

u3a Computing Club

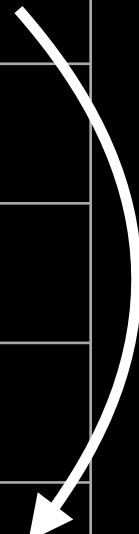
Alan Hopwood, 4 November 2021

Welcome, Safety and Admin

- Safety
 - Fire alarms & exits
 - Any Covid considerations?
- Administration
 - Register

Agenda

15:00	Welcome, Safety & Administration
15:10	Collect Current Issues and Questions
15:20	Refresh of topics
15:25	Windows 11 update
15:35	Topic: Backing Up
16:05	Discussion of Issues and Questions
16:25	AOB and Next Meeting



Current Issues and Questions

- Are there any questions or issues for discussion today?

What have members been doing?

- Any projects?
- Any new equipment?
- Any upgrades?
- Any disasters?

Windows 11 update

Extracts from PCpro article

- A welcome visual refresh and undoubtedly the most secure Windows yet,
- Windows 11 has a more coherent feel than Windows 10,
- biggest usability improvements in Windows 11 come in the way the operating system handles multiple windows
- If you're a home user, there's little reason to stick with Windows 10 if your computer supports the upgrade.
- PCs would need a TPM 2 module to run Windows 11. You'll also need a relatively modern processor.
- Microsoft has re-released its system checker, which tells anyone running Windows 10 if their system is compatible

But

- Windows 10 users who can't upgrade won't be too upset by what they're missing
- Microsoft has promised support for Windows 10 until at least 2025
- There's no compelling reason to turn your PCs up to 11 just yet.

Backing up Data

Topic Coverage

Backing Up

Scope

- Objectives for backing up
- The main strategies and options

Process

- Define the problem
- Review our data
- Consider the risks
- Decide a strategy
- Select tools etc.

Why Back Up?

Backing Up

In case of:

- Unplanned loss or corruption of data.
- An application doesn't cater for version management (automatically) and you need to revert to an earlier version of a document / file.
- Loss of access to online service (loss of user ID / password)
- Computer hardware can be replaced.
- Applications can be reinstalled.
- Your data is unique to you!

What Data Do You Store?

Backing Up

- What data do you store electronically?
- What is its value to you?
- What is the cost of replacement?
- Photographs
- Music
- Contact Information
- Passwords
- Emails
- Financial Information
- Receipts & guarantees
- Medical information
- Calendar, reminders, birthdays, anniversaries

What is your primary storage?

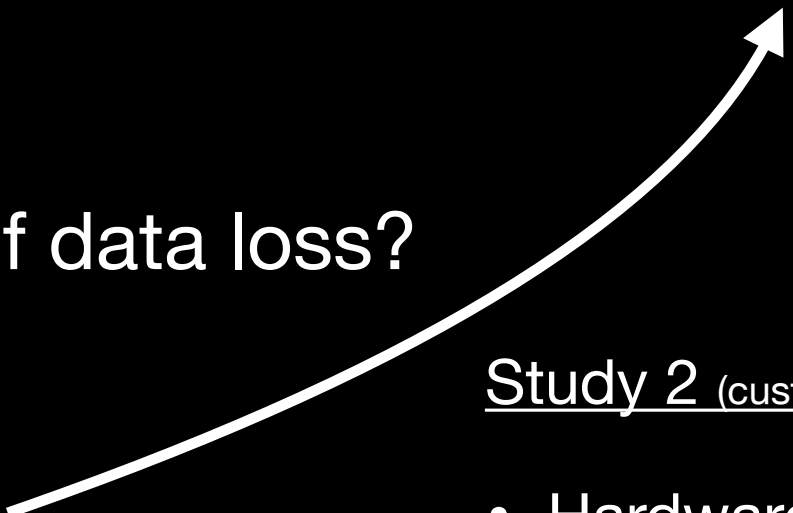
Backing Up

- Inbuilt computer storage - disc or solid state
- USB stick
- External hard drive or NAS
- Cloud Storage
- (other) Internet Service - email or website

The Risks

Backing Up

On average about 4% of hard drives fail per year



What are the causes of data loss?

Study 1

- Hardware failure: 40%
- Human error: 29%
- Software corruption: 13%
- Theft: 9%
- Computer viruses: 6%
- Hardware destruction: 3%

Study 2 (customer perception: Actual Incident)

- Hardware or system problem: 78%: 56%
- Human error: 11%: 26%
- Software corruption: 7%: 9%
- Computer viruses: 2%: 4%
- Natural disasters: 1%: 2%

(Kroll OnTrack Data Recovery Services)

(David M. Smith, Ph.D., Pepperdine University)

The Risks / Version Management

Backing Up

- Typically word processors, spreadsheets etc, retain historical versions of your documents, (check if switched on) and you can revert to an older version if you make unfortunate changes.
- Some applications do not.
- This need can be covered by
 - Manual version management -saving your own versions (with different names)
 - Regular backing up the files.

The Back up and restore process

Backing Up

- Set up
 - Select files needing backing up
 - Decide how often backing up is required
 - Put in place media to store the backup
- Back up files
 - Copy/transfer full set of files to backup storage, don't overwrite previous backup.
 - (if using incremental backups) Copy/transfer file changes to backup storage
 - for version management, back up and label current version of document/system after significant changes.
- Validate backup - periodically
 - Check that the backup files can be read.
 - Check that the backup files are correct.
- Restore files after data loss
 - Transfer backup files back to computer
 - Validate

Considerations

Backing Up

- There are different types of backup

Full Backups: Entire data set, regardless of any previous backups or circumstances.



Differential Backups: Additions and alterations since the most recent full backup.



Incremental Backups: Additions and alterations since the most recent incremental backup.



Strategies

Backing Up

- Back up manually
 - to external device
 - to cloud storage
- Use “automatic” utility to back up
 - to external device
 - to cloud storage
- Hold data in resilient store (cloud service)
- Don't keep data of value electronically

There are of course variations and hybrid strategies!

Back up Manually

Backing Up

- + Tailor back up to your needs (file selection, frequency)
- + Supports version management
- + Easy validation of backup
- + Low volumes of data
- Laborious
- Subject to human error

To external device (USB stick, hard drive, NAS etc.)

- Does not protect against physical risks: fire, theft, lightning.

To cloud service

- More expensive.

Use Automatic Utility

Backing Up

- + After setup, minimal intervention required
- + Supports version management
- + Likely to have higher frequency of backing up
- Non-automatic validation of backup essential (not every time but...)
- Higher volumes of data

To external device (USB stick, hard drive, NAS etc.)

- Does not protect against physical risks: fire, theft, lightning.

To cloud service

- More expensive.

Hold Data in Resilient (Cloud) Storage

Backing Up

- + Simple solution / no action required
- + No validation required
- + Protects against local physical threats
- + Can access your data from multiple devices
- higher cost
- Does not help with version management.

What about email, websites

Backing up

- Email may be stored on your computer or on the mail server.
- For data stored on internet services:
 - There will be a back up regime (but check what it is)
 - Unlikely to allow restore to prior versions in case of (your) human error
 - Usual answer is to back up to your Computer if required.

Common Errors

Backing Up

- Neglecting to take a backup
- Not taking backups sufficiently frequently
- Saving the backup to the same system as the original files
- Not testing the backup
- Not being able to identify the correct backup

Windows

Backing Up

- Windows OneDrive can be used as a resilient store for files.
- Windows has a built in backup & Restore utility called *File History*
 - Can set folders to back up, destination drive, frequency of back up, retention time
 - Considered by some to be inflexible and lacking functionality
- Plenty of alternatives backup apps available (this selection from PCWorld)
 - Aconis True Image 2021
 - ToDo Backup Home 10.5
 - Backupper 6 Standard (free version available)
- And alternatives for online backup
 - IDrive
 - Backblaze
 - Carbonite Safe

Mac

Backing Up

- Apple's iCloud is its resilient store for files.
- Macs have a backup & Restore utility called *Time Machine*
 - Time Machine will automatically make hourly backups for the past 24 hours, daily backups for the past month and weekly backups for all previous months. The oldest backups will be deleted when your backup disk is full.
 - Considered to be a good solution for most users
- Alternatives backup apps available (this selection from PCWorld), but required?
 - Aconis True Image 2021
 - Get Backup Pro (v3)
 - ChronoSync
- And alternatives for online backup
 - IDrive
 - Backblaze
 - Carbonite Safe

Android

Backing Up

- Google has built a backup facility into Android using Google Drive
 - By using your Google Account, your data and settings are automatically backed up to your Google Drive storage
 - Can select which apps are backed up.
 - Can view and edit backup data
- Generally backup apps are not an advantage.
- Cloud alternatives are worth considering including:
 - Amazon Drive
 - Dropbox
 - Microsoft OneDrive

iPad (and iPhone)

Backing Up

- Apple's iCloud is its resilient store for files.
- iPads & iPhones are set up to use iCloud for backing up.
- Can backup to a Mac or PC using iTunes on the computer.
- alternatives for online backup
 - IDrive
 - Acronis (best security)
 - BigMind Home (for photo enthusiast)

Questions & Clarifications

Backing Up

- Any Questions?

AOB

- AoB: Would anyone like to raise anything?
- Meeting Follow up - notes etc.
- Meeting review: More, Less, Continue?

Thank You