Counting on Reproducibility:
Tangible Efforts and Intangible Assets
Counting on Reproducibility: tangible efforts and intangible efforts

How did we get here?
1. Costs of digital preservation

152.64 Euros per gigabyte per year in 2018
Based on 242 entries in the Curation Costs Exchange

...money turns out to be the major problem facing the future of our digital heritage. (Rosenthal 2012)
2. Practical Experience of Digital Assets

Setup:
Tens of thousands?

Setup:
Tens of millions?
2. Practical Experience of Digital Assets

Digital Preservation expensive? NO! It’s an Unfunded Mandate
Costs also depend on timing...

Solution? Preservation Ready Infrastructure: Technology, Policy, People
3. Tangible versus intangible: (part one)

**Cash Value:** $6.3bn  
**Share Valuation:** $104bn  
**Intangible assets:** $97.7bn  
**Pieces of data:** 2.1 trillion  
**Productive capacity:** nil  
**Production costs (to FB):** nil
3. Tangible versus intangible: (part two)

IAS 38 Intangible Assets

Objective

The objective of this Standard is to prescribe the accounting treatment for intangible assets that are not dealt with specifically in another Standard. This Standard requires an entity to recognise an intangible asset if, and only if, specified criteria are met.

Scope

This Standard shall be applied in accounting for intangible assets, except:

(a) intangible assets that are within the scope of another Standard;
(b) financial assets, as defined in IAS 32 Financial Instruments: Presentation;
(c) the recognition and measurement of exploration and evaluation assets (see IFRS 6 Exploration for and Evaluation of Mineral Resources); and
(d) expenditure on the development and extraction of minerals, oil, natural gas and similar non-regenerative resources.

If another Standard prescribes the accounting for a specific type of intangible asset, an entity applies that Standard instead of this Standard. For example, this Standard does not apply to:

(a) intangible assets held by an entity for sale in the ordinary course of business (see IAS 2 Inventories and IAS 11 Construction Contracts);
(b) deferred tax assets (see IAS 12 Income Taxes);
(c) leases that are within the scope of IAS 17 Leases;
(d) assets arising from employee benefits (see IAS 19 Employee Benefits);
(e) financial assets as defined in IAS 32 Financial Instruments: Presentation. The recognition and measurement of some financial assets are covered by IFRS 10 Consolidated Financial Statements, IAS 27 Separate Financial Statements and IAS 28 Investments in Associates and Joint Ventures;
(f) goodwill acquired in a business combination (see IFRS 3 Business Combinations);
(g) deferred acquisition costs, and intangible assets, arising from an insurer's contractual rights under insurance contracts within the scope of IFRS 4 Insurance Contracts. IFRS 4 sets out specific disclosure requirements for those deferred acquisition costs but not for those intangible assets. Therefore, the disclosure requirements in this Standard apply to those intangible assets;
(h) non-current intangible assets classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations.

Effective date

An entity shall apply for annual periods beginning on or after 1 January 2006. If an entity applies IFRS 6 Exploration for and evaluation of mineral resources for an earlier period, those amendments shall be applied for that earlier period.

Defined terms
4. A note about Cyber-Insurance

\[ \text{ALE} = \text{ARO} \times \text{SLE}, \]
\[ (\text{SLE} = \text{AV} \times \text{EF}) \]

Annualised Loss Expectancy
Annual Rate of Occurrence
Single Loss Expectancy
Asset Value
Exposure Factor
5. Do we even know the questions to ask ...