A new Guidance Note on Environmental Impact

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26th March 2024

Guidance Notes

"The DPC Technology Watch Guidance Notes series provides short briefings on tightly defined digital preservation topics. DPC Guidance Notes are designed to be bite-sized papers that might contain information about a problem, a solution, or a particular implementation of digital preservation."

(Guidelines for Authors, Reviewers and Editors)

Search for an author

- Environmental change affects us all.
- A growing body of publications:
 - E.g. "<u>Toward Environmentally Sustainable Digital</u> <u>Preservation</u>", by Pendergrass, Keith L, Walker Samson, Tim Walsh, and Laura Alagna (2019)
- And events:
 - E.g. <u>Environmentally sustainable digital preservation</u> <u>– moving from theory to practice</u> (DPC webinar, 2021)



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A Green New Deal for Archives

Eira Tansey

July 2023. 50 pp. (electronic only) CLIR pub 185

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A Green New Deal for Archives

Archivists preserve the records of the past for the future through their stewardship of archives. As the world moves toward a future that looks increasingly uncertain, frightening, and chaotic because of the impacts of climate change, preservation of the historical record is essential both for continuity of cultural memory and civil society, and for documentation of the ongoing permanent alteration of natural and human environments. A Green New Deal for Archives tackles the pressing challenges faced by archives globally, including the immediate and long-term risks associated with climate change and inadequate staffing. Drawing inspiration from the U.S. New Deal of the Great Depression era, author Eira Tansey proposes a public policy program that intertwines both challenges and offers a blueprint for their resolution.

Introduction and context

- Despite the growth in renewable energy sources, the majority of energy used still comes from non-renewable sources.
- Digital preservation is focussed on the long-term.
 - Climate change creates uncertainty.
- Developing a Climate Action Plan can help organizations prepare.

Measuring Environmental Impact

- Measuring the impact of digital preservation isn't straightforward
 - Difficult to measure the volume of preserved content
 - Harder still, when we include copies, DP actions etc.
- Greenhouse Gas Protocols (Scope 1-) emissions categories
 - DP = mainly Scope 3(?)
 - E.g. employee commuting, business travel, purchased goods, investments etc.

Affordable energy and equipment

- DP at scale possible because energy and equipment is relatively affordable
 - Renewable energy becoming more affordable.
- But increasing *invisible* costs
 - Mining of rare earth materials
 - Volume of water required for data centres
 - More waste equipment.

Electric grid stability

- DP and access to electronic records relies upon a stable electricity grid
 - Creates additional environmental costs and demands
 -which increase the more we become reliant on them.

Adequate staffing

- Staffing:
 - Rising production/maintenance costs may mean fewer staff
 - Impact of staff getting to/from work, or working from home
 - Physical challenges to staff arising from environmental change (forest fires, floods etc.).

Organizational continuity

- DP should be able to survive "organizational change"
 - restructuring, changing strategy, sale etc.
- But what about
 - forced relocation due to environmental change
 - constraints on energy use
 - extending the usable lifespan of equipment etc.?

Growth and permanence

- DP "growth" normally measured in TBs/PBs of storage
 - Says nothing about the (re-use) value of preserved content.
 - May encourage a "growth is good" mentality.
- Should we revisit ideas of
 - Acceptable loss?
 - Graceful degradation?

The Importance of Selection

- We should be more **selective** in what we preserve
 - Consider resources and energy required for DP
 - Long-term preservation shouldn't mean permanent preservation
 - Selection and retention policies should be living decision making frameworks (adapting to change)