Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

Doing research in Humanities at the digital age

Humanities, Human Sciences and Digitalization

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Changing Publication Cultures in the Humanities

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Outline

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

- 1 Digitalization of the paper-based heritage
- 2 Doing research in Humanities at the digital age

1. Some data

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

Some data about paper and digital

Questions raised for Humanities Fragility of digital Philology revamped

Doing research in Humanities at the digital age ■ All the books ever written = 50 billions of bytes



1. Some data

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

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- All the books ever written = 50 billions of bytes
- Production of information in 2006 = 150 quintillions (150×10^{18}) of bytes = 3 millions times the information content of all the books ever written



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- Digitalization is the process of integrating this parcel in the ocean of digital-born information



2. Some questions raised by these data for Humanities

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

Some data about paper and digital

Questions raised for Humanities Fragility of

Fragility of digital Philology revamped

Doing research in Humanities at the digital age Affective (anxiety of paper-born scholars)



2. Some questions raised by these data for Humanities

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

Some data about paper and digital

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Questions raised for Humanities

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- Affective (anxiety of paper-born scholars)
 - Love or nostalgia of books as objects



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Questions raised for Humanities Fragility of digital

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Philology revamped

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- Scientific : what is the impact of digitalization on human sciences?



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- Technical: how to digitalize in accordance with scholarship requirements?
- Scientific : what is the impact of digitalization on human sciences?
- Philosophical : what is the whole meaning of the digitalization enterprise
- Managerial : how to conceive work environments suitable to the new situation?





3. Fragility of digital data

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

Some data about paper and digital Questions raised for Humanities Fragility of

for Humanities
Fragility of
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Philology
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Doing research in Humanities at the digital age Experience of computer crashes



3. Fragility of digital data

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- Fragility of hardware (but the same happens for paper (a fortiori, papyrus): problems with ferro-gallic inks, etc.
 Moreover, solvable by re-embodiment of software into new hardware)



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- Reminder : Digitalization is (normally) not destruction, but protection, of the digitalized source!



4. Philology revamped

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Digitalization of the paper-based heritage Some data about paper and digital Questions raised for Humanities Fragility of digital

Doing research in Humanities at the digital age

Philology revamped XXth Century: shift from philology (= textual scholarship: text is text) to hermeneutics (= Social and Literary Studies: text is context)



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- XXth Century: shift from philology (= textual scholarship: text is text) to hermeneutics (= Social and Literary Studies: text is context)
- XXIth Century: back to text as document, i.e. as the text together with the evidence of its own production and reception



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- XXIth Century: back to text as document, i.e. as the text together with the evidence of its own production and reception
- Context can be viewed in such a frame as well.



5. The very idea of document

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage Some data about paper and digital Questions raised for Humanities Frazility of

Doing research in Humanities at the digital age

digital Philology revamped The same object can be viewed as

a piece of philosophical work



5. The very idea of document

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage Some data about paper and digital

Questions raised for Humanities

Fragility of digital Philology revamped The same object can be viewed as

- a piece of philosophical work
- a set of printed pages (can be even subcatagorized, according to whether we speak about the book as type or about the book as token: in the last case, an item of Husserl's personal library, or something where Fermat has written (think to Fermat's copy of the French translation by Bachet of Diophantes' Algebras), etc)

Doing research in Humanities at the digital age



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- a piece of German or French language



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- a piece of German or French language
- a proof sheet (corrected or no)



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Questions raised

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- etc (more later on "etc")



6. Textual object as text

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We want firstly the text (= a correct transcript of the words)

Not an easy work



6. Textual object as text

Humanities, Human Sciences and Digitalization

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Doing research in Humanities at the digital age

digital Philology We want firstly the text (= a correct transcript of the words)

- Not an easy work
- Counter-example: bad Optical Character Recognition softwares, or correct OCR softwares applied to poor source (e.g. old micro-films, or poorly scanned books), do not do the job



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- Cheap scans spare money at the start, but they are quite expensive in the end (many examples, including in France)
- Lesson: scanning and, more generally, digitalization, should be supervised by scholars rather than to be left to technicians alone, specially when they work for companies or institutions that have no interest on quality and usability by scholars. Scholars should be associated to every stage of the digitalization process



6. Textual object as document

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Digitalization of the paper-based heritage

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Doing research in Humanities at the digital age General philosophy: textual objects are the only enduring products of human intellectual activity

- Textual objects are the only enduring products of human intellectual activity
- Writing is an activity, which has products of two types: enduring products (texts as objects) and transitory products (the thoughts that are created by reading them in the minds of the readers)
- The alleged eternal mental outputs are only the effect of re-reading textual objects at different times

Kazimierz Twardowski, Actions and Products. Comments on the Border Area of Psychology, Grammar and Logic (1912)



7. An example : the digitalization of Twardowski's manuscripts
First stage : Sleeping (and wet) papers in the cellars of Poznan University

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Philology revamped [This is a part of a the project of digitalization of the Lvov-Warsaw Philosophical School archives, which is jointly performed in Paris and Warsaw (60 000 pages digitalized today)]





7. An example : the digitalization of Twardowski's manuscripts Second stage : high-definition scan of manuscripts in Warsaw

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Philology

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Doing research in Humanities at the digital age Normalized "syntactic" representation of the manuscript as it stands (with erasions, annotations etc)



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Philology revamped

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- Normalized "semantic" representation of the manuscript by means of the elements of an "ontology"



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 - Ontology is not fixed for ever in Aristotelian mood, but defined and continuously redefined by scholars community

2. Doing research in Humanities at the digital age

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

Doing research in Humanities at the digital age The idea of work in progress (books discussed and revised before publication)

2. Doing research in Humanities at the digital age

Humanities, Human Sciences and Digitalization

Digitalization of the paper-based heritage

Doing research in Humanities at the digital age

- The idea of work in progress (books discussed and revised before publication)
- Collaborative work by means of wikis



3. New perspectives

Humanities, Human Sciences and Digitalization

paper-based heritage Doing researc

Digitalization of the

Doing research in Humanities at the digital age Use of large databases (scientometry, quali-quantitative analyses)



3. New perspectives

Humanities, Human Sciences and Digitalization

paper-based heritage Doing researc in Humanities

Digitalization of the

Doing research in Humanities at the digital age

- Use of large databases (scientometry, quali-quantitative analyses)
- New way of working (link between scholars and engineers