Thinking the unthinkable: considering and managing risk in an uncertain world

DPC: Risk Management
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Living with risk

- Digital preservation is inherently about managing risk
- How do we quantify it?
- Biggest risk is not capturing in the first place
- Ensuring everyone plays an active role in preservation

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A little bit about us...

- Leading UK research intensive University
- National collecting centre for historical records of Trades Unions
- Archival collections relating to political and pressure groups
- Wide range of formats and content types



A good starting point

- DPC RAM – includes sections on risks to collections
- Bitstream and Content Preservation: a focus on integrity and usability
- Digital Asset Registers – give you control and the ability to prioritise

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DiAGRAM and CHARM

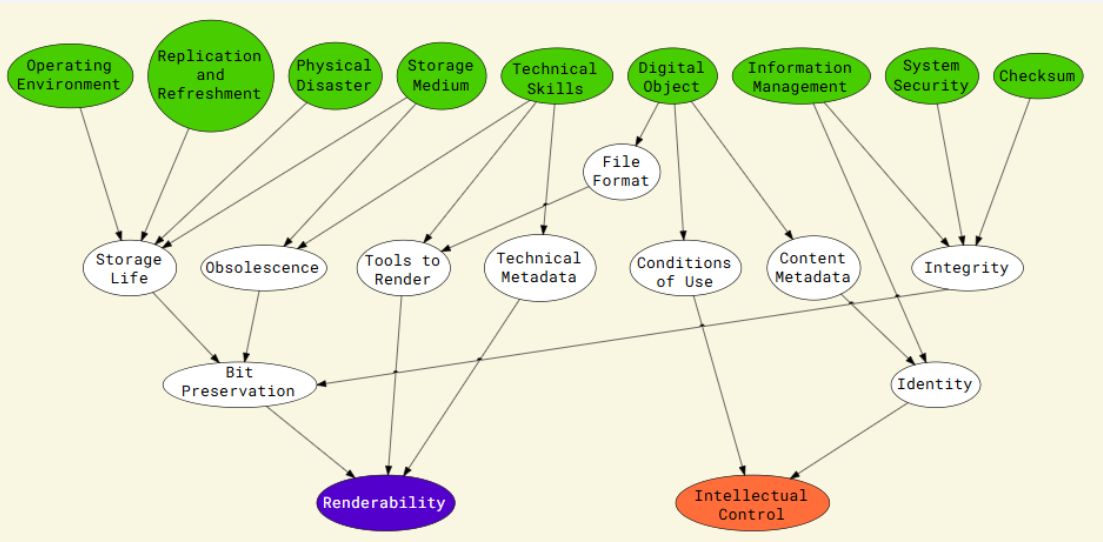
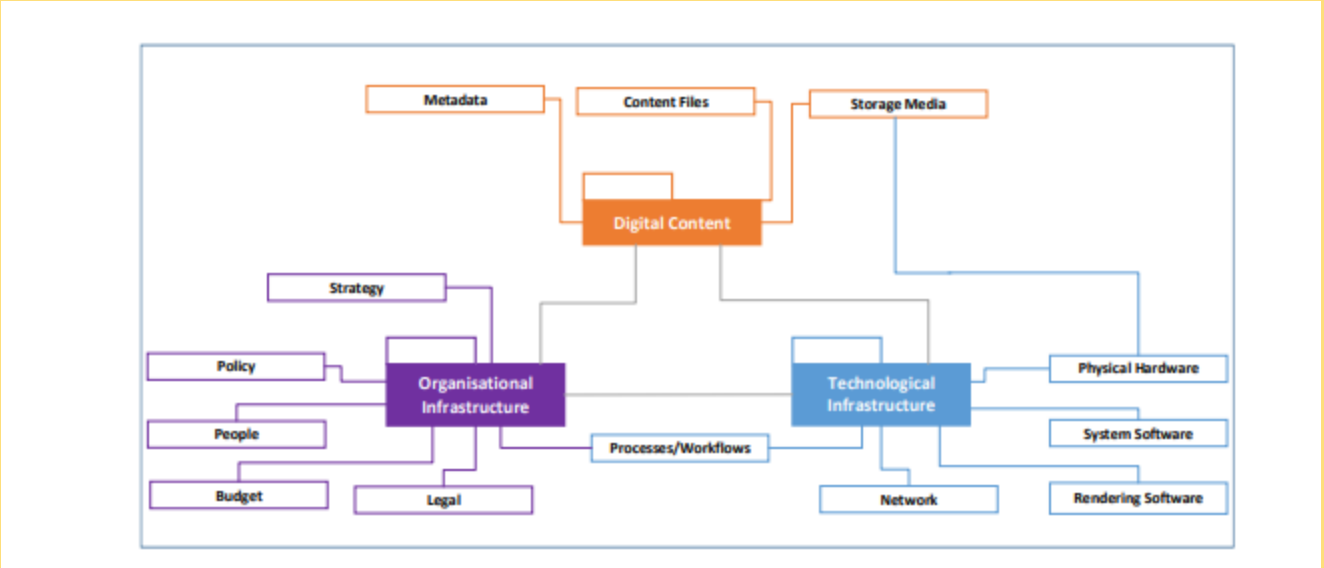


DiAGRAM model

https://diagram.nationalarchives.gov.uk



CHARM model

https://discovery.dundee.ac.uk/en/studentTheses/disentangling-digital-preservation-risk/

A closer look at CHARM

- Uses ISO 31000 as a basis
- Definition of risk as “the effect of uncertainty on objectives”
- Framed within the context of digital preservation.
- Identifying risk sources
- Identifying uncertainty and mitigating a negative outcome

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A closer look at CHARM

Digital Content	Organisational Infrastructure	Technological Infrastructure
Content File(s)	Strategy	System software
Storage Media	Policy	Rendering software
Metadata	People	Physical hardware
	Budget	Network
	Legal	Processes & Workflows
	Processes & Workflows	

A closer look at CHARM

Impact						
	Acute (5)	5	10	15	20	25
	Major (4)	4	8	12	16	20
	Moderate (3)	3	6	9	12	15
	Minor (2)	2	4	6	8	10
	Almost None (1)	1	2	3	4	5
		Rare (1)	Unlikely (2)	Possible (3)	Likely (4)	Almost Certain (5)
		Likelihood				

17 to 25	Very High	Action urgent
11 to 16	High	Action required
6 to 10	Moderate	Action preferred
1 to 5	Low	Acceptable

What did we find?

- Files remain on storage media for longer than the expected lifespan of the media/hardware needed to access them
- Files and metadata cannot be extracted/processed properly because the appropriate software is not available
- Files cannot be accessed because the appropriate rendering software is not available

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What did we find?

- Material held on obsolete carriers were at risk
- Policies, training and documentation needed attention
- Lack of necessary software/hardware to deal with obsolete formats

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What next?

- A framework to share more widely across the organisation
- Rerunning the assessment after 12 months
- Also highlighted what the “blockers” were
- Creating actions to move things forward



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Conclusions

- Embed as part of the planning process
- Integrate with broader organisational policy
- More work needed on the impact of AI



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