

# DPC UNCONFERENCE 2023: DISCUSSIONS

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COLLECTIONS SERVICES  
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# Digital Preservation Storage Strategies: 3-2-1 vs 'the Cloud'

# PRES STORAGE: 3-2-1 VS THE CLOUD

## 1. Standard practices & compliance requirements

- **3-2-1 backup rule** (3 copies, 2 different media types, 1 copy offsite)
- **Legislation & mandates** – data localisation & residency

## 2. Storage Options

- **On-prem** – onsite storage including tape storage (LTO)
- **Cloud** – multi-national companies (AWS, Azure, Google Cloud etc.) & tenancy arrangements
- **Local Cloud**
- **Hybrid** (or other solutions...)

## 3. Considerations & concerns

- What is good practice now? (Incl. monitoring, recovery from failure etc.)
- Supplier/platform lock-in & data egress between vendors
- Sustainability – calculating environmental impact

Data Centre Server rack with hard drive modules removed, made by Delta Electronics, Inc, China, for Facebook, Inc., Menlo Park, California, USA, 2014. Used in Facebook's Data Centre in Lulea, Sweden, located above the Arctic Circle. [CC BY-NC-SA 4.0](https://collection.sciencemuseumgroup.org.uk/objects/co8567304/)  
<https://collection.sciencemuseumgroup.org.uk/objects/co8567304/>



# RESOURCES

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**Digital Preservation &  
Cybersecurity:  
happily coexisting**



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Sounds like a dream for what we're facing in [#DigiPres](#) [#AVPres](#) [#DigitalCollections](#) [#DigitalArchiving](#).

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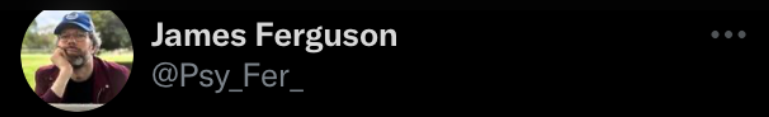
**James Ferguson** @Psy\_Fer\_ · 3/3/22

I keep seeing IT departments working against bioinformaticians. It took a while, but our IT now works with us, and because of this, our security and productivity has increased. I encourage everyone involved to foster an ac...

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I keep seeing IT departments working against bioinformaticians. It took a while, but our IT now works with us, and because of this, our security and productivity has increased. I encourage everyone involved to foster an active and productive culture between IT and Bioinfs

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**James Ferguson** @Psy\_Fer\_ · 3/3/22

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The last thing you want, is a bunch of smart people trying to get around your silly "security" measures so they can install samtools. That's bad for everyone.

1 2 35
- 

**James Ferguson** @Psy\_Fer\_ · 3/3/22

I was breaking windows "security" when I was 10 so I could play games on my mother's work laptop. User security is mostly just obstructive and is a poor method to rely on for institute security. When people break it, they aren't going to tell you if something goes bad either

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- 

**James Ferguson** @Psy\_Fer\_ · 3/3/22

What you want, are people that trust each other, and work together to make better systems and processes. Yea, it's more work, but once it's set up, things are just so nice for everyone.

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# CYBERSECURITY & DIGI PRES

## 1. Standards & Compliance

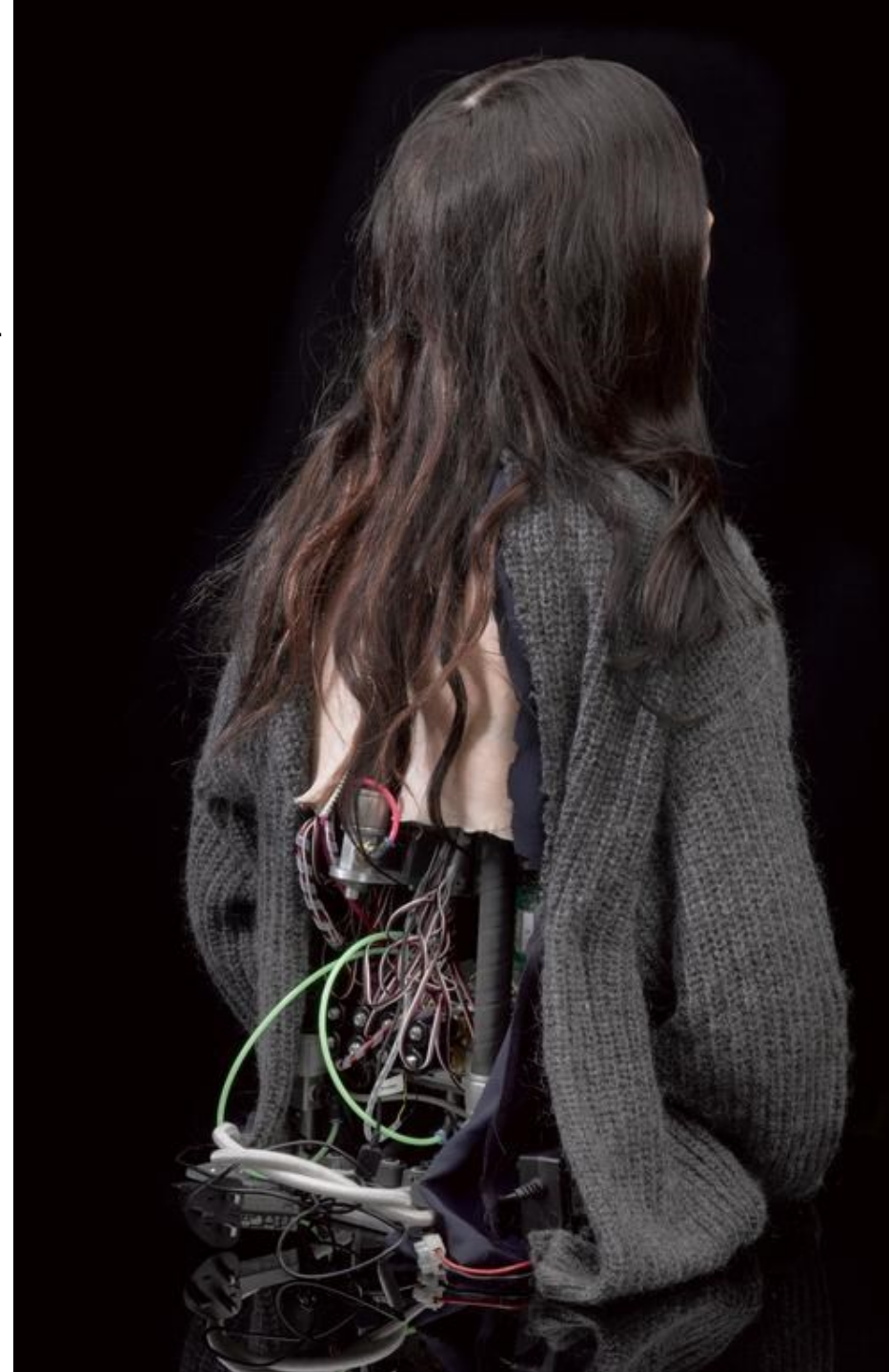
- **Accreditation & Compliance** – 27001, Cyber Essentials (CE), CE Plus, NIST etc.
- **Certification** – Trusted Digital Repository (TDR)

## 2. Cybersecurity Basics

- **5 controls** (Firewalls, secure configuration, access controls, malware, patching)
- **Rendering legacy files** (requiring legacy software & infrastructures)
- **People**
- **Digital Preservation equivalent** (for Cybersecurity & ICT colleagues)

## 3. Knowledge & Skills

- **Digital preservationists' knowledge** of cybersecurity (& vice versa)
- **Upskilling** (short-courses etc.)
- **Shortage** of cybersecurity professionals



# RESOURCES

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