Digital Preservation and the Climate Emergency

Focus on Climate Action:
• DPC Climate Action Plan
• Climate Actions (not all good)

Focus on Emissions:
• DP and Emissions
• Emissions and DP

Focus on Everything:
• DP and Everything Else
• What is to be done?
Climate Action Plan ...
“the series of **managed activities** necessary to ensure **continued access** to digital materials for **as long as necessary**... beyond the limits of media **degradation**, technical **obsolescence** or organizational **change**.”

(Digital Preservation Handbook)

DP is a sustainability challenge. We cannot address the climate emergency without (some) digital preservation.

William Kilbride
John McMillan
Climate Action Plan: DPC as climate action laboratory

... there is a growing demand for advice, standards and training which have always been core services within the DPC’s strategic plan. Moreover, by modelling good practice ... we are better positioned as advocates for change.

https://www.dpconline.org/about/dpcpolicies

https://www.dpconline.org/docman/about-1/dpc-policies-and-forms/3094-dpc0923g-climate-action-plan-draft
Climate Actions (not all good)
Low emission zones

Bomb attack on Ulez camera 'grotesquely irresponsible', says London mayor

Blast in Sidcup not being treated as terrorism but counter-terror officers are leading investigation

Peter Walker Deputy political editor
Fri 8 Dec 2023 12.55 GMT

Forensics check to gather clues to homemade bomb

The London mayor has condemned the attack in which a homemade bomb was thrown.

William Kilbride
John McMillan
DP and emissions ...
Focus on Emissions

CO$_2$ CH$_4$ N$_2$O HFCs PFCs SF$_6$
Calculating Emissions in DP

- **Scope 1**: Direct emissions from the combustion of fuel in assets that a company operates: company-owned cars, diesel generators, gas boilers and air-conditioning leaks.
- **Scope 2**: Indirect emissions from the generation of energy purchased from a utility provider, such as heating, cooling, steam, and electricity.
- **Scope 3**: All indirect greenhouse gas emissions that do not fall under scope 2 - upstream and downstream.
  - Upstream emissions from goods and services, business travel, utilities supplied but not purchased
  - Downstream emissions from goods or services which are sold
Focus on Scope Three

Upstream
★ 1. Contracted Goods and services
★ 2. Capital goods
★ 3. Fuel or energy (not in scope 1 or 2)
★ 4. Upstream shipping and distribution
★ 5. Waste generated in operations
★ 6. Business travel
★ 7. Employee commuting
★ 8. Upstream leased assets

Downstream
9. Downstream shipping and distribution
10. Processing of sold products
11. Use of sold products
12. End-of-life treatment of sold products
13. Downstream leased assets
14. Franchises
★ 15. Investments

Digital Preservation Shows Up Here ★
Focus on Business Travel

<table>
<thead>
<tr>
<th>Month</th>
<th>Travel</th>
<th>Method</th>
</tr>
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<tbody>
<tr>
<td>Aug / Sept 23</td>
<td>Business Travel</td>
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Travel Carbon Calculator.

The Sustainable Climate Impact Fund (SCIF) prioritises projects that deliver health and socio-economic benefits to communities as well as tackling climate change. Use the SCIF Travel carbon calculator to work out your travel emissions in two simple steps. Then see how SCIF helps you offset unavoidable emissions in an ethical and responsible way.

Journey 1

Transport: Select your option
Departure: Where from?
Arrival: Where to?
Passengers: 1

Add journey

Results

Offset your carbon through SCIF

Emissions per 1000km

Transport:

1. Add journey(s)
2. Calculate emissions
Whose emissions are they any way

<table>
<thead>
<tr>
<th>Month</th>
<th>Travel</th>
<th>Method</th>
<th>Metric tonnes of CO2</th>
<th>Suggested Offset*</th>
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Zoom Meetings

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<th>Month</th>
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<th>Total Minutes</th>
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<td>864</td>
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Quarter 1 Draft Totals

|             | TOTAL          |                    |               | 9.7988               | £284.49          |
Point is: DP is mostly scope three

Scope 3 been a lower priority (so far)
Trickier to calculate
Harder to control
Boundaries less clear
Steady State Paradox in DP

Driving down emissions in the context of exponential growth (standing still is not net zero)

We own the emissions side of the equation.
We don’t own the data growth side.

William Kilbride
John McMillan

Source: DCC's Data Age 2025 study, sponsored by Seagate
Emissions and DP ...
DP is about keeping data (and not)

Digital detox and clean up
Crowd-sourcing appraisal?
Not size zero
DP Assumptions
Accessible
Authenticated
Normalized
Uncompressed
Trusted

What if we shake up these assumptions?
Point is: Climate Crisis is Global Scale

Will affect everyone, everywhere
Will affect every aspect of our lives
Will affect professional practice too
Focus on Everything
Not just emissions

E-waste
Competition for Rare Earth Elements
Competition for Water
Exploitative Labour Practices
Sustainable Development

Not just about emissions
Not just environment

poverty, hunger, health, education, gender, water, energy, growth, industry, equality, communities, consumption, climate, marine ecologies, land, peace, partnership

Digital preservation does not progress in a vacuum
Social and economic forces and DP: From owning to renting

Buy-to-let example
• Financialization
• Housing crisis
• Dislocation and displacement

Digital Rent-Seeking Behaviours
• IPR as license as rent
• Platform as a service
HAS KILBRIDE LOST THE RUN OF HIMSELF?
Here we are

DP Designed For
Structured and unstructured data
Born digital and digitised content
From Selfie stick to space probe

Office Documents
Digital Photographs
Digital Video and Audio
Grey literature
CAD Plans
Geo Mapping and GIS
Transactional Records
Spreadsheets
eBooks and eJournals
Email
Web pages
Laser Scans
MRI and CT scans
Databases
Financial data
Scientific outputs
SMS Text
WhatsApp
...

William Kilbride
John McMillan

www.dpconline.org
Cloud Computing

Rent-seeking behaviors
AKA Precarity as a Service
Meanwhile in Silicon Valley ...

Nook | EverAlbum | Any
GoogleCode | Flickr (free) | Other
GeoCities | Google Hangouts | Platform
GoogleWave | Duplex | Here
knol | BlipFoto | ...
Yahoo 360 | BEBO |
Yahoo Mail Classic | MySpace |
del.icio.us | Expeditions |
MyBlogLog | Enhanced404 |
Flash | JamBoard (soon) |

Deprecated, Discontinued and Deleted:
DP is a response to a certain kind of capitalism

William Kilbride
John McMillan

www.dpconline.org
What is to be done?
Bland Conclusion

DP is a sustainability challenge.

We cannot address digital preservation without (some) action on the climate emergency.

We cannot address the climate emergency without (some) action on digital preservation.
What is to be done?

DPC thinks in 5-year horizons:

- DPC sustainability challenge 2022-27
- DPC Net Zero 2027-32?
- DP Net Zero 2032-37?
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