



The end of linear text in scholarly communication?

Key Note at INFORMATION VISUALISATION IN HUMANITIES, 23-24 March 2017, Torun

Dr. Rafael Ball, Director of ETH Library Zurich

Agenda

1. Introduction
2. A few Words on History
3. The Age of Digitization
4. Non Textual Scholarly Communication: Some Forms and Formats
5. Summary: Consequences for Libraries?

1. Introduction

Changed conditions in academic communication

Digitization: The Shift from print to electronic

- Digitization
- Number of Scientific Journals
- Serial Crisis
- Supplementary Material
- Hyperlinking
- Data Journals
- Video Journals

-> **Multimedia Product**



2. A few Words on History.....

2. History: Before the written....



Detail of a cave painting showing a wounded man, a wounded bison and a wooden spur (early Paleolithic)

2. History: Oral / Written Communication?



2. History: Oral / Written Communication?



2. History: Gutenberg movable-type printing press

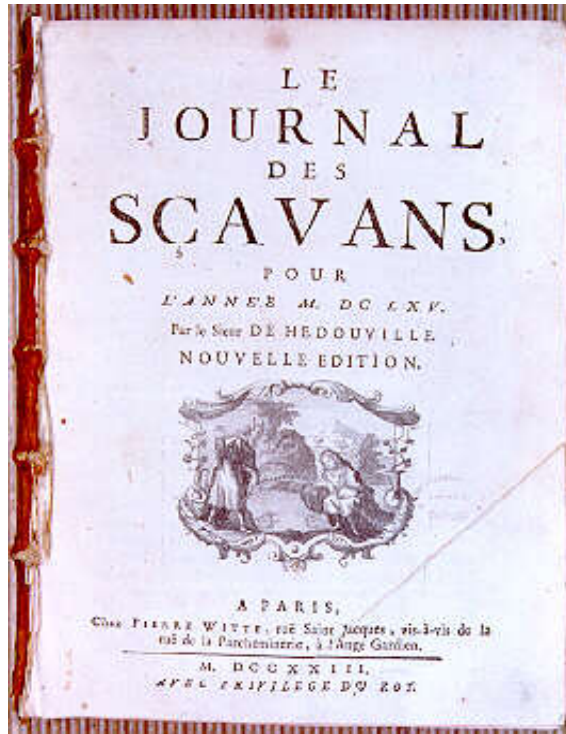


[Meggs, Philip B. A History of Graphic Design. John Wiley & Sons, Inc. 1998. (p 64)]

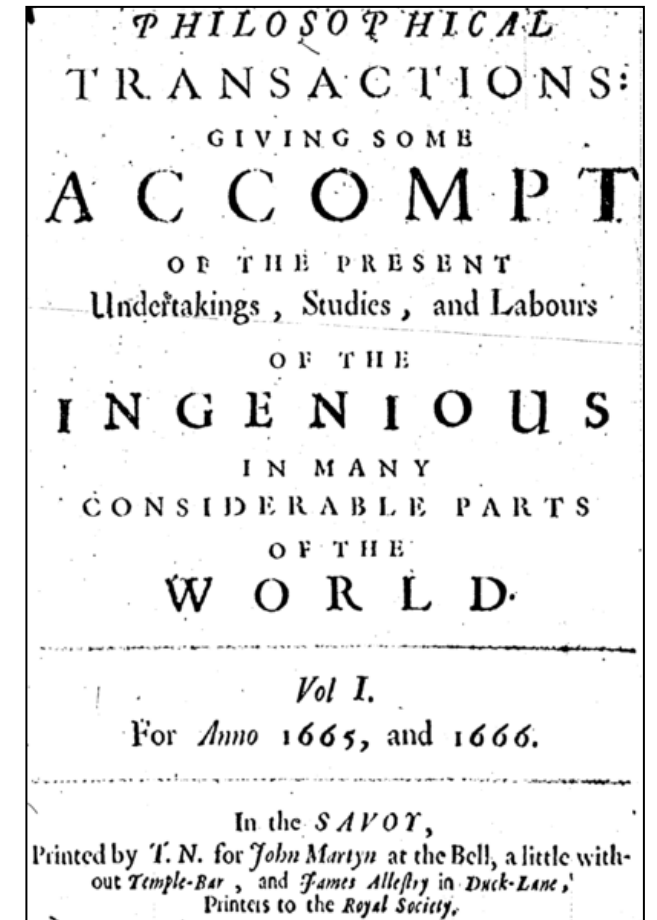
[Picture of a copy of the Gutenberg Bible owned by the US Library of Congress]



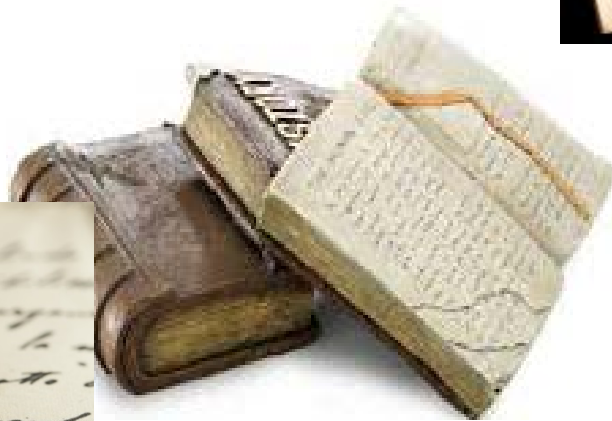
2. History: 1665 – The first scientific journals



Title page of the first edition of 'Le Journal des Sçavans' (1665)

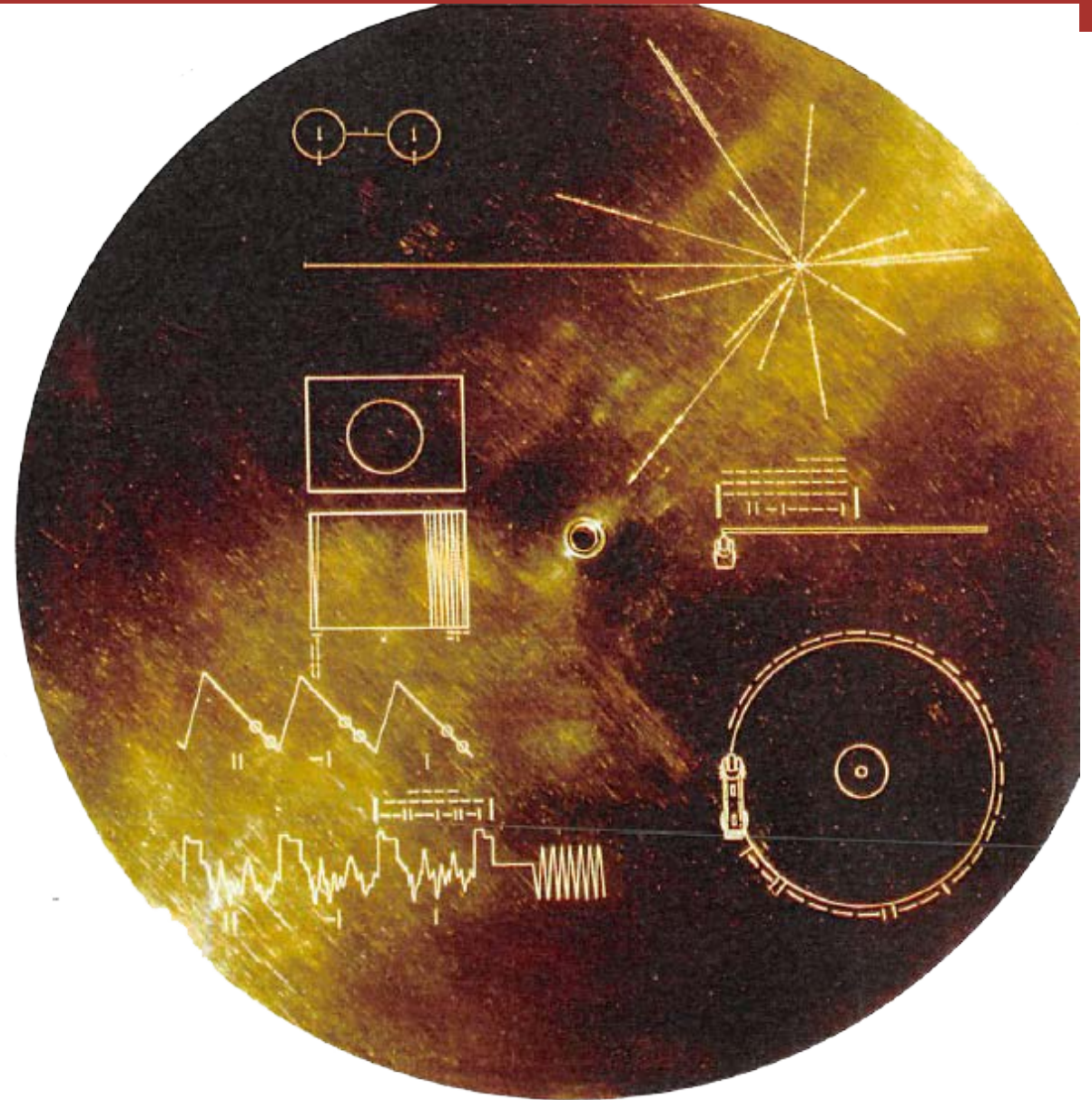


Title page of the first edition of 'Philosophical Transactions' (1665)



2. History: Encoding information

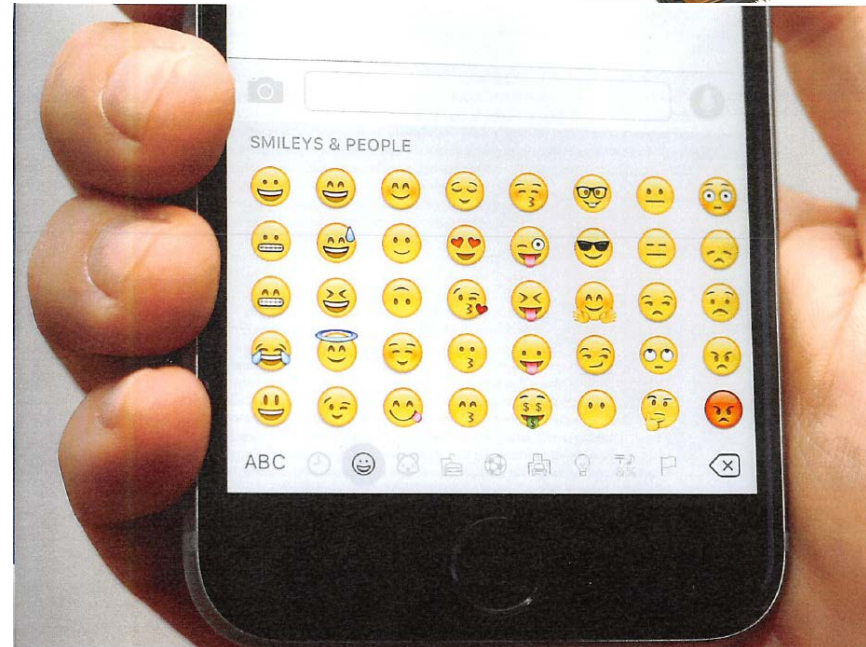
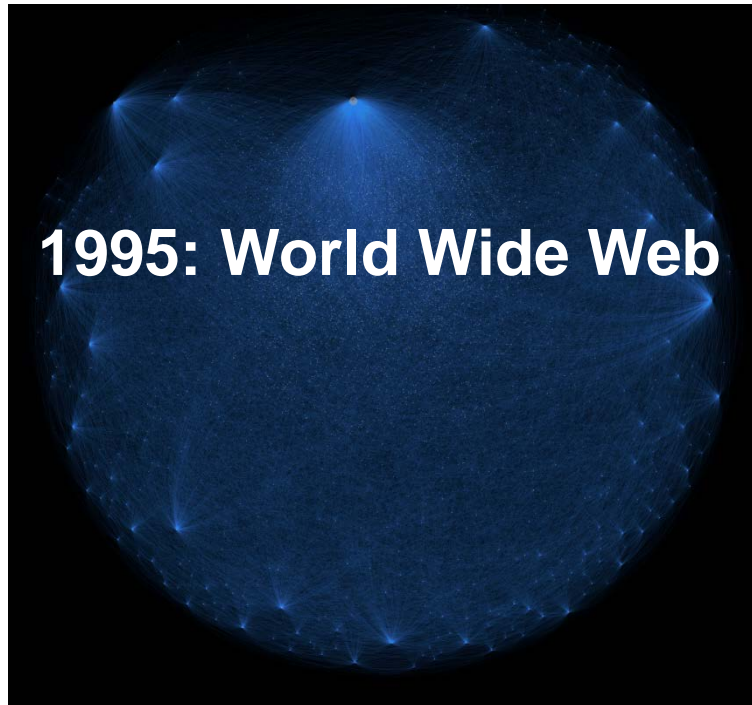
Voyager's Golden Record with information on the earth and mankind (in the Voyagers space probe, launched 1977)



3. The Age of Digitization

3. The Age of Digitization:

- Start: Storage of Digital Content
- 1995: WWW
- Today: Emoticons



3. The Age of Digitization: What digitization implicates



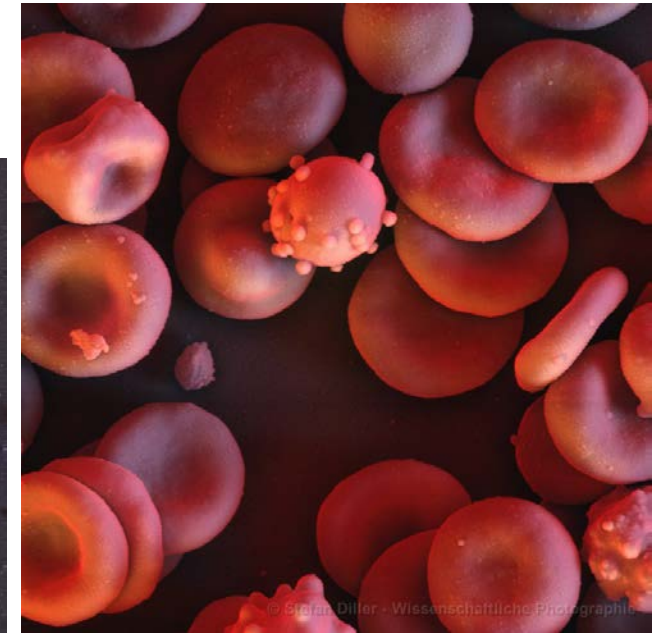
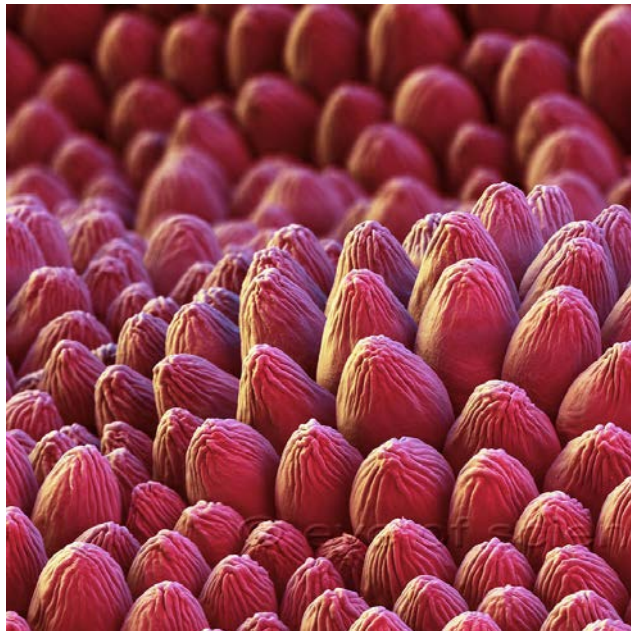
Video «The Machine is us-ing Us»:
https://www.youtube.com/watch?v=NLIGopyXT_g

4. Non Textual Scholarly Communication: Some Forms and Formats

4. Non-linear-text: Some Forms and Formats

Scientific Fotography

- High content of information
- Not verbalizable
- Details



4. Non-linear-text: Some Forms and Formats

Illustrations

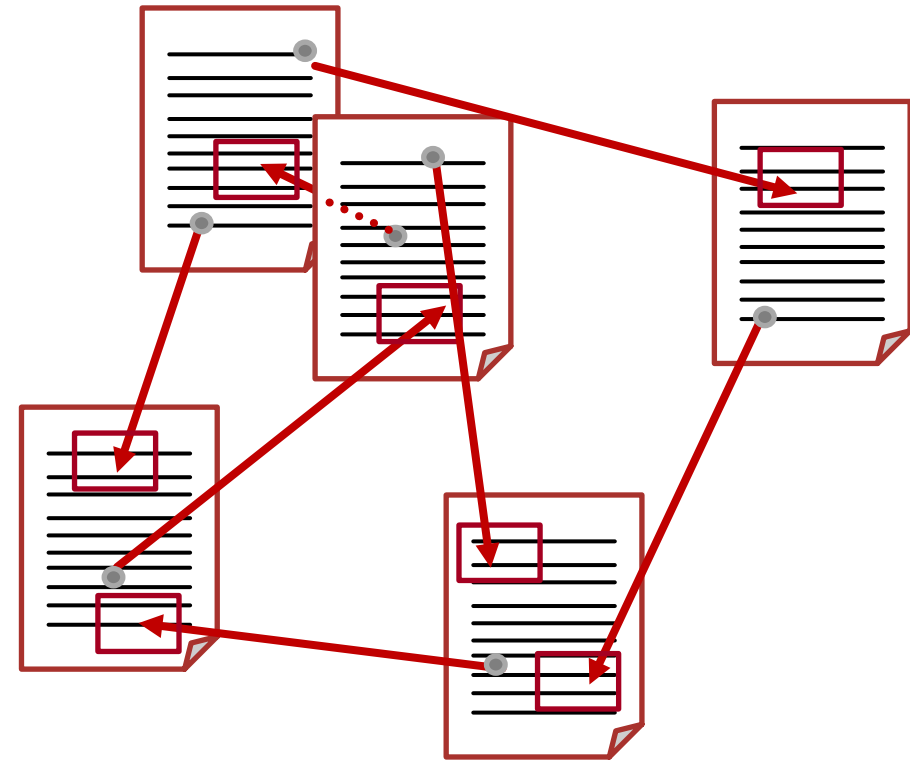
- Context
- Interpretation
- Consolidation



4. Non-linear-text: Some Forms and Formats

Hypertext

- Textual knodes / Information Chunks
- Each chunk is closed in itself
- Linear text only is created when consumed by the user
- Variable links
- Change of media forms

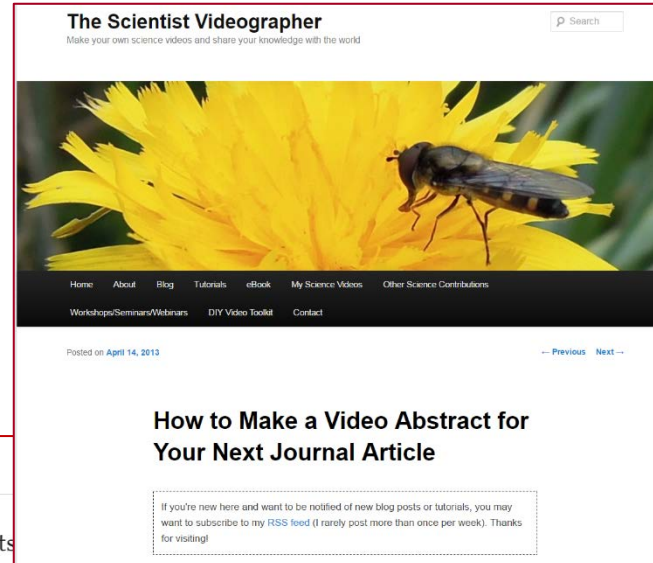
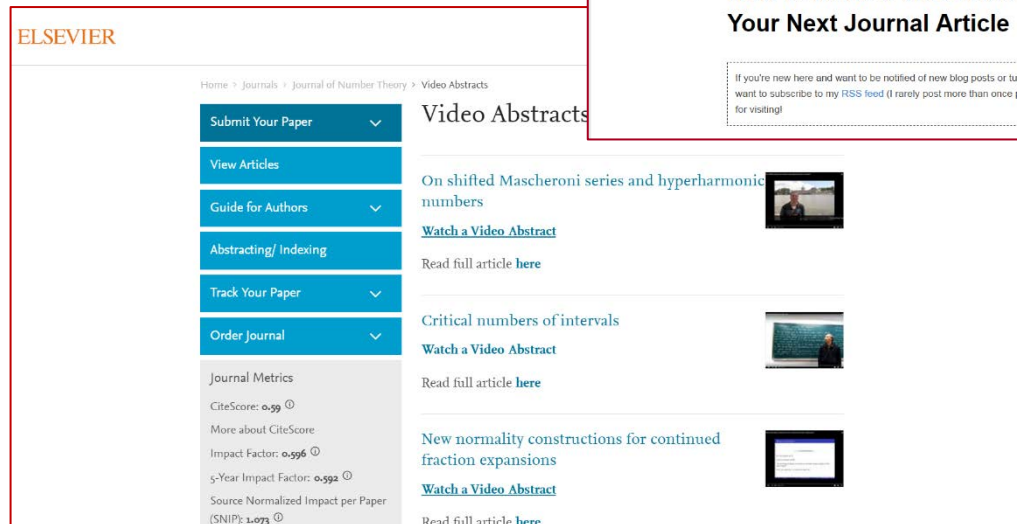


4. Non-linear-text: Some Forms and Formats

Video

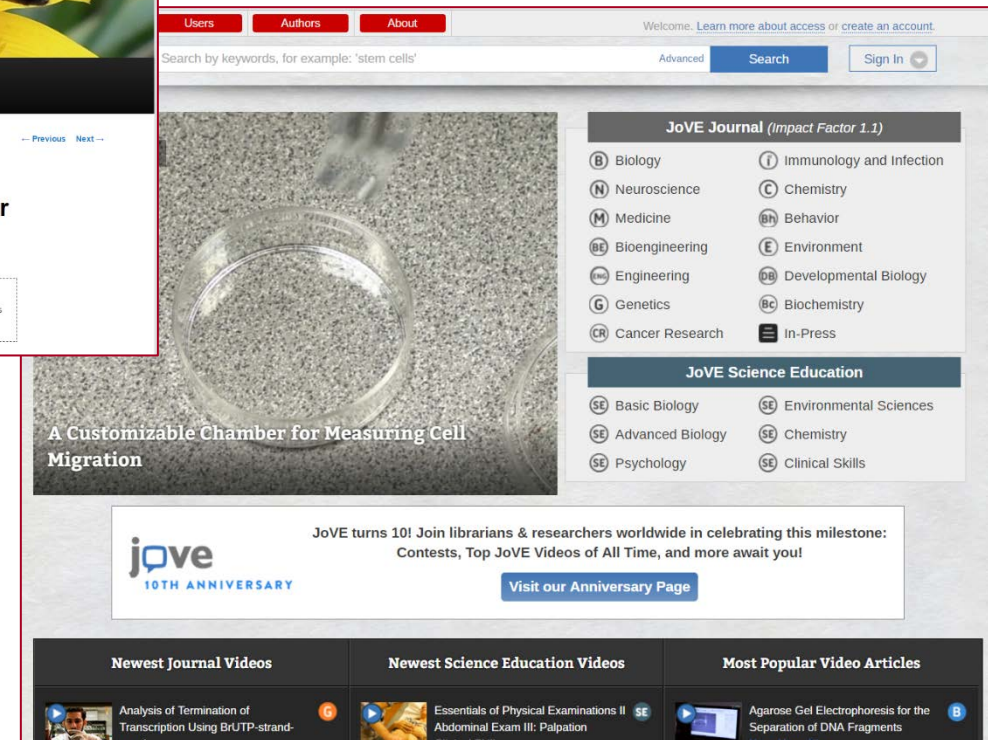
- Video Abstracts
- Video Experiments
- Video Journals

[Elsevier:
Video Abstracts]



[Scientist
Videographer]

[JOVE:
Journal of video
Experiments]



4. Non-linear-text: Some Forms and Formats

Software and Software Parts for Mashups

- Reuse of Software Parts
- Creation of Mashups
- i.e. Software visualizing statistical correlations



4. Non-linear-text: Some Forms and Formats

Fluid Documents

- Never «finished»
- Reuse of parts
- Creation of a new context
- Combination with other media
- Reflects the internal structure of Scientific thinking



4. Non-linear-text: Some Forms and Formats

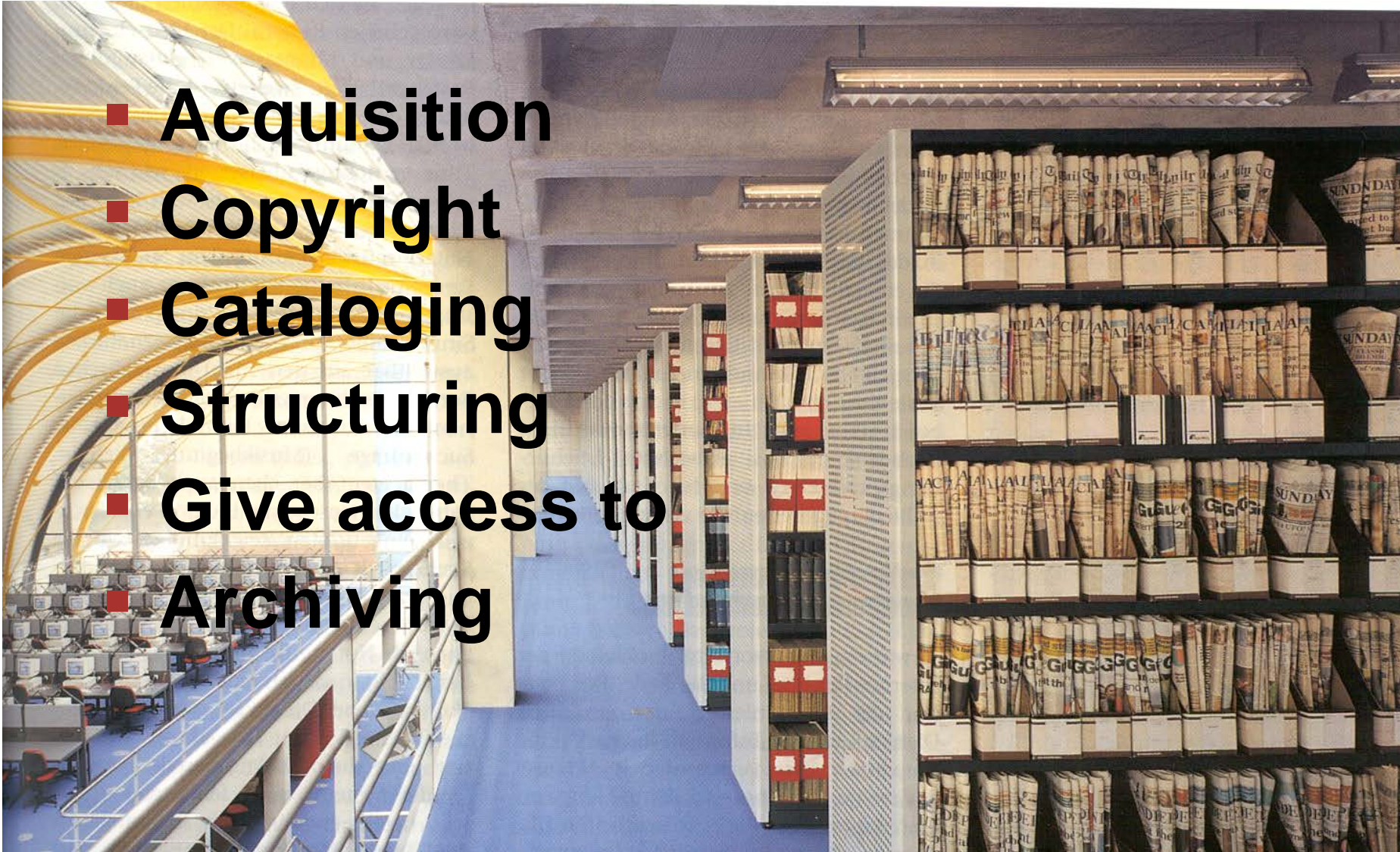
Research Data and Linked (Open) Data

- Huge amount of data
- Reusability in different contexts
- Reinterpretation of results
- Repetition of scientific experiments
- Combination with other data



5. Summary: Consequences for Libraries?

- Acquisition
- Copyright
- Cataloging
- Structuring
- Give access to
- Archiving





Thank you very much for your attention!

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