On Digitalization of News

Ching-Chin Hsieh

Chair Professor
Hsuan Chuang University

Chinese University of Hong Kong   May 24, 2004

Outline

♦ **A brief review of media and related technology**

     ✹ **progress on media materials**

     ✹ **digital media**

♦ **A general model of digitalization**

♦ **Considerations on digitalization of News**

♦ **Concluding remarks**

A brief historical review of media

- ◆ **Progress of Media**
  - ✸ **Changing in media materials**
    - ➤ nature media ➜ fabricated material media ➜ energy media ➜ digital energy media
  - ✸ **new media material ➜ new tools ➜ new technology**
    - ➤ new ways of expression
    - ➤ new concepts and new applications

Being digital…

♦ New media introduces new functions and better performance.

♦ Digital energy media is the only media.

- ⚙ Any media that had ever been used in history can be transformed into digital media
- ⚙ The only media is usually called "multi-media".

♦ In fact, any "form" can be digitalized. The collection of "digital archives" will provide synergy effect of collections.

Media and Civilization

Three-stages of civilization

- ❂ **Audio Space**
- ❂ **Visual Space**
- ❂ **Audio Space**

— **with electronic multimedia**

Marshall McLuhan,
Understanding Media,
McGraw-Hill, 1964

stages	Expression system	Media Material
Audio Space	口語	Acoustic wave No consumption
	(素養問題)	
Visual Space	文字	Material fabricated with consumption
	(功能素養問題)	
Audio Space Electronic World	多媒體	Energy-state in material, almost no consumption while using

A General Model of Digitalization

Three aspects of digitalize an object

◆ **Digitalize its appearance (form)**

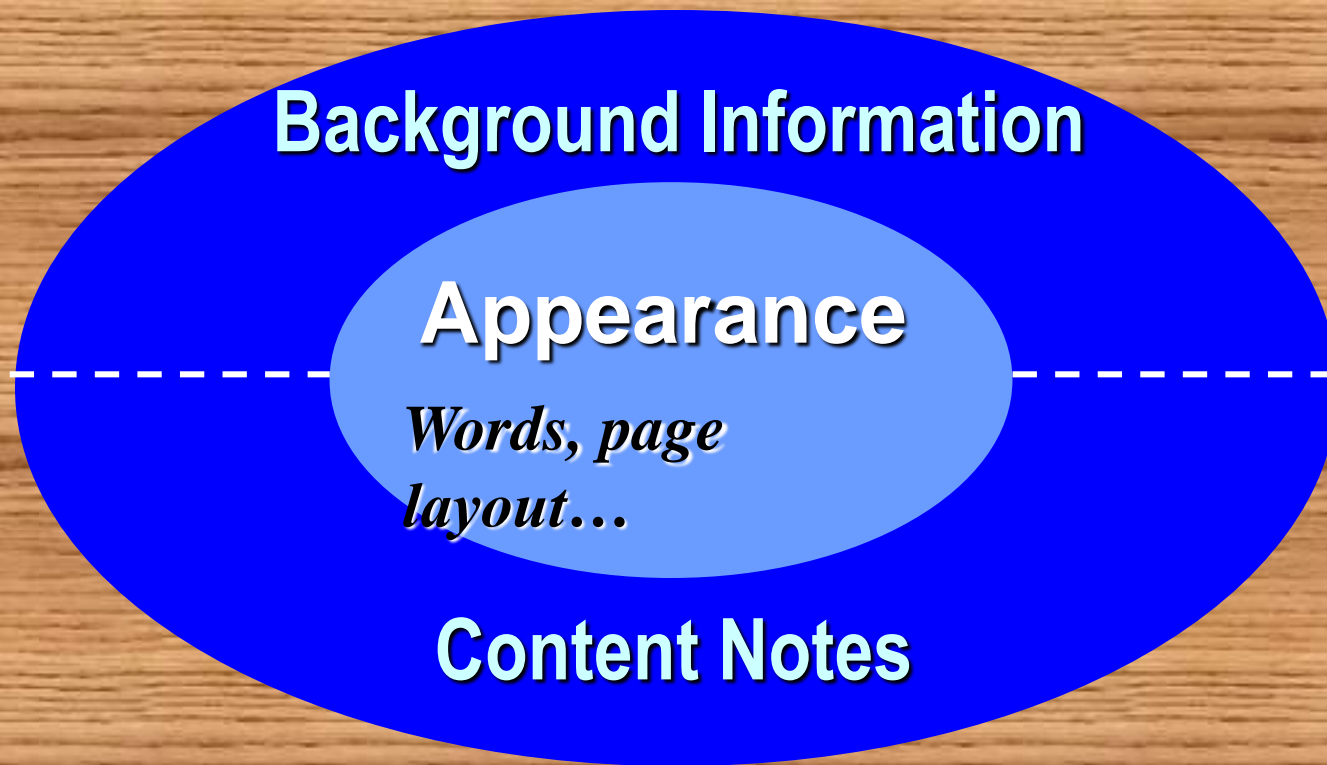   ✤ **Text, figures…**

    ✤ **Typesetting, binding…**

◆ **Digitalize background information**

    ✤ **Bibliographic information**

    ✤ **Metadata for various purposes**

    ✤ **…**

◆ **Digitalize content related information**

    ✤ **Interpretations**

    ✤ **Explanatory notes**

    ✤ **…**

Digitalization of an Object

Background Information

Appearance

Words, page layout…

Content Notes

Reference Links

♦ ***Inter-textuality***

 ✿ between texts

  ▪ *Julia Kristeva*

 ✿ between disciplines

♦ ***Context Reference Links***

 ✿ authorial context, readership context

 ✿ personal, cultural, and social context

♦ ***Multimedia Reference***

 ✿ text to/from object

 ✿ Humanities vs. Nature

A Model of Digitalization

Multi-media References

Context References

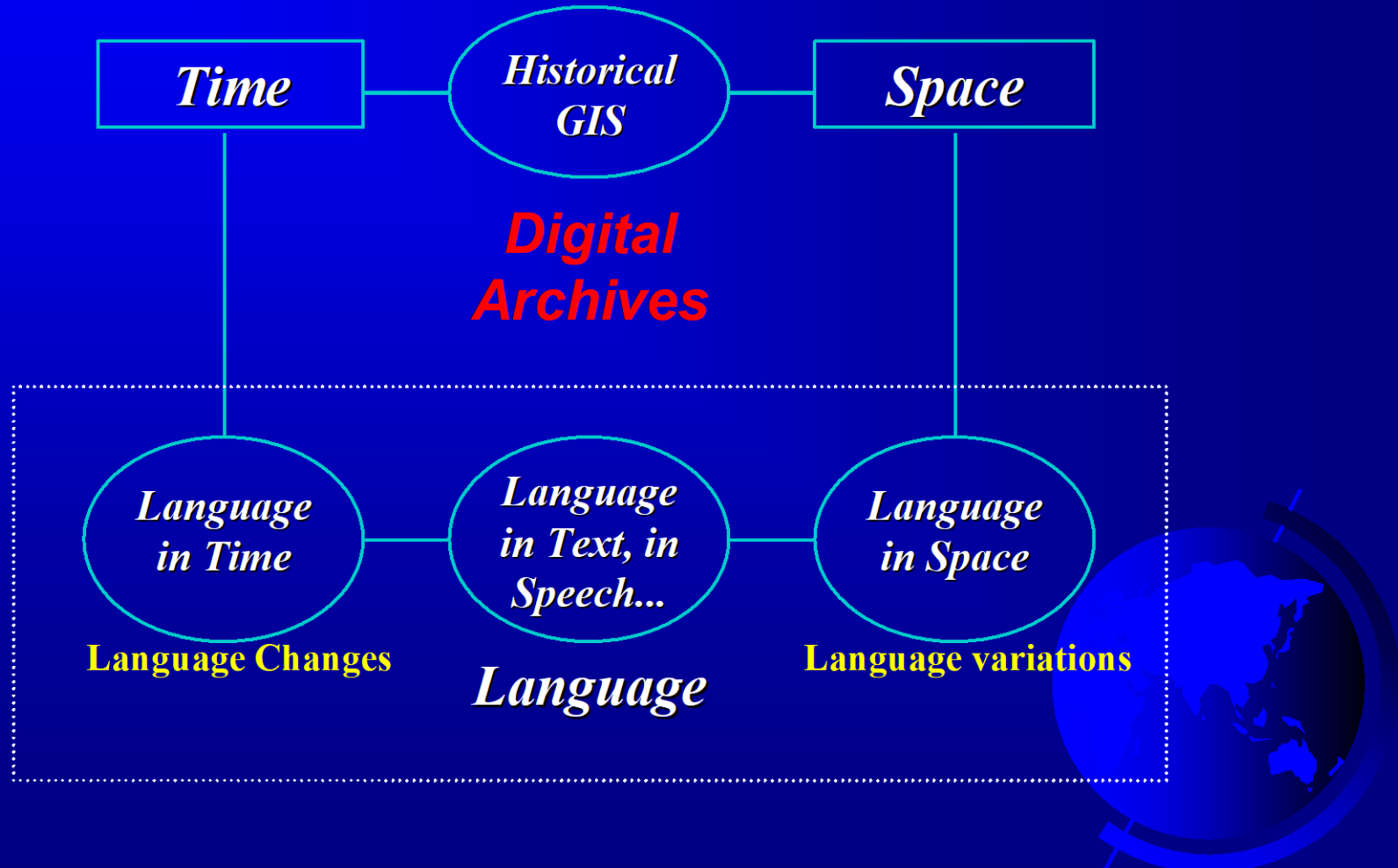**Background Information**

Appearance

Content Notes

Intertextuality

A two-tiers structure of documentation

♦ **Nature language and meta-language**

Digital object	Expression system
Appearance	**Nature language, signs and art languages**
Background info.	**Meta-language**
Content notes	
Context references	

Space, Time and Language Coordinates for Digital Archives

Time — Historical GIS — **Space**

Digital Archives

Language in Time — Language in Text, in Speech... — Language in Space

Language Changes

Language variations

Language

Important Issues

◆ Organization re-engineering
◆ Intellectual property right
◆ Time, Space and Language Coordinates
◆ Multi-lingual issues
◆ Public information systems
◆ Technical Specifications and Standards
◆ Meta-language and Documentation
◆ Cooperation and collaboration
◆ ...

Considerations on the Digitalization of News

News Markup

♦ According to our model of digitalization

   ⚙ various markups

   ⚙ creation of background information

   ⚙ content markup

Just as Examples

Content markup may serve as…

- a way to differentiate straight news and comments
  - within a news
  - link news and comments
  - among comments
- a way to bring journalism and education closer
  - news, science reporting and technical communication
  - links between news database and other databases
  - links between news database and course wares

Connecting to outside world

◆ **Inter-textuality**

 ❀ Among news

 ❀ news to other texts

◆ **Context references**

 ❀ Both news writing and news understanding are heavily influenced by context. Providing context information is a merit of digitalization.

◆ **Multi-media references**

 ❀ Link news to the physical world we living in.

Concluding Remarks

◆Sooner or later news will be digitalized.

◆News digitalization is a typical knowledge engineering work.

◆News digitalization is new to all of us. It is a typical "learning by doing" kind of work. Besides, this work involves many specialties. Therefore, cross-discipline cooperation and collaboration will be the key to success.

Concluding Remarks

◆ After news being digitalized, the news enterprise will more close to the outside world, especially with some knowledge-based fields. Such as:

   ✤ education, library and information science, archival studies, information management , cognitive science…

The End

Thank you very much