

A grayscale photograph of a person with short hair, seen from behind, sitting at a desk. On the desk is a computer monitor displaying a website, a desk lamp, and a microscope. The person appears to be working or studying.

Finnish Picture Archives seminar

29th – 30rd Nov. 2021

Environmental Sustainability in Digital Preservation
of Cultural Heritage; a sufficiency approach for the Finnish case

presented by

Evangelia Paschalidou

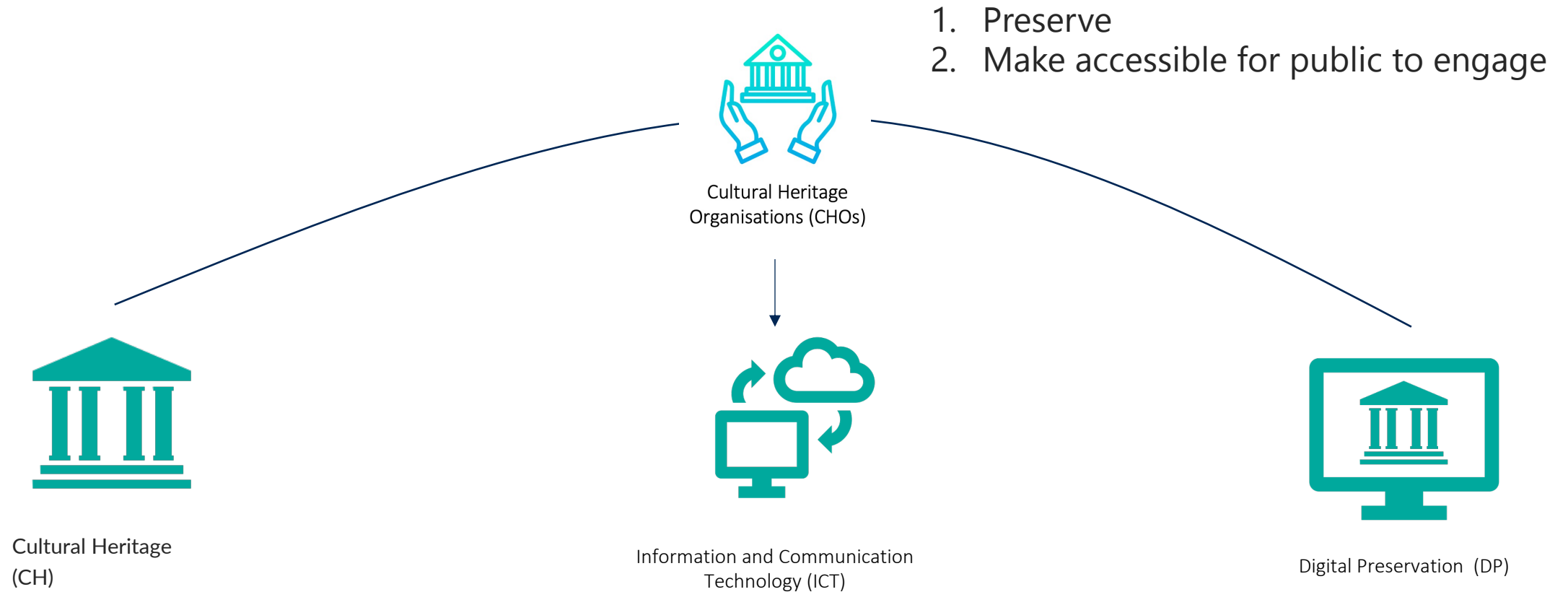


Agenda

1. Introduction
2. Problem and significance
3. Research
4. Outcomes
5. Recommendations



1. Introduction to Cultural Heritage and ICT



2. Problem & Significance

Why should we pay more attention to this now?

1. Efficiency increases in the ICT sector are proving not to keep up with the ICT sector's growth

1.57 years

6-11% raise



2. Acceleration of the digitisation trend in CH

- Harshening of climate change phenomena, directly risking CH
- Covid-19 pandemic

94.7%

closed

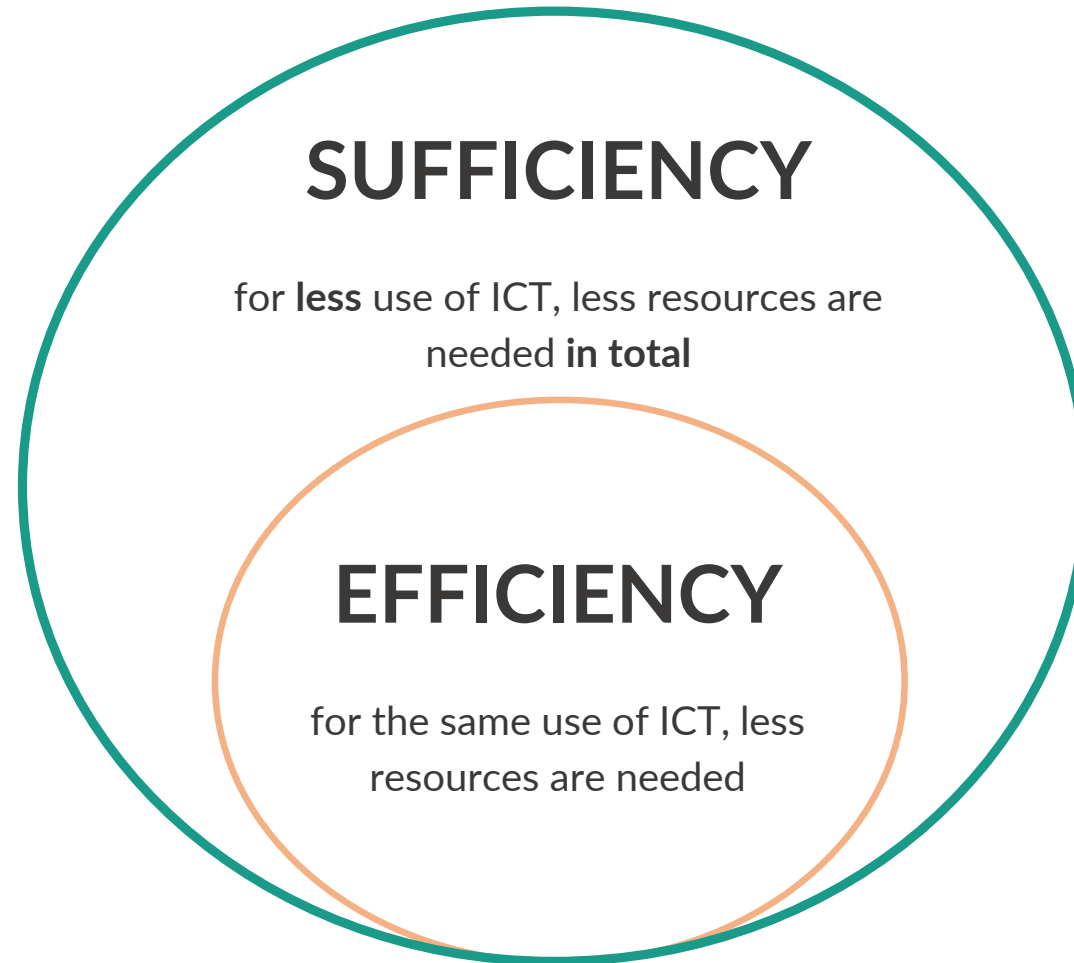
15%

went digital after
the 1st lockdown

40%

still no online collections
and exhibitions

2. Problem & Significance



3. Research

Aim

- Understand sufficiency
- Potentials in the context of Cultural Heritage Organisations

Case study

- Sufficiency practice
- Network of actors and initiatives supporting sufficiency

Methods

- 20 interviews
- network map
- sufficiency theoretical framework

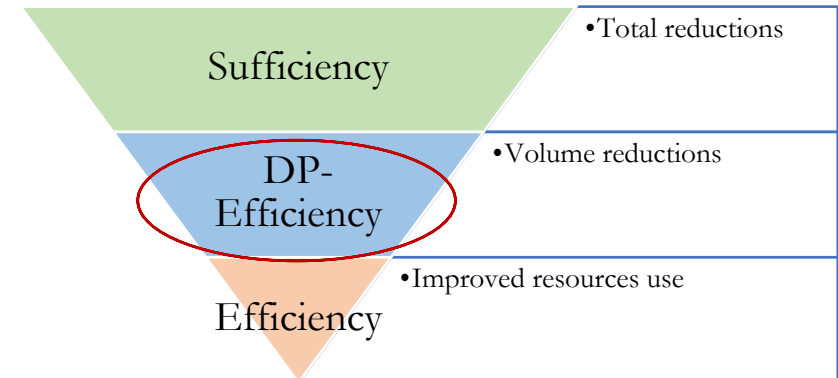
3. Sufficiency Theoretical Framework

	All stages	Appraisal	Preservation	Accessibility
Sufficiency		<ol style="list-style-type: none"> 1. Collect only what needed 2. Digitise only what needed 3. Deduplicate 4. Reappraise in time 		<ol style="list-style-type: none"> 1. Digitise according to users' needs 2. On-demand and tiered digitisation
DP-Efficiency		<ol style="list-style-type: none"> 1. Contain volume with lighter formats 2. Customise default choices in workflows 	<ol style="list-style-type: none"> 1. "Good enough" DP 2. Tiered approach of preservation 3. Run less often complete fixity checks 4. Sampled fixity 5. File format according to obsolescence risk 6. Customise, on-demand, or selective format migration 7. Only necessary number of redundant copies 8. Tiered redundancy 	<ol style="list-style-type: none"> 1. Upon request access migration 2. Tiered access storage system 3. Communicate a delayed delivery access system to the user
Efficiency	<ol style="list-style-type: none"> 1. Technological efficiency 2. Scheduling 3. Clean Energy 		<ol style="list-style-type: none"> 1. Scheduling Fixity 2. Self-check-summing and self-healing software 	

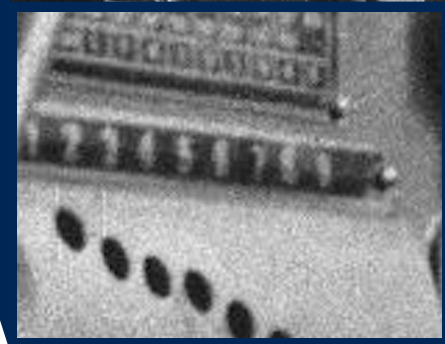
Qualitative Function

- Preservation quality
- Value quality of use

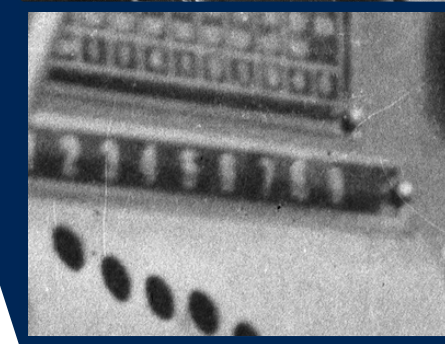
Hierarchy for a Sufficiency Approach



Display image (1200 x 856 px) jpg



High resolution image (6199 x 4424 px) 82.3 MB tif

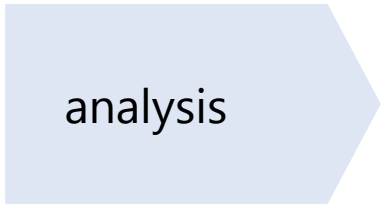


4. Results: Current practice

What is the current practice, regarding the ICT use in DP of CH by the practitioners in the FHA?

	All stages	Appraisal	Preservation	Accessibility
Sufficiency		1. Collect only what needed ■ 2. Digitise only what needed ■ 3. Deduplicate ■ 4. Reappraise in time ■		1. Digitise according to users' needs ■ 2. On-demand and tiered digitisation ■
DP-Efficiency		1. Contain volume with lighter formats ■ 2. Customise default choices in workflows ■	1. "Good enough" DP ■ 2. Tiered approach of preservation ■ 3. Run less often complete fixity checks ■ 4. Sampled fixity ■ 5. File format according to obsolescence risk ■ 6. Customise, on-demand, or selective format migration ■ 7. Only necessary number of redundant copies ■ 8. Tiered redundancy ■	1. Upon request access migration ■ 2. Tiered access storage system ■ 3. Communicate a delayed delivery access system to the user ■
Efficiency	1. Technological efficiency ■ 2. Scheduling ■ 3. Clean Energy ■		1. Scheduling Fixity ■ 2. Self-check-summing and self-healing software ■	

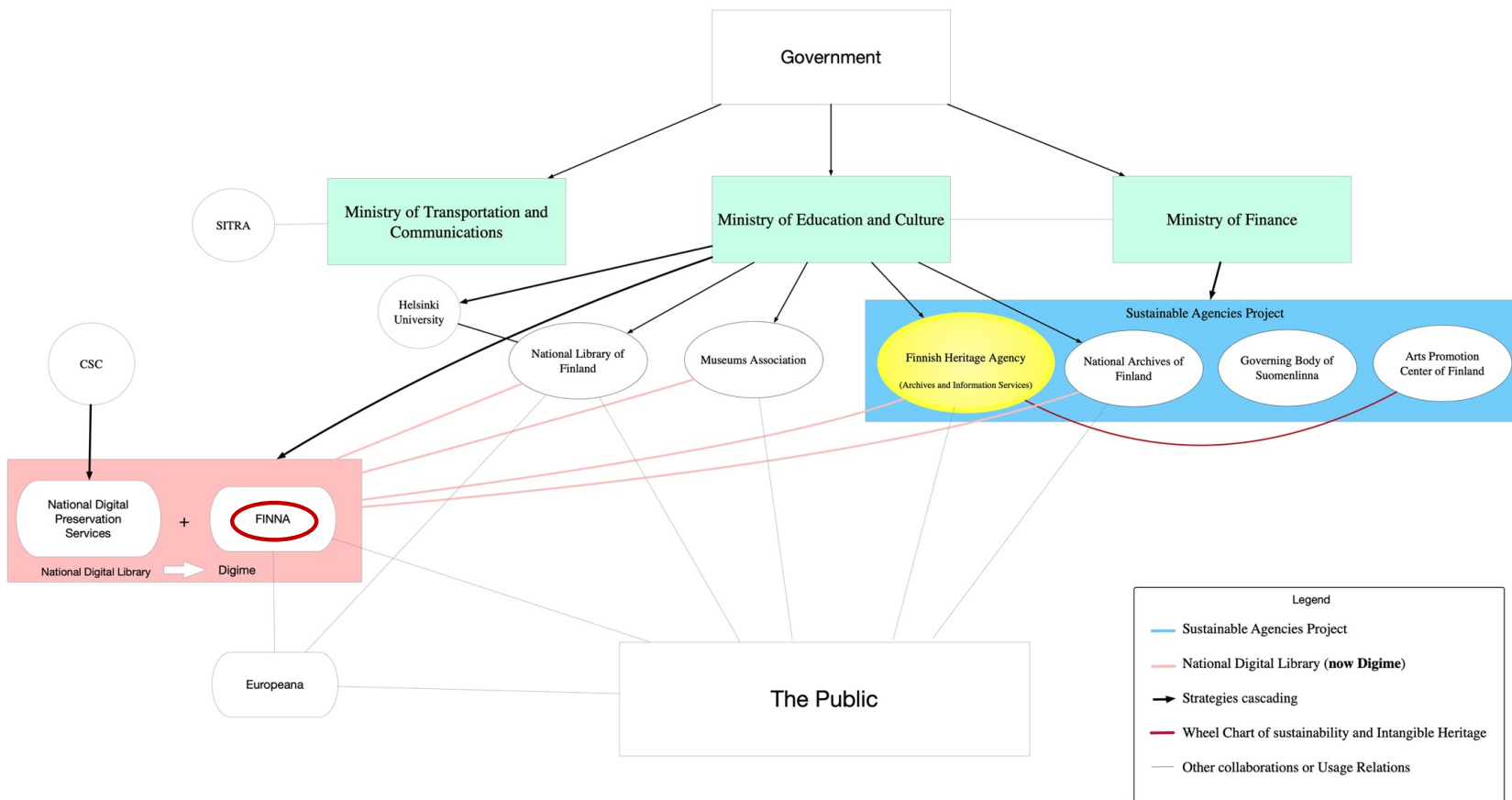
■ Applied somehow
 ■ Action is considered, planned or prepared
 ■ Application is restricted
 DPS provided



- All three sufficiency component strategies are *partially* manifesting
 - sufficiency – no qualitative function
 - DP-efficiency – internally
 - efficiency – as the 'mainstream' sustainability strategy
- Decision-making on quality – **only** within CHO and the partner
- Common understanding is needed

4. Results: Network potentials

How the network of actors and initiatives, can support the advancing of a sufficiency approach?



- Incentivising factors for the uptake of sufficiency are *fundamentally aligned* with the FHA and the Network
 - Qualitative function needs to be introduced
 - Public engagement
- **Overarching potentials:**
 - *highly interconnected network* of actors and initiatives
 - *inclusive organisational structures.*

5. Recommendations



Making the links

- ICT research
- Sustainability Policies
- DP strategies by CHOs



Create understanding

- Internally
- Externally



User-centric approach

- Impact Assessment tool
- Finna



Established Network

- Centralised approach to new ICT strategy
- Public-inclusive

Thank you for your attention!

Picture references

- Museovirasto (2021) Kuva-arkistopäivät 29.-30.11.2021. Retrieved from <https://www.museovirasto.fi/fi/ajankohtaista/kuva-arkistopaivat2021>
- Museovirasto (2019) *Strategy*. Retrieved from https://www.museovirasto.fi/uploads/Meista/Museovirasto_Strategiaesite_saame_2019_kevyt.pdf
- Museovirasto. Finna (2021). Retrieved from <https://museovirasto.finna.fi/Search/Results?limit=0&type=AllFields&filter%5B%5D=%7Eformat%3A%220%2FImage%2F%22>