

*Challenges
in
Digital
Archeology*

*A very brief walk around some of
the problems associated with
researching Internet history.*

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What's the challenge?

Problems I've encountered whilst working on UK Internet history recently:

- ◆ Failing electronics.
- ◆ Obsolete devices and interfaces.
- ◆ Physical media problems.

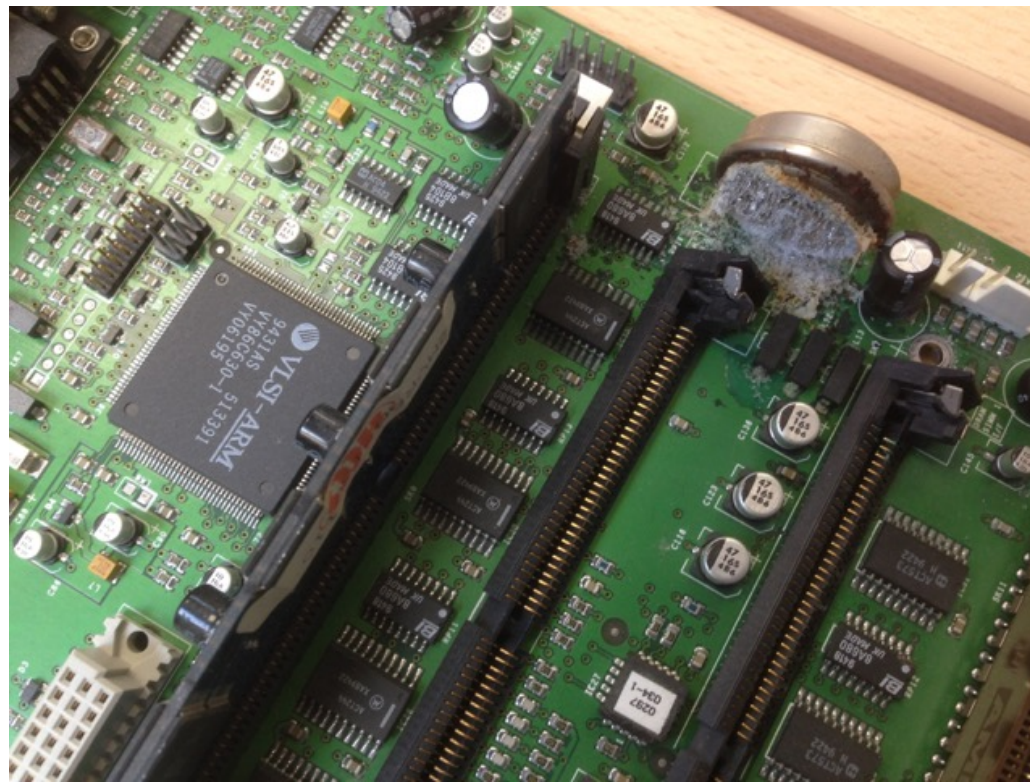
Time isn't kind to the electronics

Power supply capacitors dry out.
Can cause PSU to blow up equipment.



Time isn't kind to the electronics

PCB mounted batteries leak...
destroying circuits and nearby components



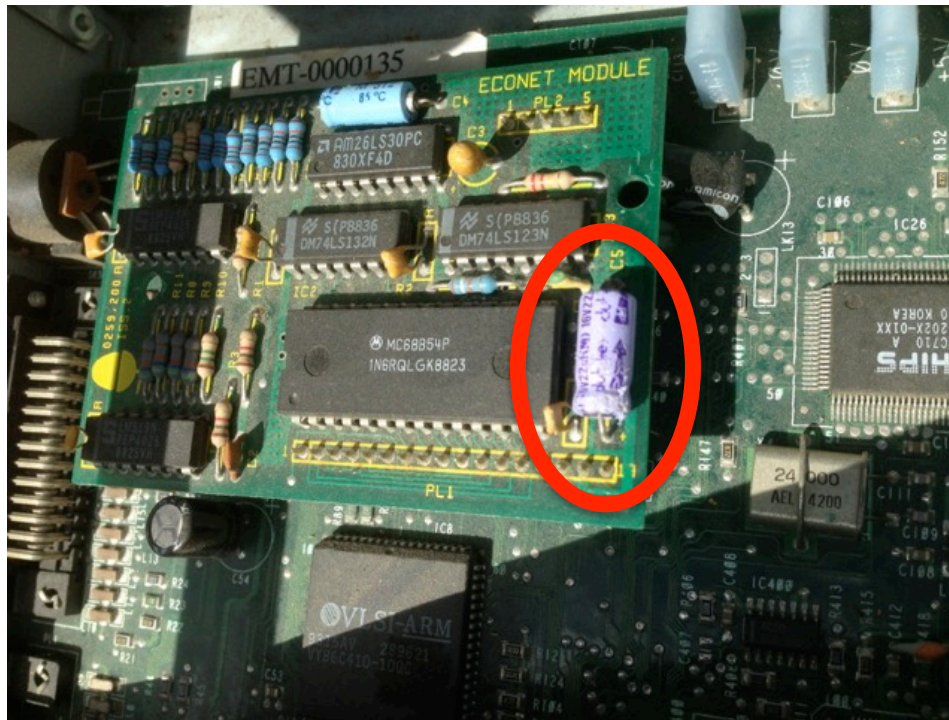
Time isn't kind to the electronics

Mice can move into old hardware.
And leave gifts on your SCSI bus!



Time isn't kind to the electronics

The same mice needed to eat as well.
Capacitors on old network cards are tasty!



Hardware is very quickly old too

Want to connect an old device to the network?
Do you have a port that will do 10M half-duplex?



My PC doesn't have that port

Need an interface card for some old drive?
SCSI – great that's standard. But PCI!



How do I read these?

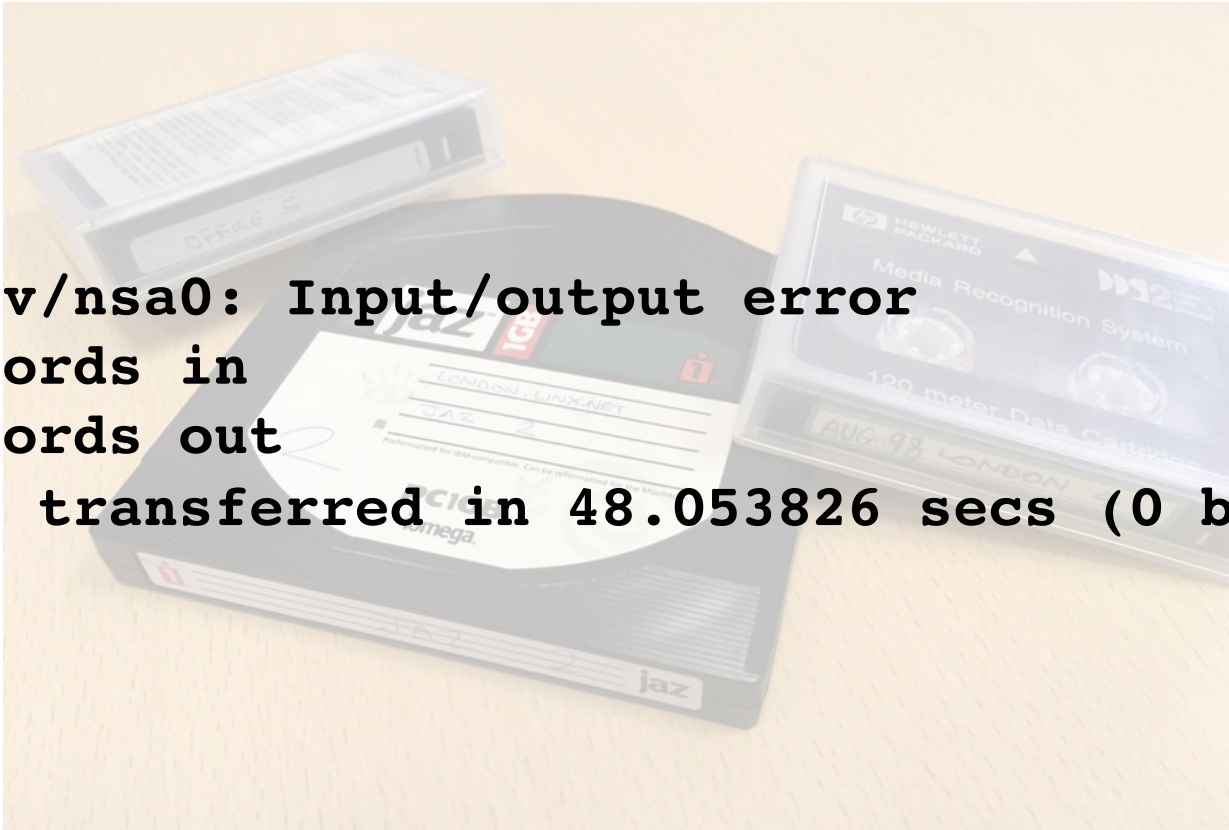
DDS2 won't work in a modern DAT drive.
Where did Jaz drives go?



Physical media degrades...

Great. Found compatible hardware, but...

```
dd: /dev/nsa0: Input/output error
0+0 records in
0+0 records out
0 bytes transferred in 48.053826 secs (0 bytes/sec)
```

A photograph showing three types of physical storage media: a Jaz floppy disk, a 120-meter Data Card, and a CD-ROM. The Jaz floppy disk is in the foreground, with a label that reads 'LONDON-LINKNET' and 'JAZ 2'. The 120-meter Data Card is to the right, with a label that reads 'AUG-98 LONDON'. The CD-ROM is in the background, with a label that reads 'OFFICE 5'.

Is there any hope?

One thing that was both usable and reliable was an old IBM 1G hard drive from 1994.

It is SCSI-1 – very slow, but still works with a modern SCSI interface.

Hard drives are likely to be better than tapes for long term storage.

Is there any hope?

Try to use the lowest common denominator for things like filesystems (eg: FAT32) or well known formats like tar/zip.

Avoid proprietary technology.

Make image files of discs.

Keep data live on up-to-date media.

Questions?



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