How to Avoid Losing Your Digital Photographs

Agenda

- Finding Your Photos
- Sharing Your Photos
- External Portable Hard Drive
- Internet Cloud Storage Services
- Everyday Tips

Presentation

ccullens.com/backup

Chane Cullens
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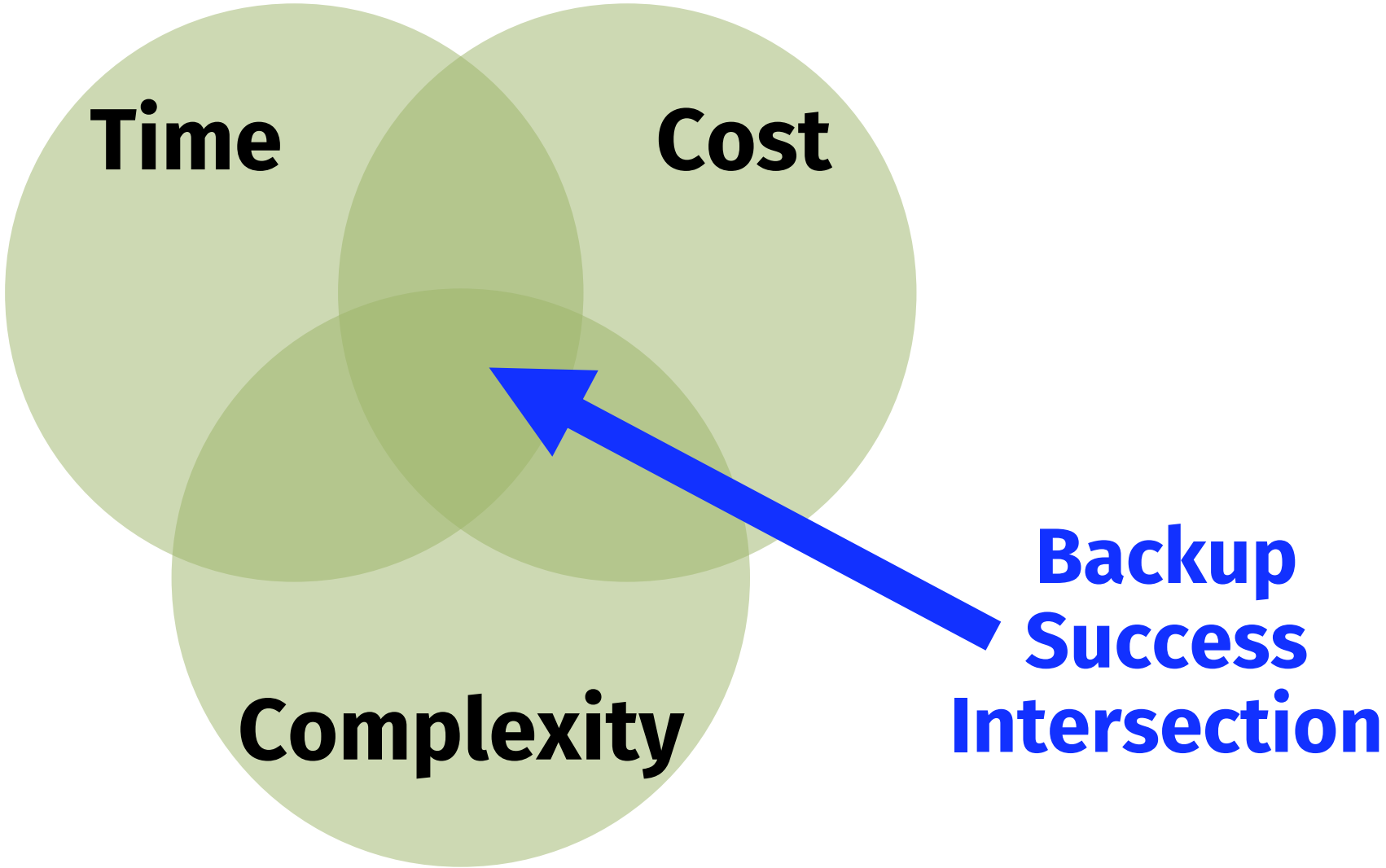
February 1, 2023

Why Don't We Backup Enough?

Backing up photos is preserving memories



Preserving Memories Facts

Your digital memories can disappear in the blink of an eye - hardware failures, loss & disaster

Fact 1

- There are many “right ways”

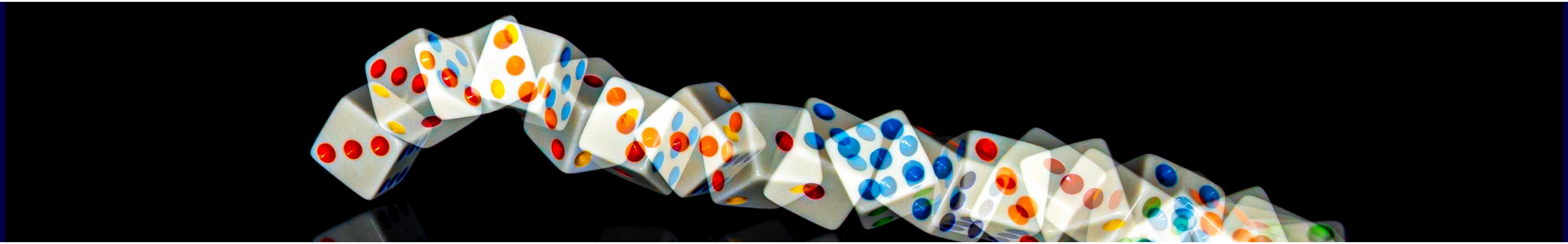
Fact 2

- Backup is an “ongoing” activity, not a “one-time” activity

Fact 3

- The longer you ignore backup, the worse the loss will be

Agenda



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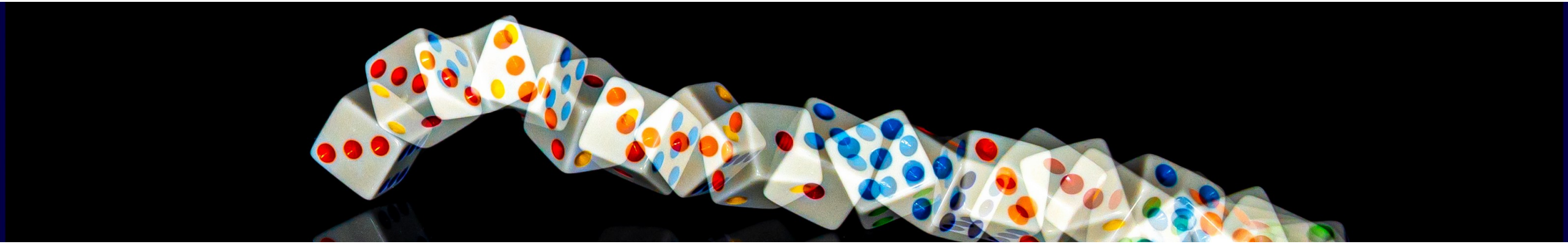

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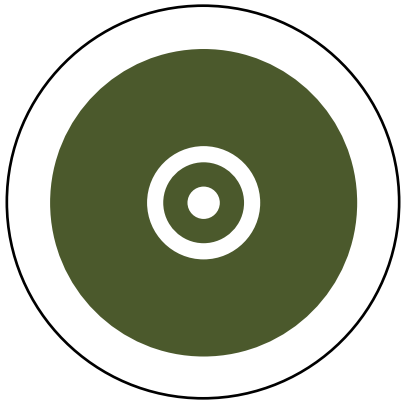
Photos Exist in Many Forms

Historical

- Prints, Negatives, Slides – Need converted to digital

Printed

- Prints, framed photos, holiday cards, books



Optical

- CD, DVD, Blu-ray

Camera & Computer

- Camera memory cards, USB flash drives, internal & external drives

Cloud

- Over the internet somewhere in the “cloud”
- Does your phone save to the cloud?

Finding Your Photos

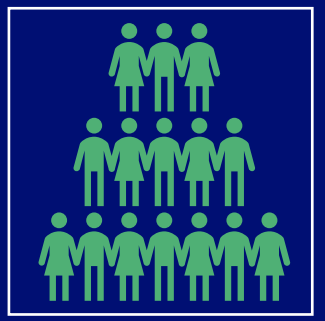
Consistency reduces the complexity of finding a photo - location, organization style & labeling

Consistent Digital Archive Location

You must know where to look to find photos

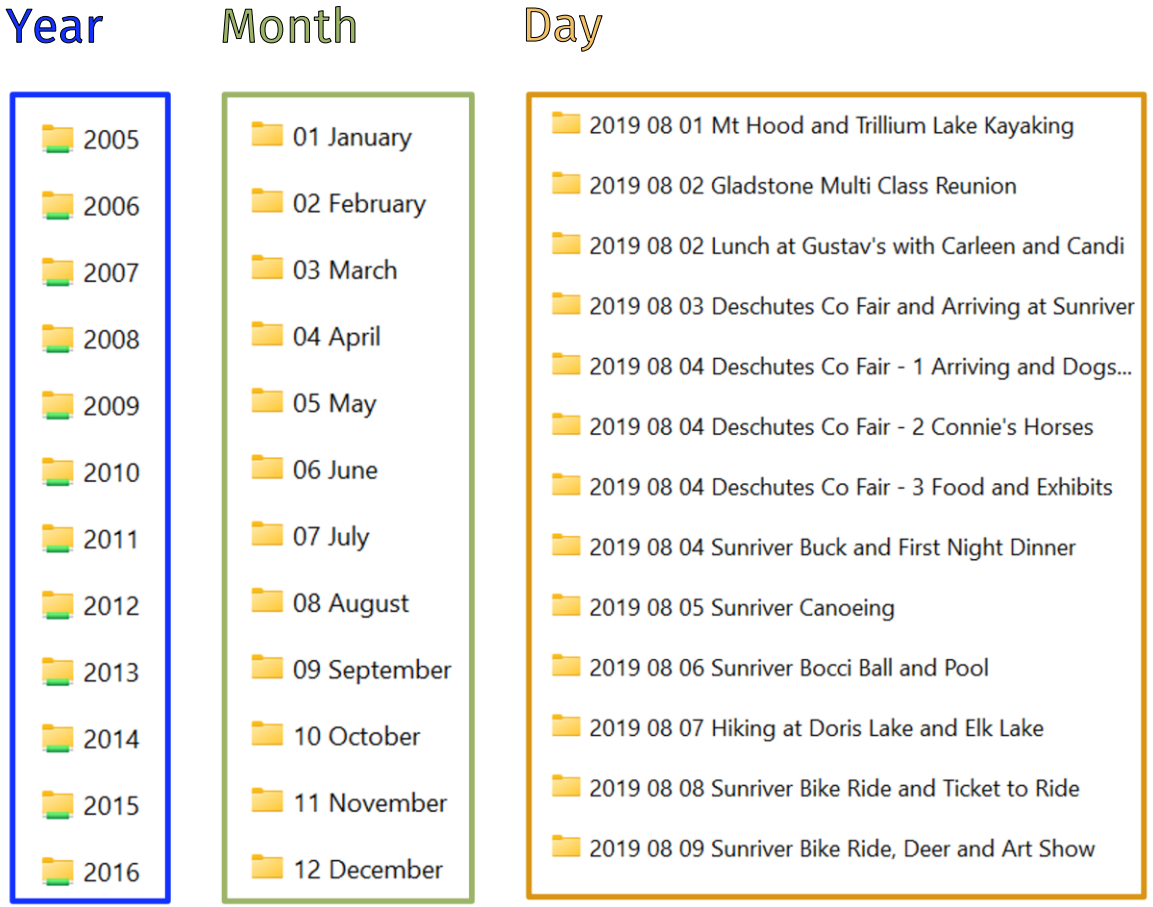
Location, Location, Location … Jo's computer, Blue external drive, …

Tell others the location



More than 1 location is good, more than 3 locations does not work

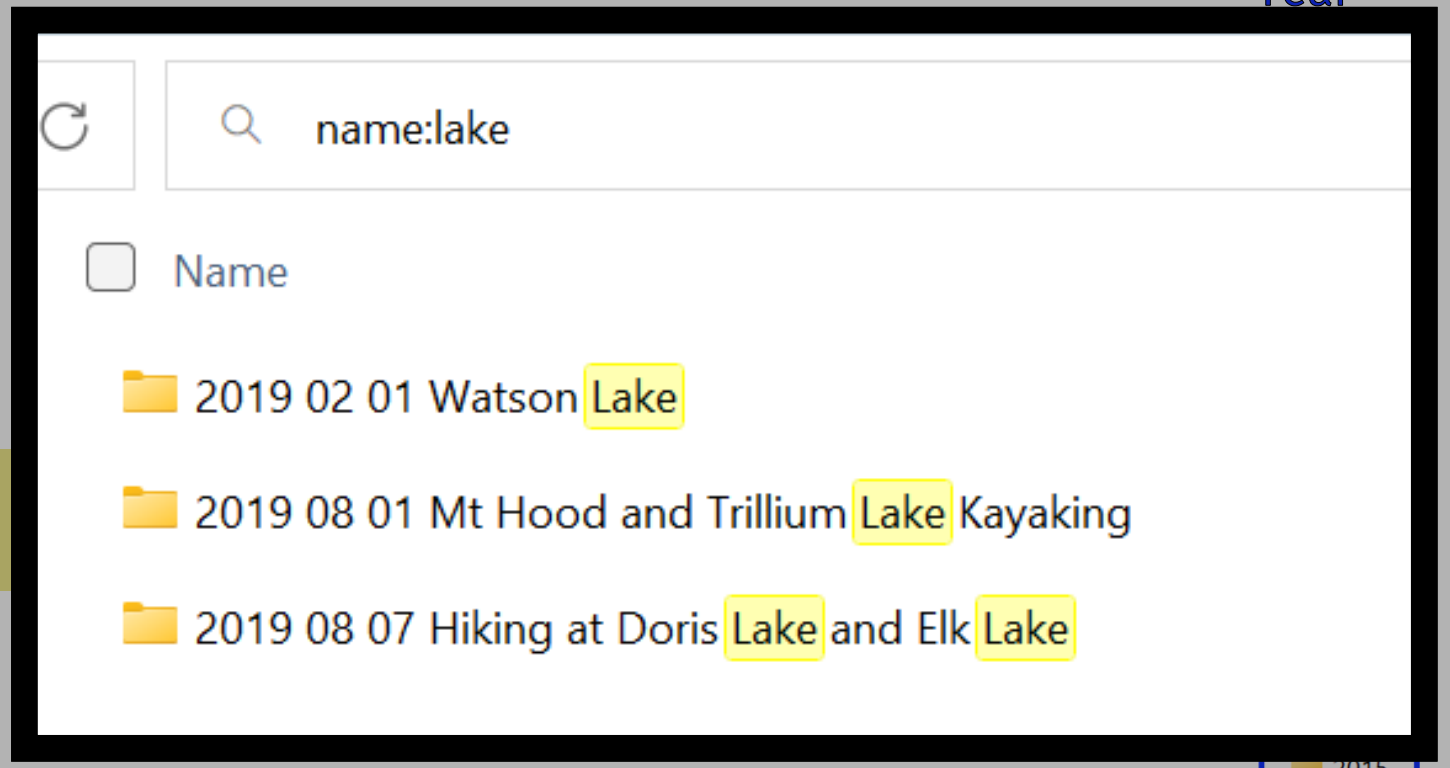
Consistent Organizational Style



Organization Hint

1. By date
2. With descriptive titles

\2019\08 August\2019 08 01 Mt Hood and Trillium Lake Kayaking



Year

2015
2016

Month

01 January
02 February
03 March
04 April
05 May
06 June
07 July
08 August
09 September
10 October
11 November
12 December

Day

2019 08 01 Mt Hood and Trillium Lake Kayaking
2019 08 02 Gladstone Multi Class Reunion
2019 08 02 Lunch at Gustav's with Carleen and Candi
2019 08 03 Deschutes Co Fair and Arriving at Sunriver
2019 08 04 Deschutes Co Fair - 1 Arriving and Dogs...
2019 08 04 Deschutes Co Fair - 2 Connie's Horses
2019 08 04 Deschutes Co Fair - 3 Food and Exhibits
2019 08 04 Sunriver Buck and First Night Dinner
2019 08 05 Sunriver Canoeing
2019 08 06 Sunriver Bocci Ball and Pool
2019 08 07 Hiking at Doris Lake and Elk Lake
2019 08 08 Sunriver Bike Ride and Ticket to Ride
2019 08 09 Sunriver Bike Ride, Deer and Art Show

Organization Hint

1. By date
2. With descriptive titles

\2019\08 August\2019 08 01 Mt Hood and Trillium Lake Kayaking

What is Metadata?

Information stored inside a photo that is not visible when viewing the photo

Description	Hoi An Old Town
City	Hoi An
State	South Central Coast
Country	Vietnam
Keywords	Bridge, Cityscape
Credit	Chane & Rhonda Cullens
Creator Work Email	Chane@CCullens.com
Creator Work URL	www.ccullens.com
Aperture Value	1.8
Exposure Time	1/13
Date/Time Original	2019:05:11...
GPS Latitude	15 deg 52' 35.55" N
GPS Longitude	108 deg 19' 36.76" E

... plus 100 other items

... varies by camera and download software

Always add as part of download

Seldom, Editing activity

Camera

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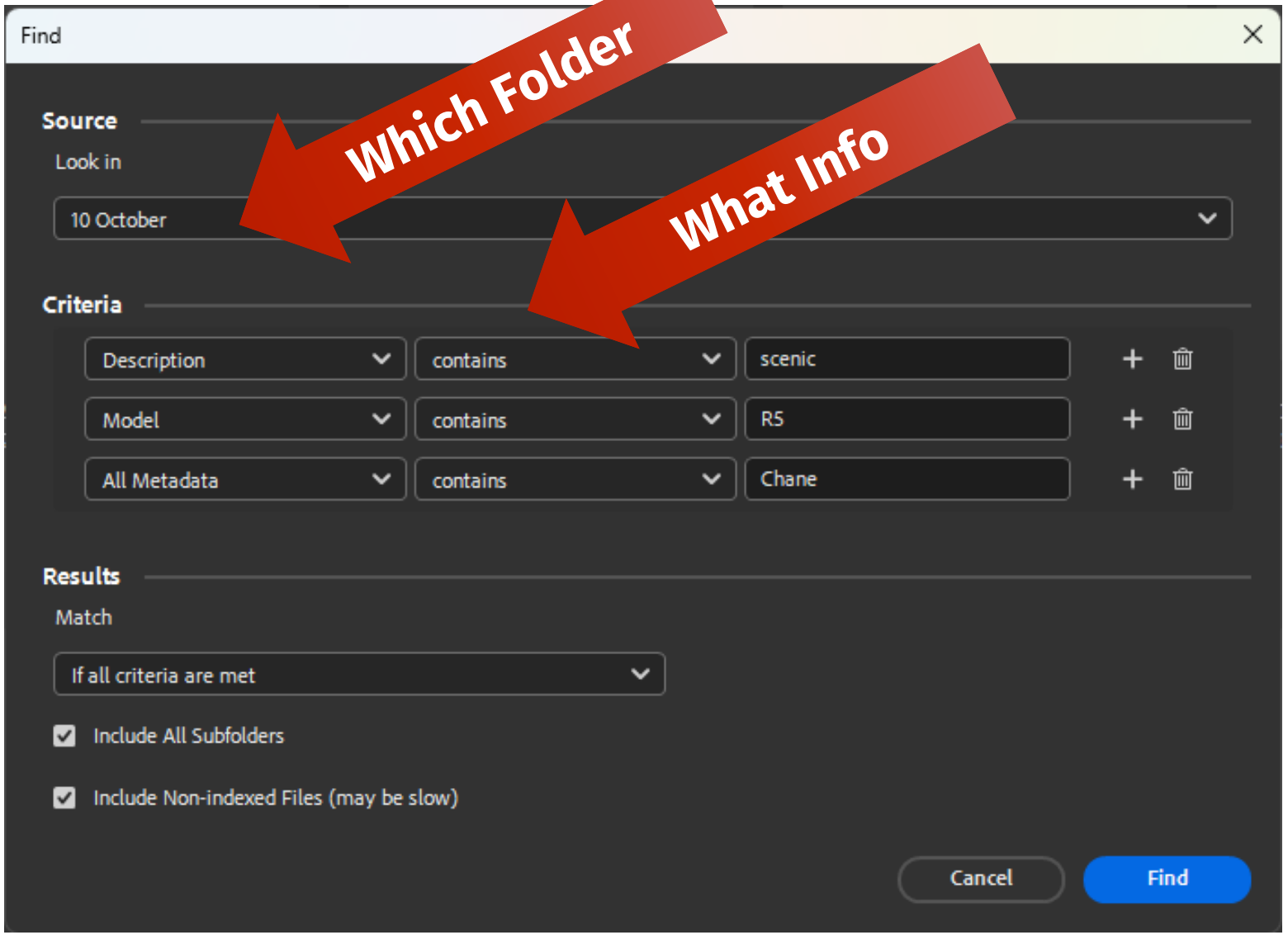
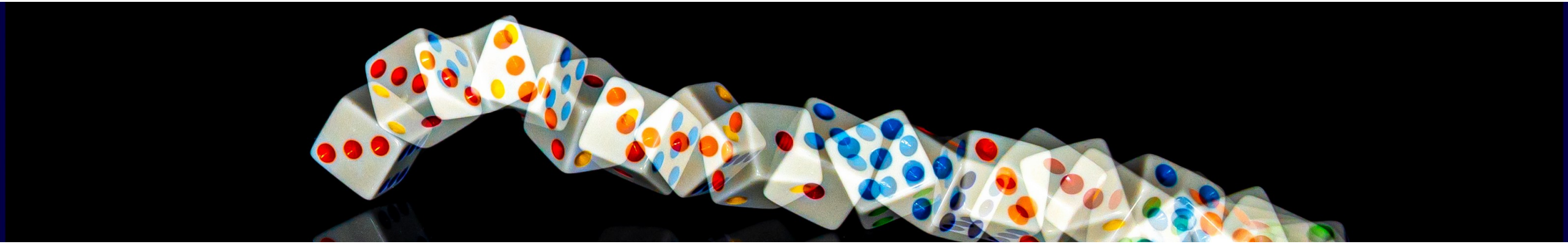
Consistent Metadata Style

Helps when searching for specific photos



Adobe Bridge – an app in the Adobe Photography Plan

Agenda



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Printing as Backup

Sharing them with friends and family provides “offsite” backup

Photos 4x6, 5x7 …
Books, Calendars …
Framed
Exhibits
Donations

Camera Club as Backup

Competitions

- Club, Interclub, NECCC
- Digital and print

Exhibits

- Prints

Club Website

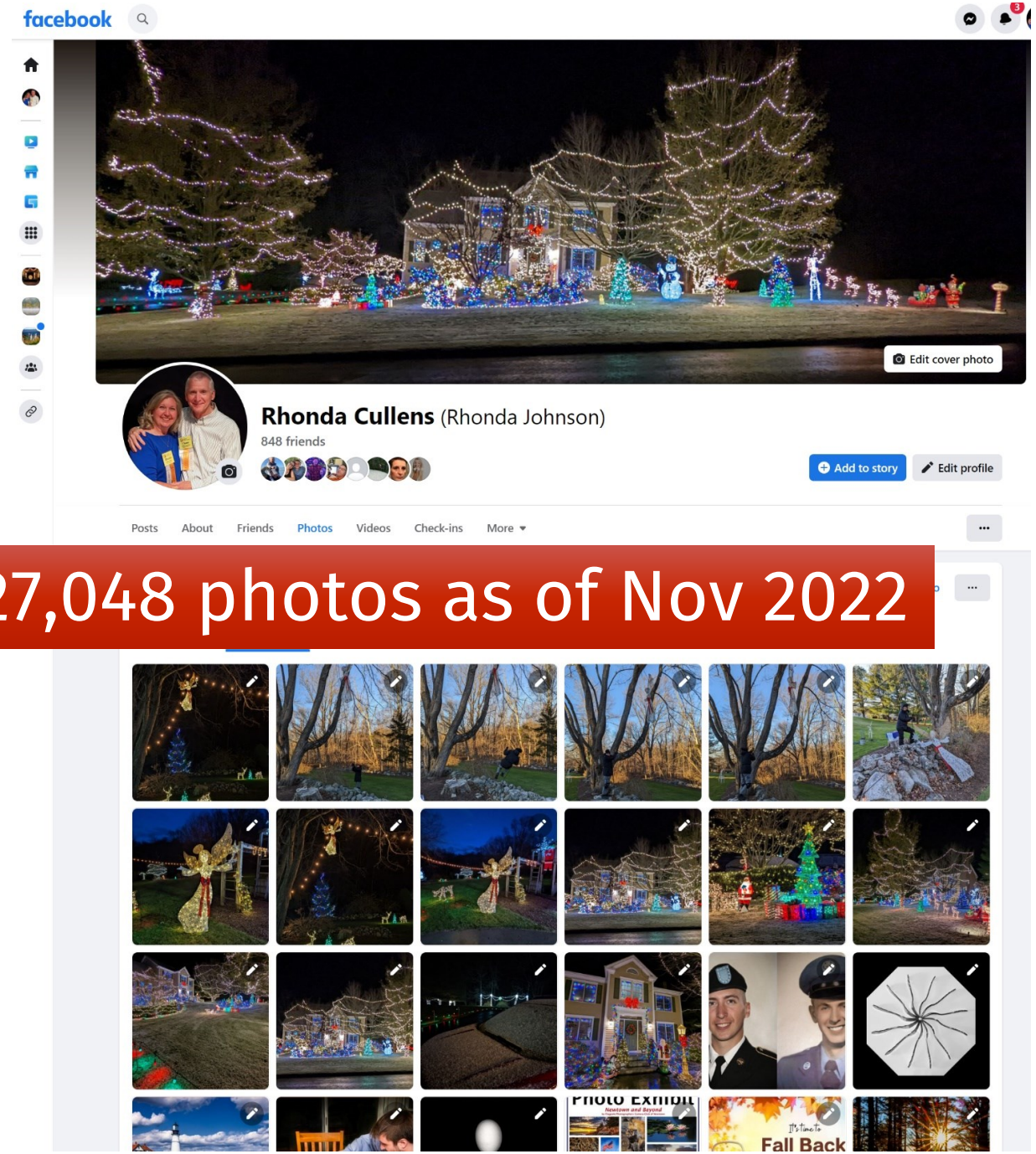
Social Media

A great free passive preservation method

Facebook

Instagram

Twitter …



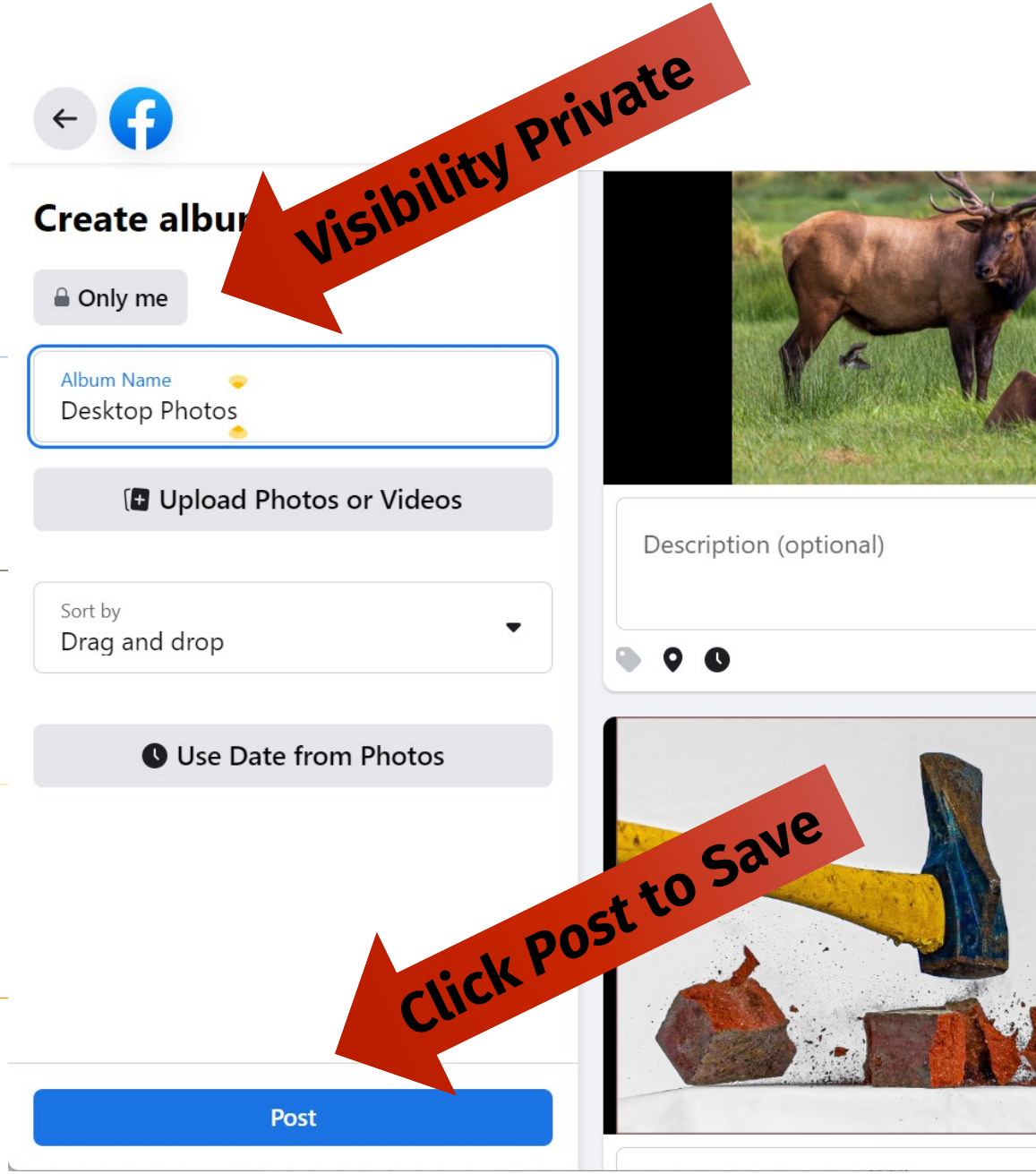
A Good Free Archive

Private Facebook Albums

1,000 photos per album

JPEG files

Photo quality good
(2000 x 2000 pixels)



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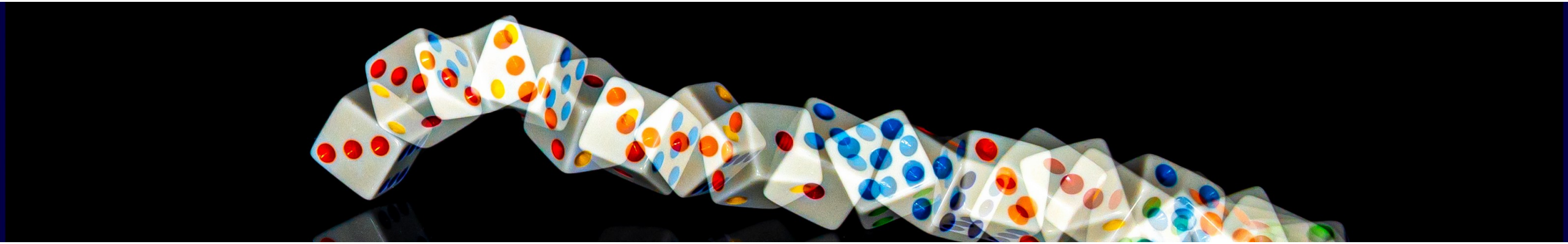

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Who Has an External Hard Drive?

Works with any computer

Lots of space for $100 → 4TB

- 100,000 RAW or 500,000 JPG

Lasts 3+ years with everyday use

Lasts 10+ years in storage

Most include backup software

Semi-fragile

Technology Tip

Deleted or Missing Files are often recoverable!

1

Look in Trash

2

Corrupted Drive. The most common loss is when the “index” to files has been damaged. Software may find files even when the “index” is missing. Search for tools online.

External Hard Drive

Many size options - 1TB to 100TB+

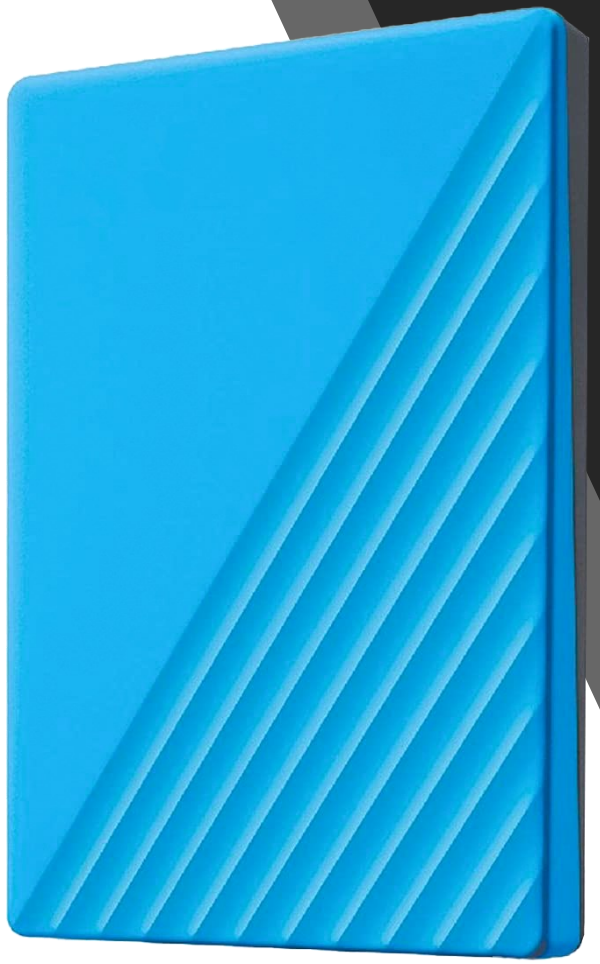
- ✓Cheap
- ✓Effective
- ✓Works on any PC
- ✓A great choice

Great

Expensive

How Much Storage?

Purchasing a hard drive



1

Find your total photo storage size by adding current photo storage – cards, flash drives, internal and external drives …

2

Buy a new drive **twice** as large for several years of new photos

Where to Start?

How to use your new storage

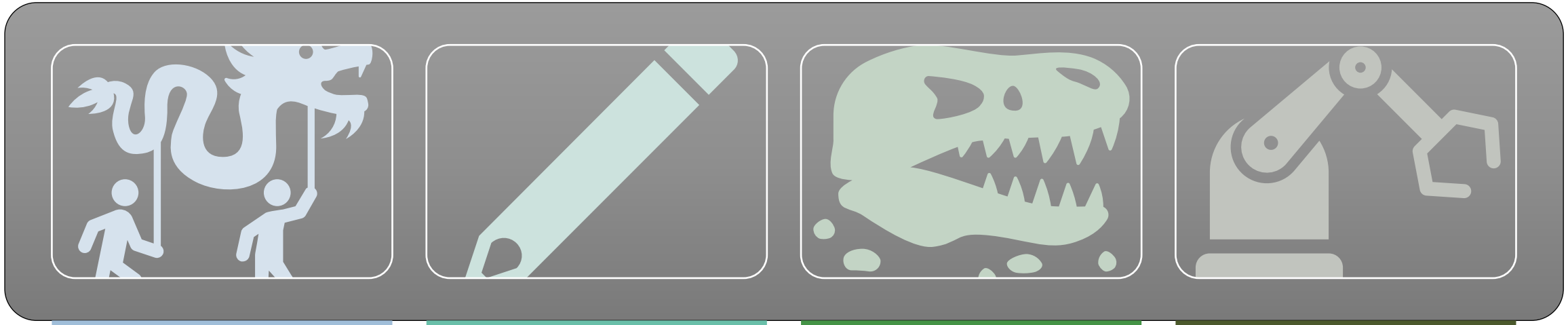
Determine your organization style, date, folder naming …

Use for all new photos you download

After using for a month, move last year’s photos to new organization style

Repeat Every Month

Backing up is a never-ending activity



Copy **photos** to the external drive

Also, copy any **edited** photos you may have stored elsewhere

Organizing and copying a **new group** of old photos

Look for ways to **automate** a step

Consider! While organizing each month, delete external & copy all

After 4 Years

Buy another external drive

Copy the **old** hard drive to the **new** hard drive

Store the **old** drive, just in case something fails

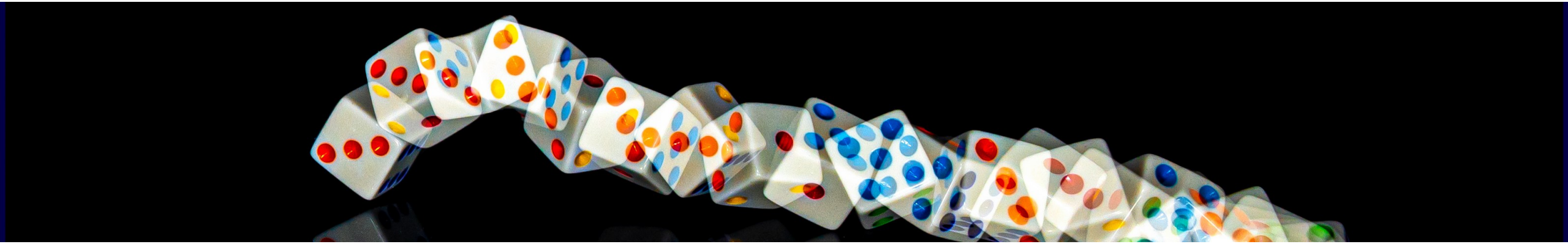
Use the **new** hard drive for your backups

Extra Effort Tip

Fire, Flood, Disaster …

1. A couple of times a year
2. Make a copy of your external drive
3. Give the copy to a person in another location
4. No password

Agenda



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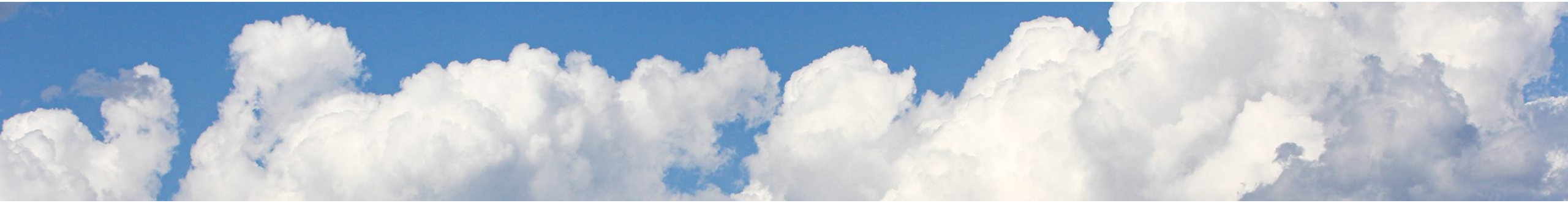
What Is the “Cloud”?

A bunch of computers accessed using the internet.



The 18 Facebook data centers are a type of “Cloud”

Data centers are physical buildings filled with computers!
As users of the ‘cloud’, we generally don’t know or care where they are located.

How big is a data center?

Let’s use Facebook’s Oregon data center.

Is it bigger than a football field?

It’s the size of 80 football fields!

Cloud Backup Services

Some space “Free”, with purchase more space when needed

Microsoft OneDrive

Apple iCloud

Google Drive

Dropbox

Adobe Creative Cloud

Amazon Photos

Amazon Prime

These are the big players. There are dozens of more choices.
All have software for Windows, macOS, iOS & Android

How to Choose a Cloud Backup Service

Questions to ask yourself

1. Is your internet speed slow?

   Then avoid cloud backup.

2. Does the free tier have enough space?

   Decide your space needs and costs.

3. Is it OK to leave your PC online for days?

   When starting it takes weeks on a fast internet.

4. Does it also work on your phone?

   Simplicity is important.

External Drive Backup or Cloud Backup?

Tradeoffs

	External Drive	**Cloud**
Security	Physical security Don’t encrypt	Password protected Share password
Availability	You must have the drive	Anywhere using internet
Cost	One-time purchase	Annual purchase (higher)
Failure	New drive every 4 years	No data loss expected
Complexity	Low	Low to Medium
Time	Keep it simple	Keep it simple

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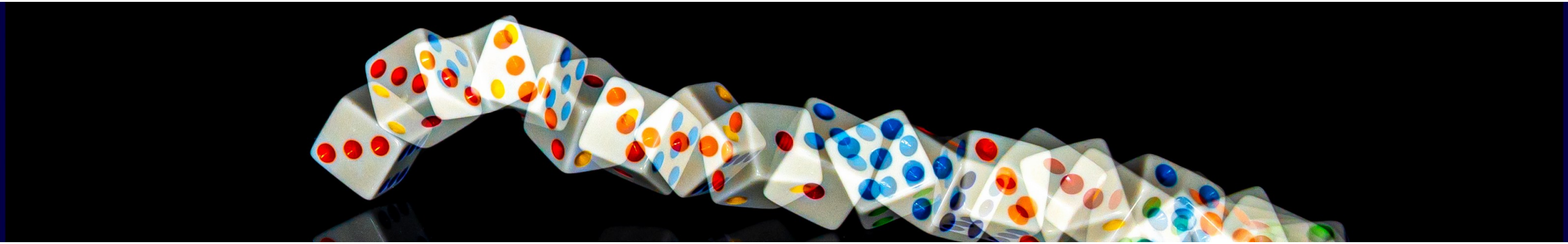

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Backup 3-2-1 Rule

Introduced by photographer Peter Krogh in 2005. Examples by Chane Cullens.

3: Create one primary backup and two copies of your data.

- PC drive
- External drive
- Safety Deposit Box, Friends house, Office or Cloud

2: Save your backups to two different types of media.

- PC drives
- External drives or Cloud

1: Keep at least one backup file offsite.

- Safety Deposit Box, Friends house, Office or Cloud

Consider

PC drive, once a month - to external drive, once a quarter - copy external drive and move offsite

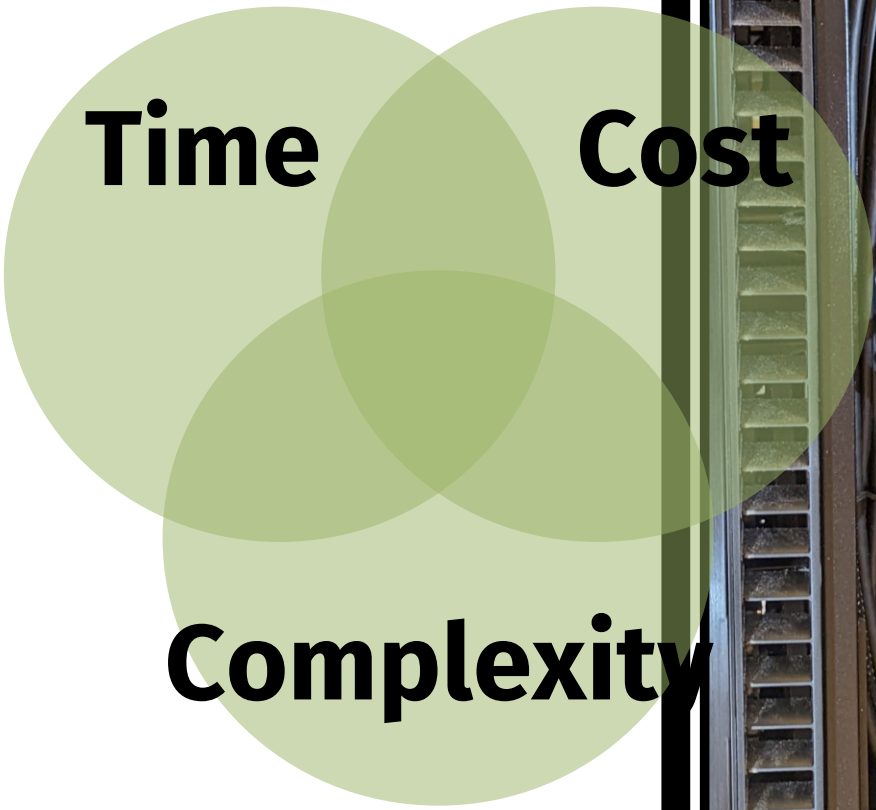
① ② ③

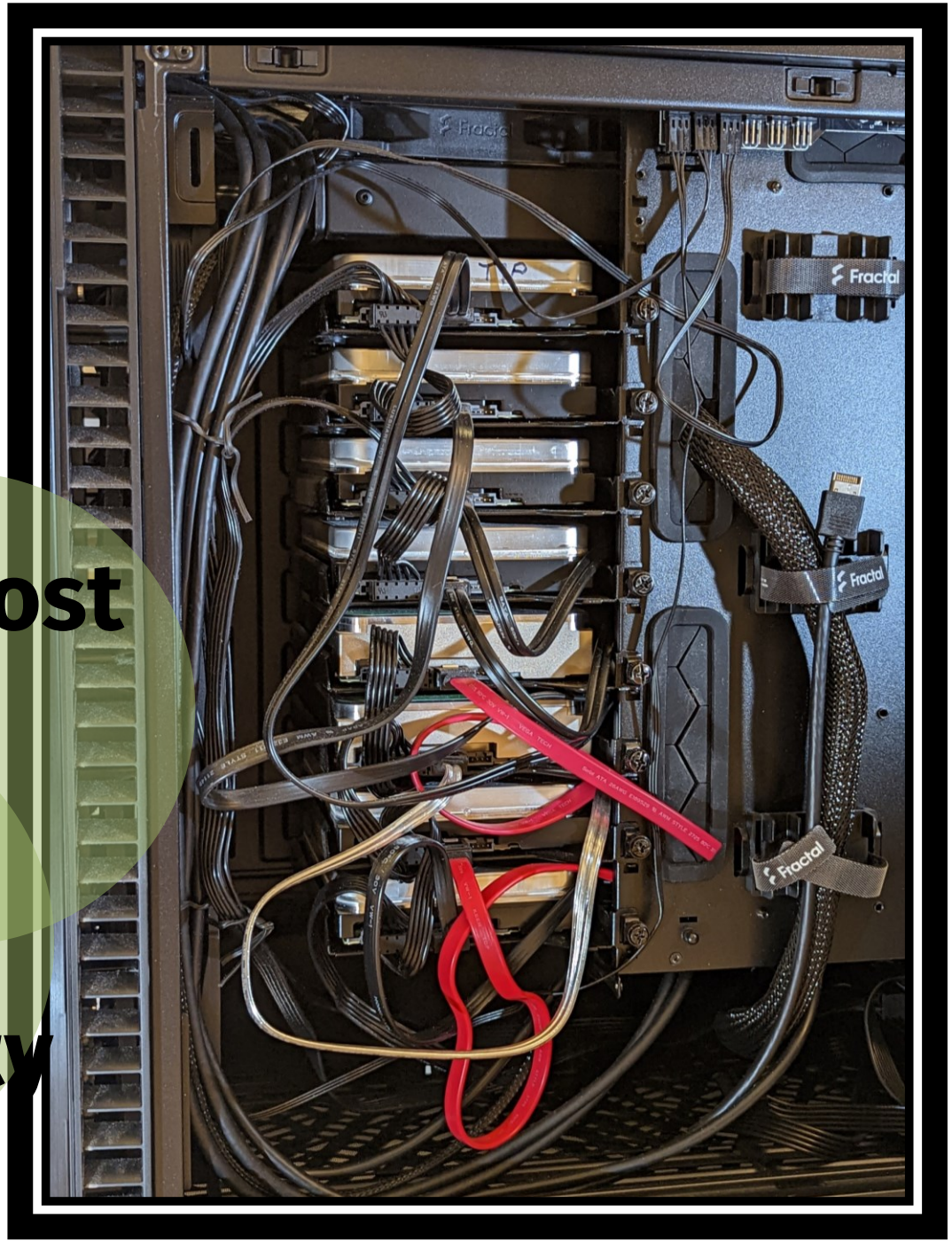
Multiple computers with multiple hard drives, plus cloud

Don’t do it!

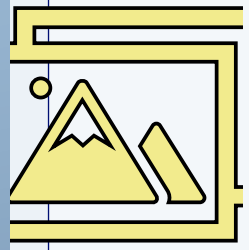
Seriously, only do it if you already know how

High in Time, Cost and Complexity



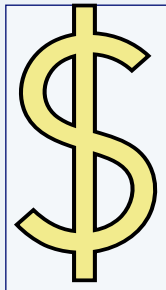


Amazon Photos Tip



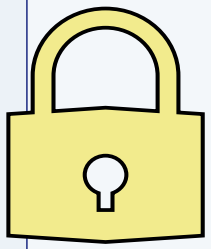
Unlimited Photos

- JPEG, RAW, Photoshop, DNG … original photos



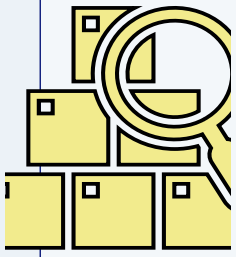
Free **if** Prime Member

- Prime membership $140 a year



Private Cloud Archive

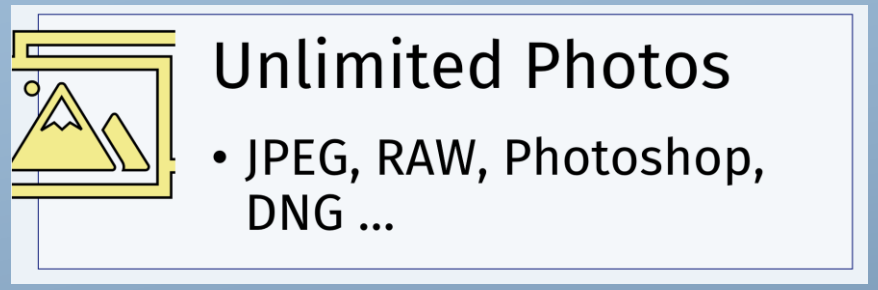
- Option to share parts



Amazing Search

- People, Place, Things …

Amazon – Unlimited Photos

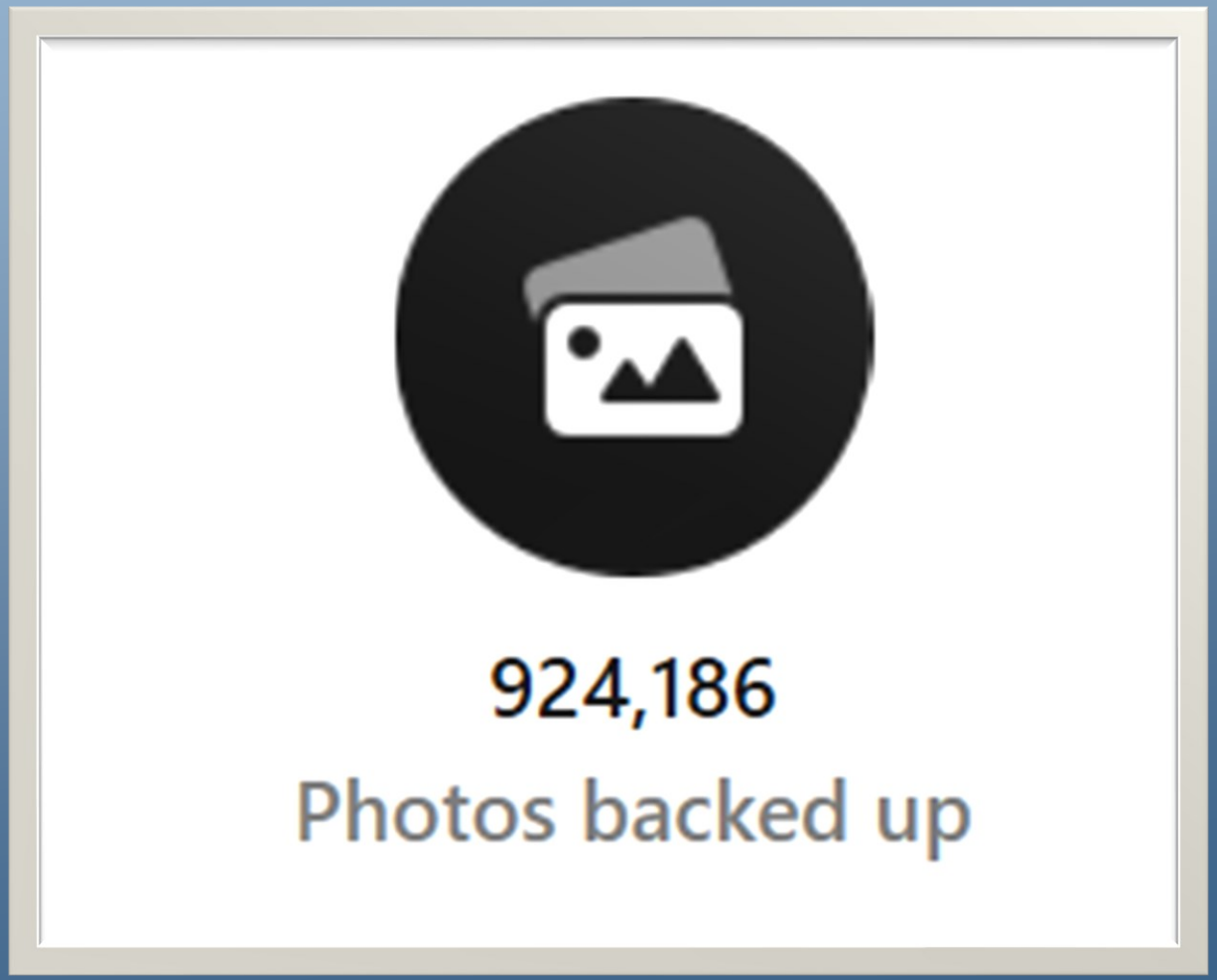


924,186 photos

Uploaded by Chane as of February 1, 2023.

Many years of uploading!

Runs in the background on a PC with a shared view that Rhonda and I both use.



Amazon – Search

Amazing Search

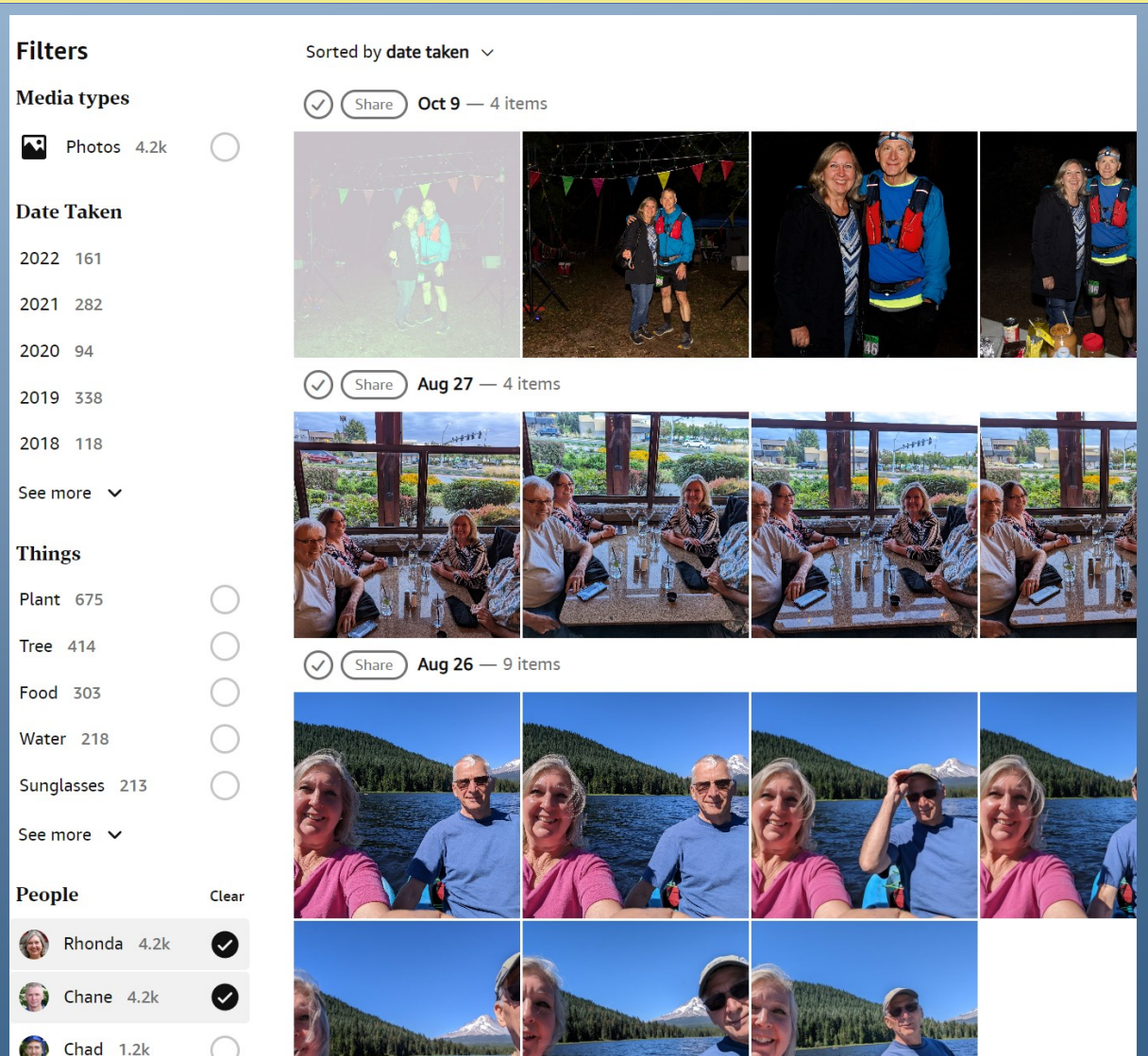
- People, Place, Things …

Search “Rhonda” and “Chane”

Amazon Photos found 4,200 photos that both of us are in.

Not perfect, but still amazing!

https://www.amazon.com/photos



Amazon – Search

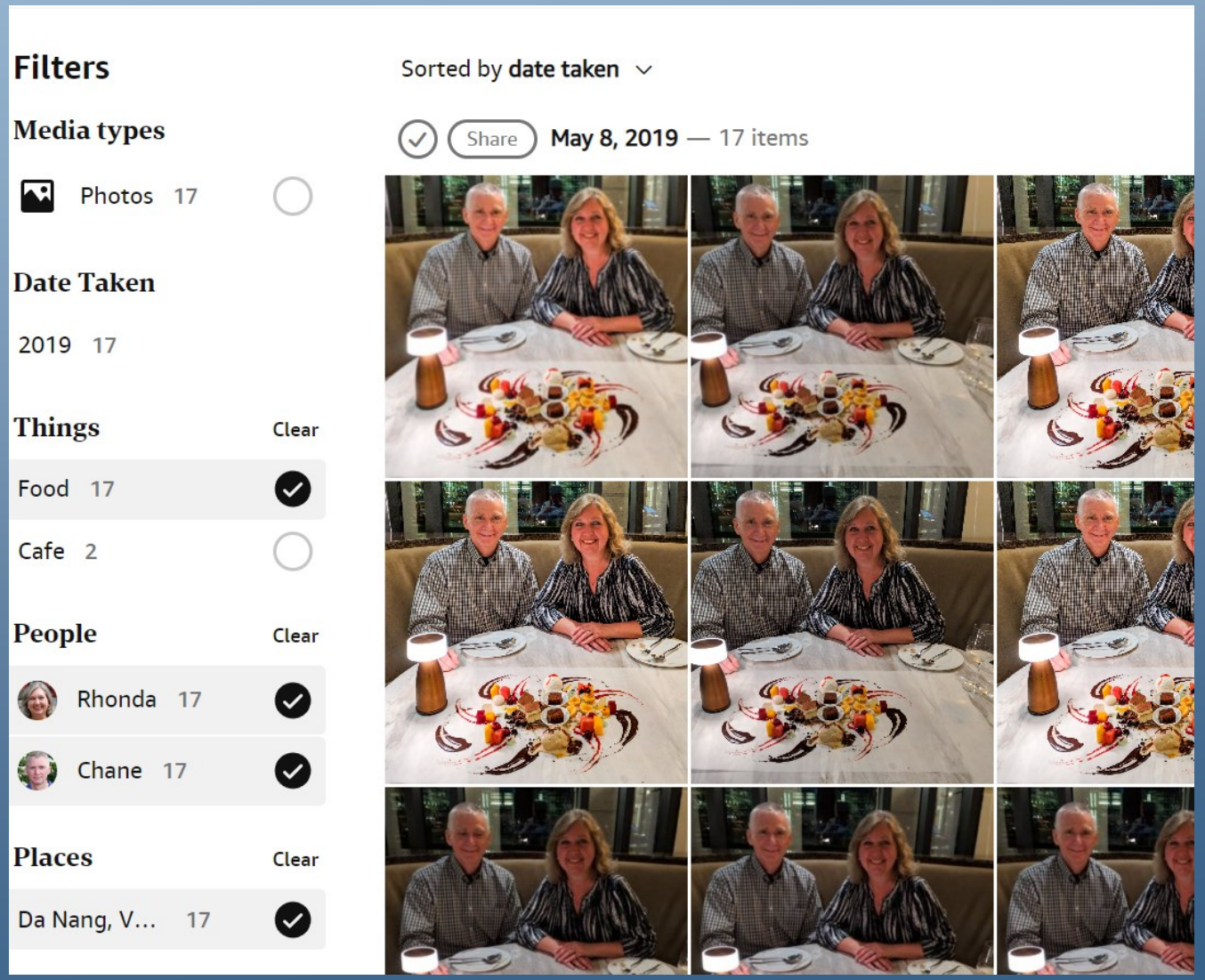
Amazing Search

- People, Place, Things …

Search for Rhonda, Chane, Food, Da Nang

Amazon Photos found 17 photos

https://www.amazon.com/photos



Free Facebook Option

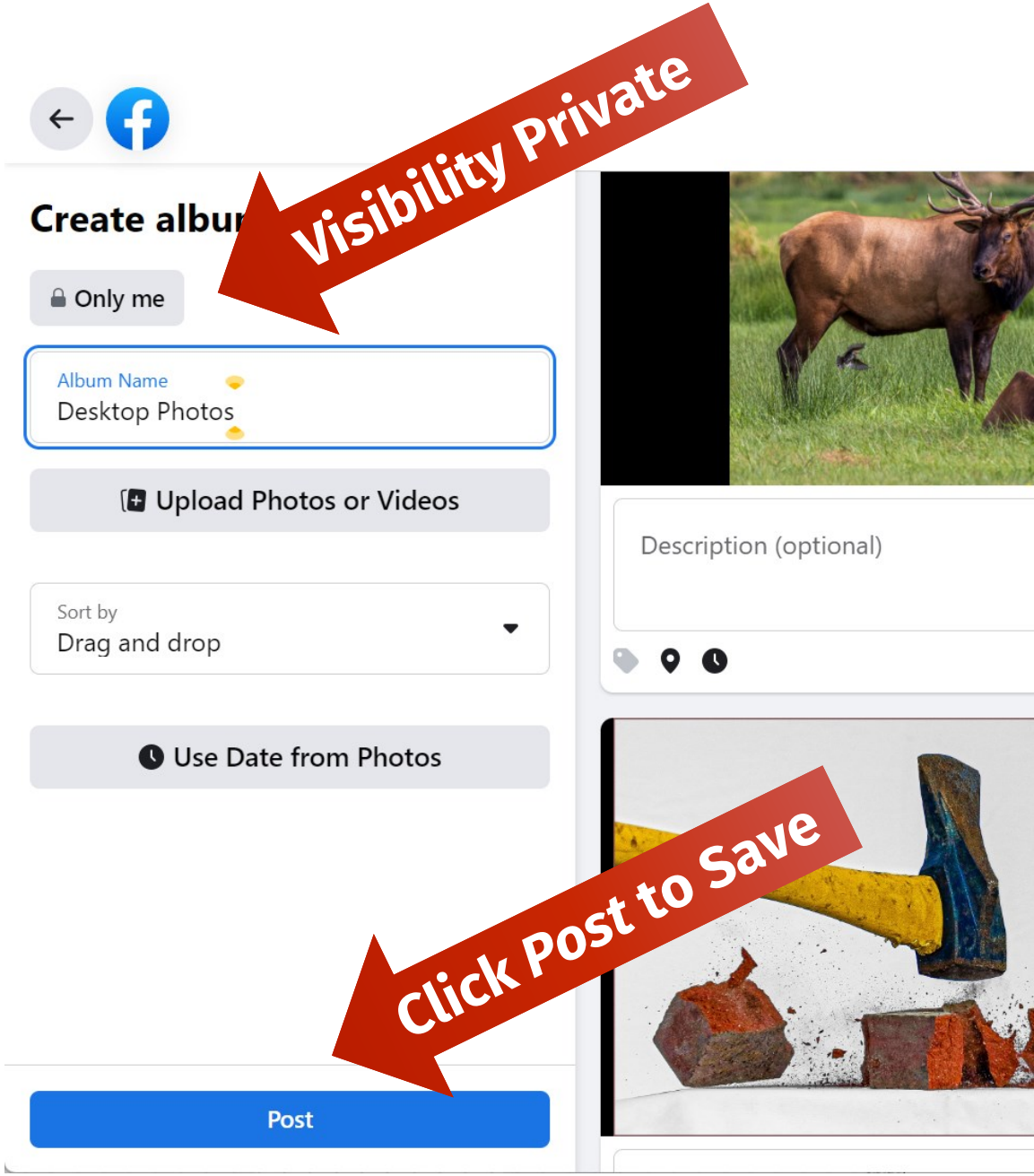
A Good Free Archive

Private Facebook albums

1,000 photos per album

JPEG files

Archive quality good (2000 x 2000 pixels)



Summary

Don’t role the dice on your treasured photo archives

1

Plan

Start small, think big

2

Find

Gather the photos for the first small step

3

Backup

Organize by date with names that help searching. Then copy to external drive

4

Share

In many ways, friends, family, clubs, books, print ...

5

Expand

Add a new small group into your organized collection folders every month