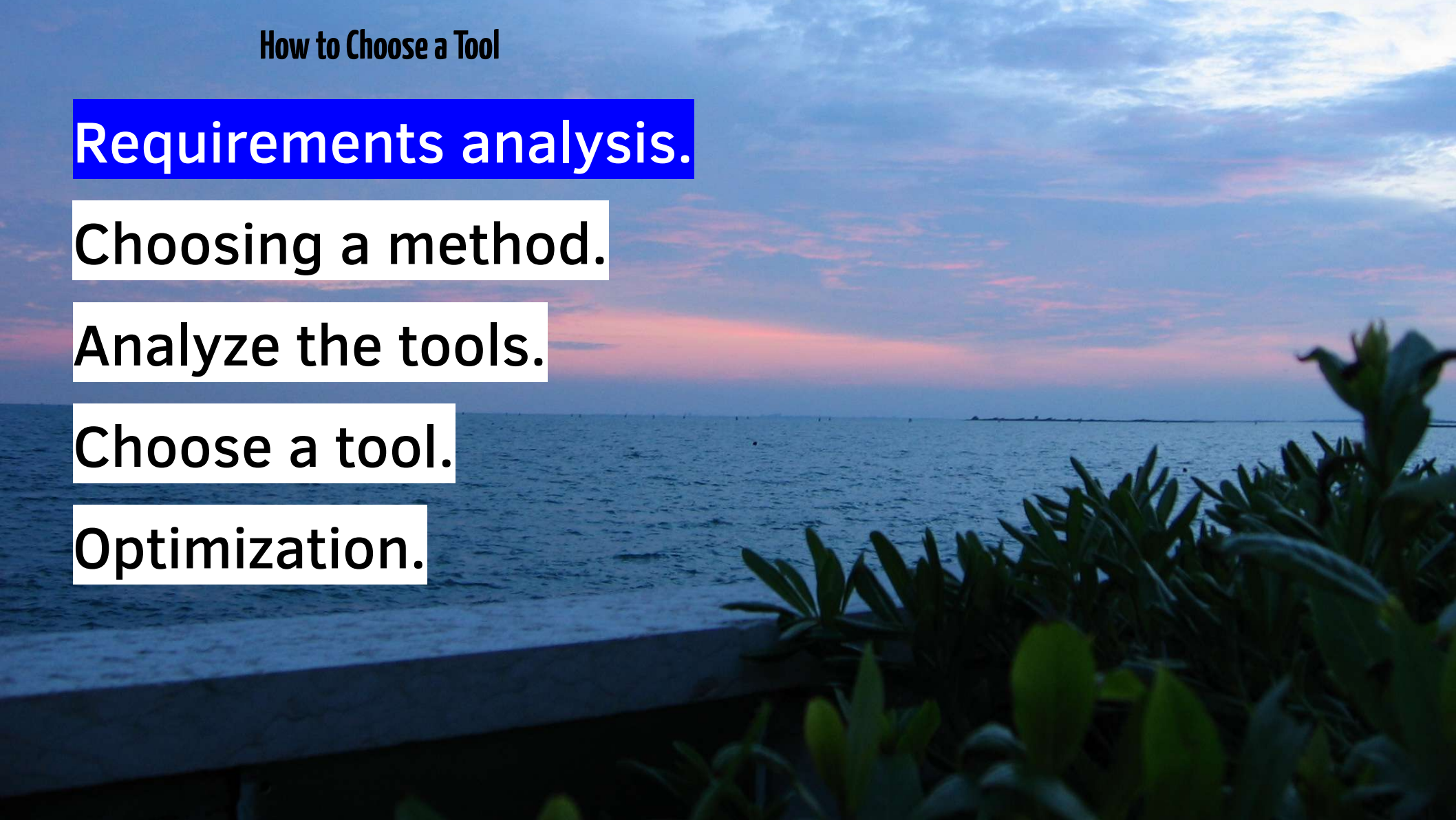
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Requirement Analysis

Brainstorming

What ***really*** needs to be accomplished?

Create a list:

- What has **priority**?
- What is **nice-to-have**?
- What are **non-goals**?

Include topics like:

flexibility to adapt to changing requirements,

lock-in appetite (migration cost after EoL),

data protection and security,

privacy,

dependencies, ...

How to Choose a Tool

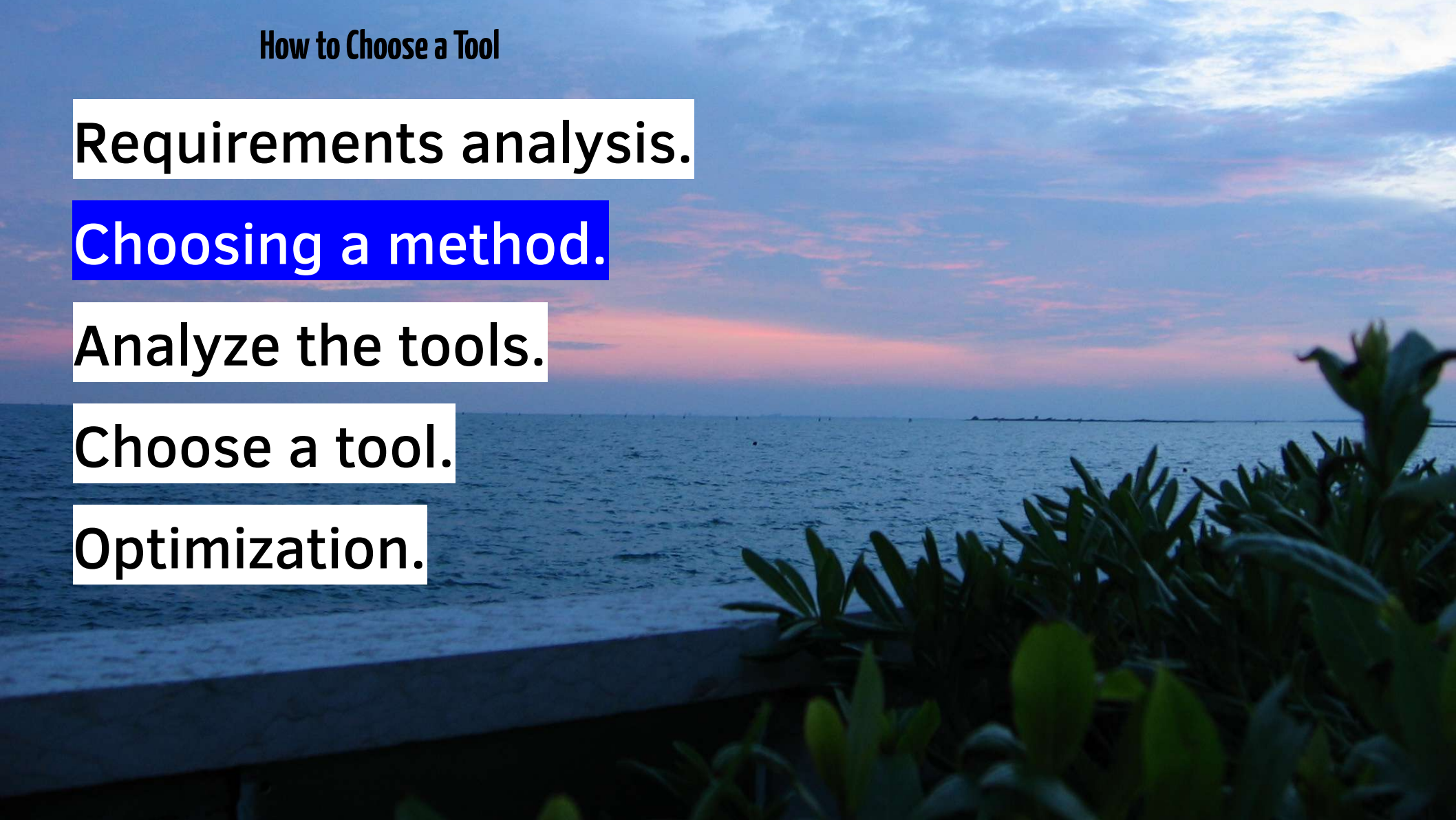
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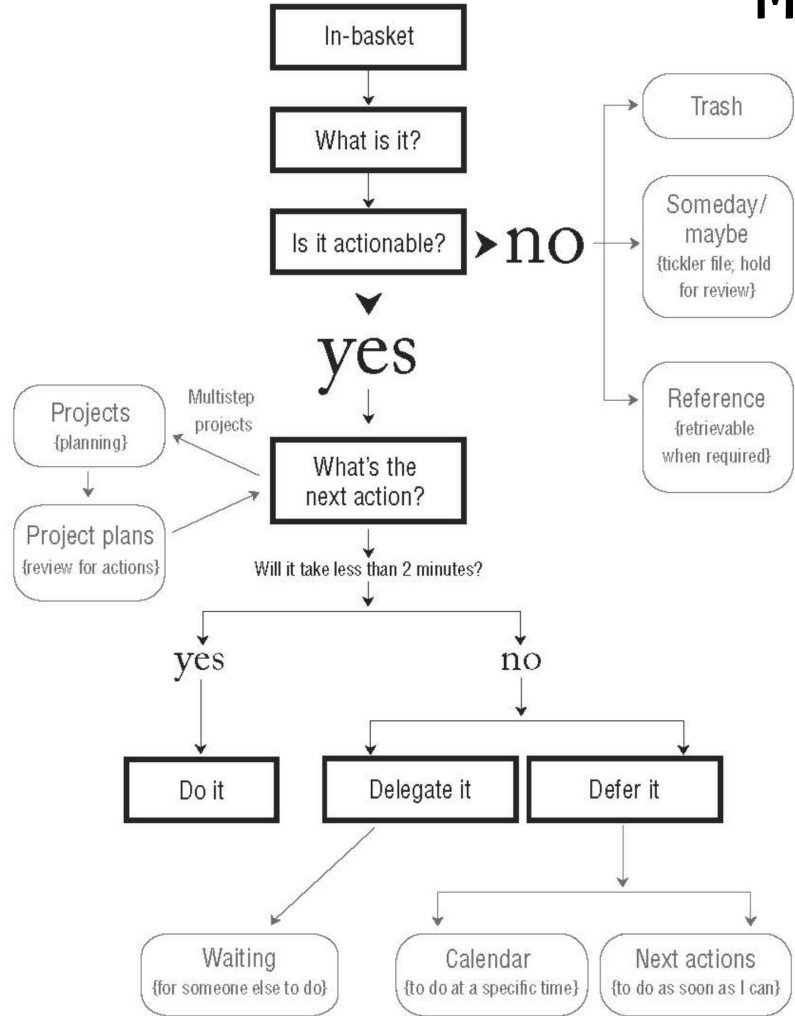
Analyze the tools.

Choose a tool.

Optimization.



“stuff”



Methods vs. Tools



Identifying **Methods**, **Best Practices**, **Patterns**, ...

Search on the web

Ask peers

Read books

Match the (known) methods to your prioritized requirements.

By doing so, you **learn from the pros**.

Notice, that you are still **independent** of any specific technological solution.

How to Choose a Tool

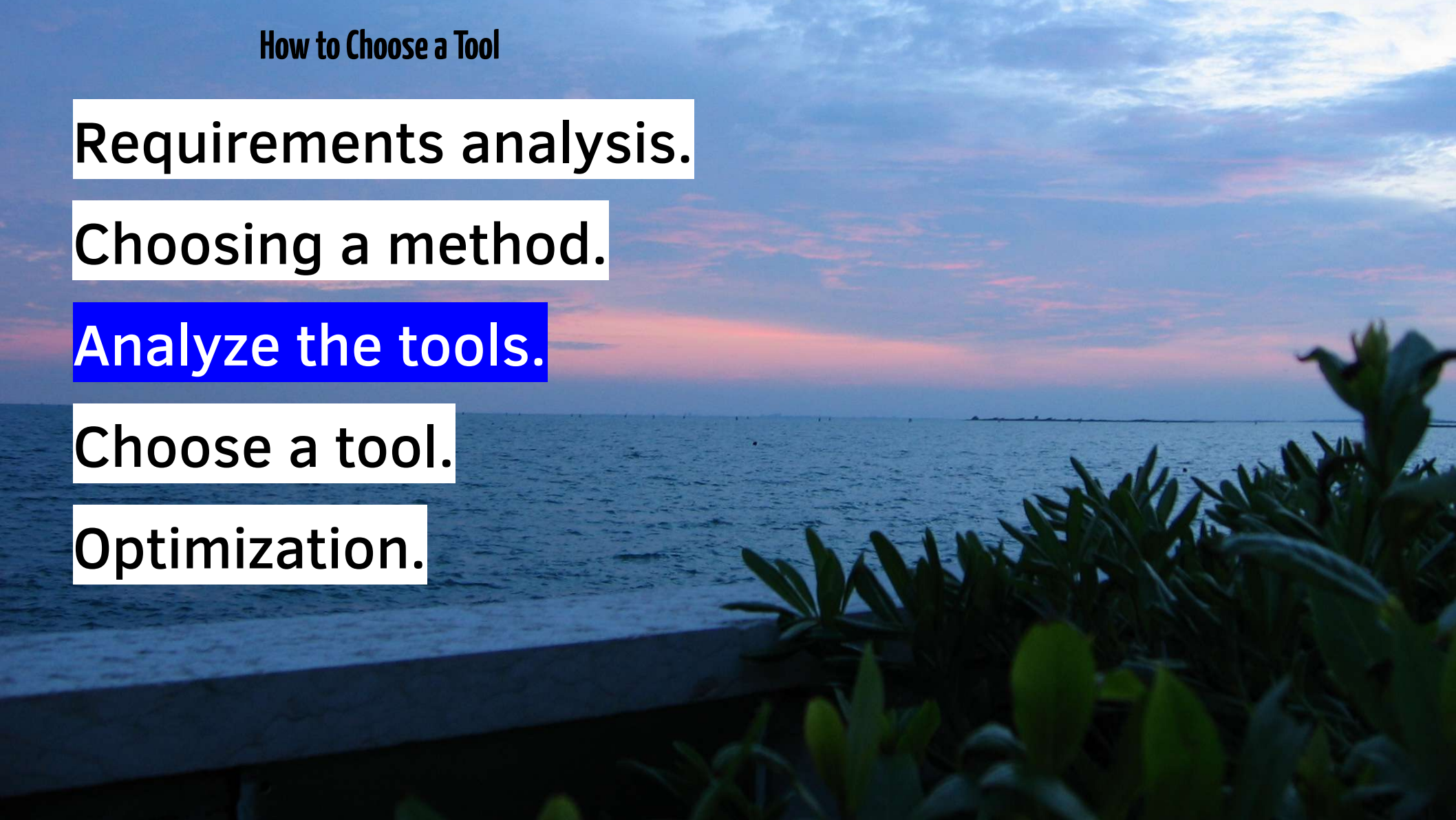
Requirements analysis.

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Analyzing Tool Options

Search on the web

Ask peers

Read books

Don't forget to include small/new/unusual solutions.

Don't focus on tools that are already known to you.

Never underestimate migration costs that result from overlooked lock-in effects!

How to Choose a Tool

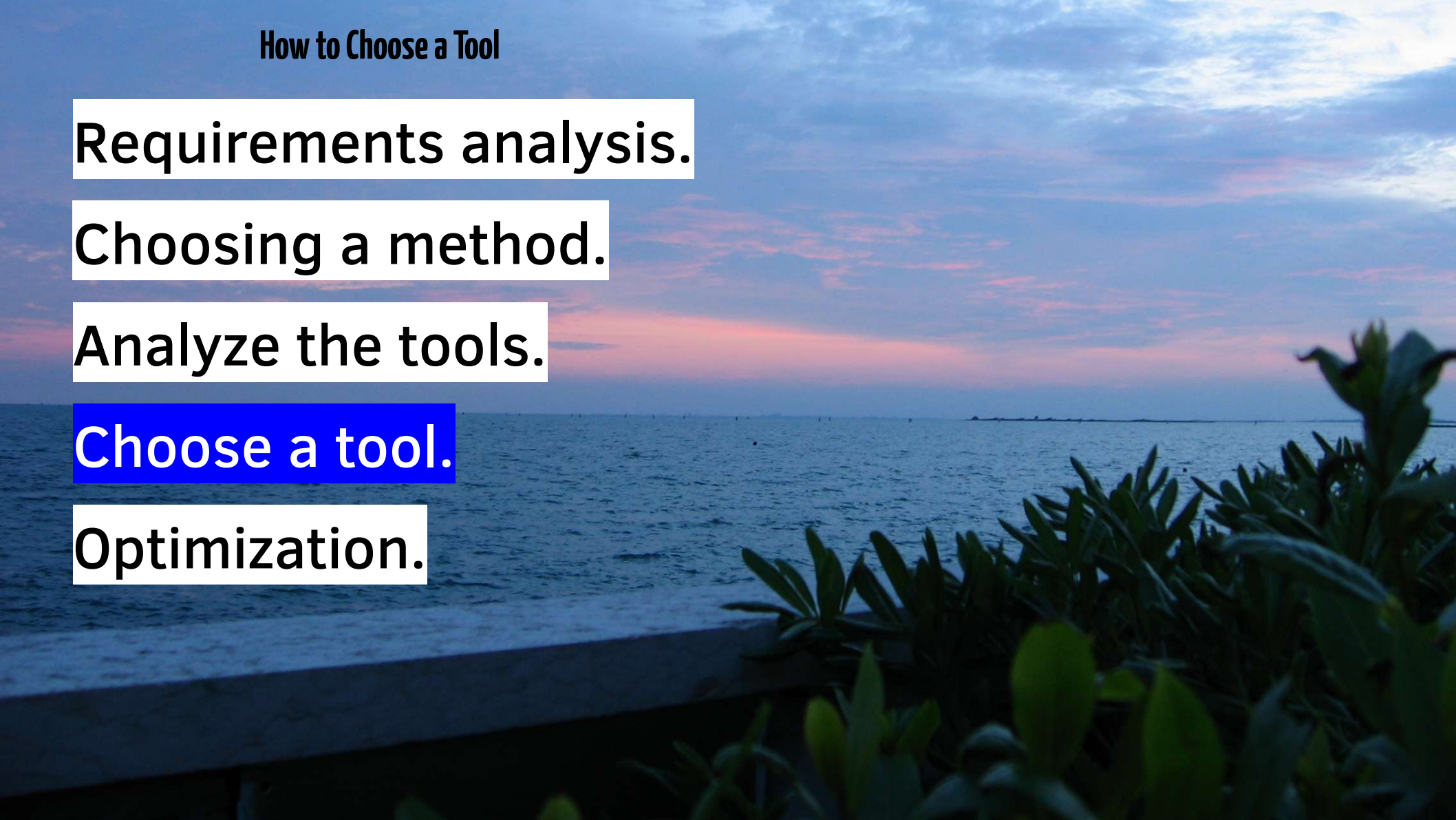
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Choose your Tool

Match available tools to your **prioritized requirements**.

Maybe assign numbers to find the best candidate(s).

Now is the time to profit from your preparations so far.

Make sure that all must-haves are fulfilled.

Retrospectively modify your requirements only with very good reasons.

How to Choose a Tool

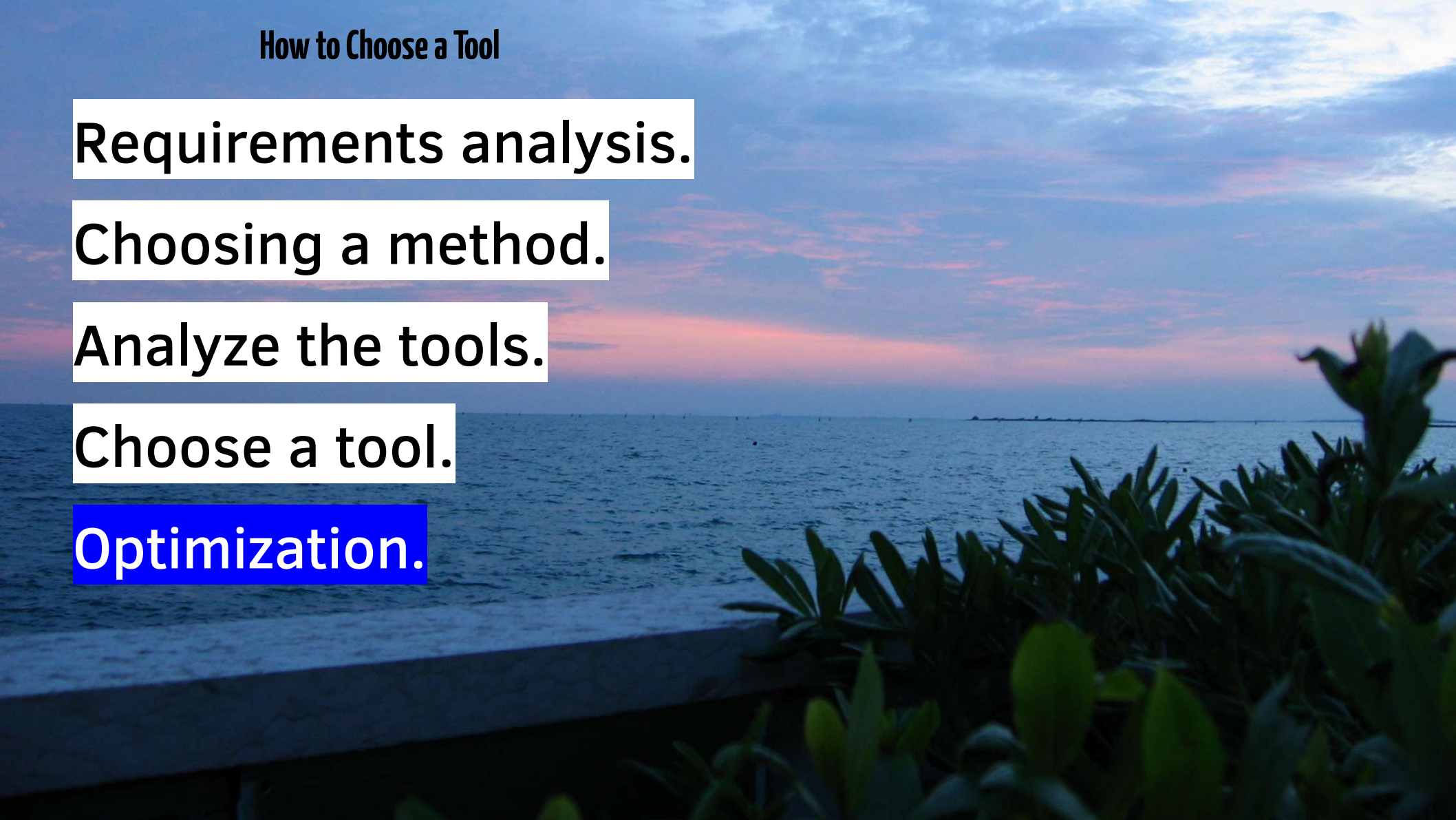
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Periodical Improvements and Re-Evaluation of Your Requirements and Choices

Never stop optimizing your tool to fit your changing requirements. A wise tool choice results in a flexible tool for dynamic environments.

Re-check your requirements and lock-in situations.

Automatize repetitive tasks.

Re-evaluate your **tool choice** and maybe also your chosen method. If your current tool doesn't match your current requirement set any more: start from scratch and **migrate** to the next tool.

How to Choose a Tool

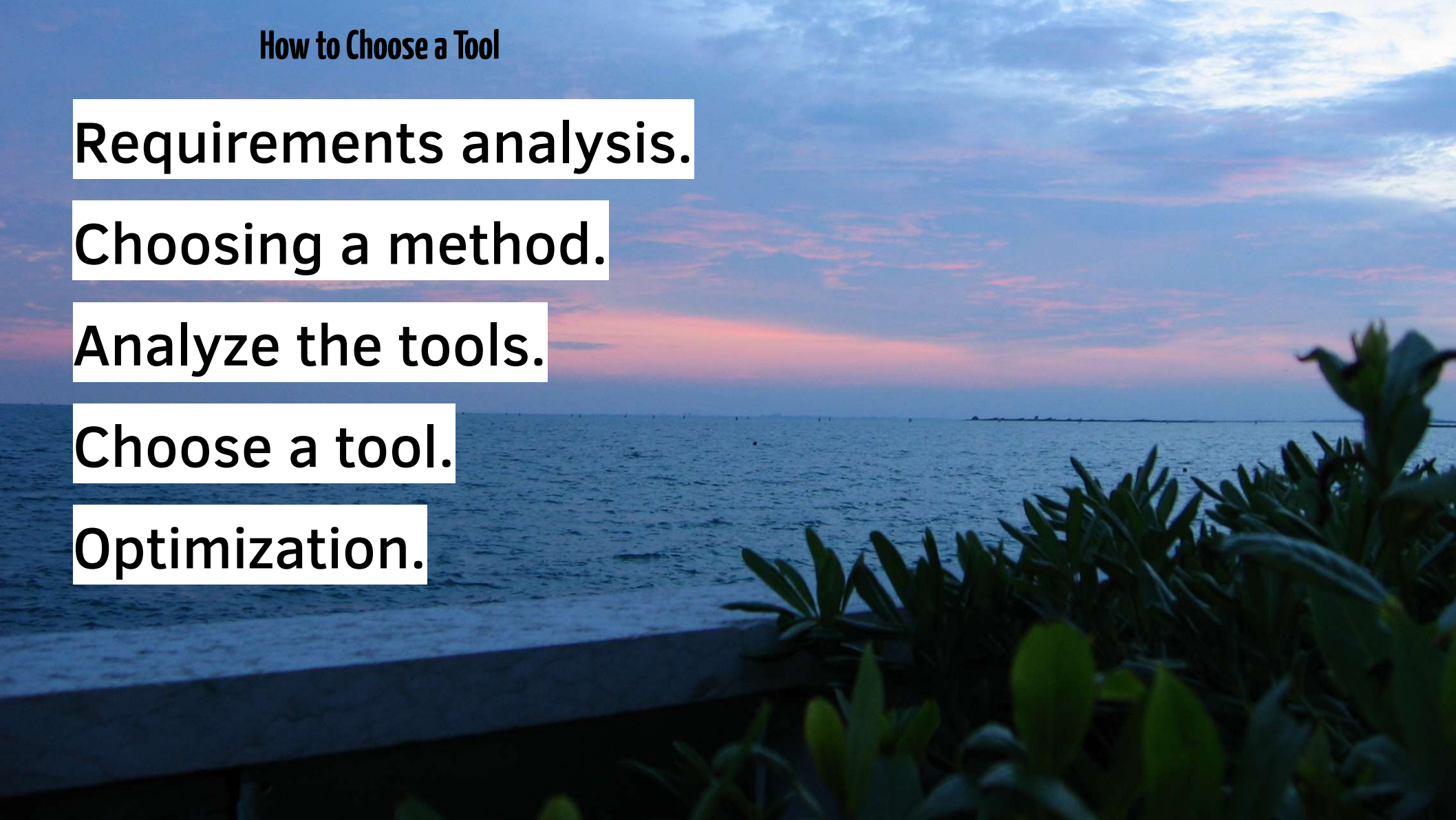
Requirements analysis.

Choosing a method.

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Choose a tool.

Optimization.



Too fast? Too much? Curious of more?

Notes, links, sources, ... on:

<https://Karl-Voit.at/Basics-of-PIM-Talk/>



Thank you!



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