# The Internet and revolutions of thought

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Presentation More precisely

#### Presentation

- MCF/Lecturer at Enssib.
- former Director of Programme at Collège international de Philosophie.
- Head of Team *Réseaux, Savoirs & Territoires*, Ens-Ulm and of Team *RAIL*, Enssib and IXXI.
- Project: philosophy of the Internet. Explaining facts and tendencies with history: of science, technology, scholarship.
- Empirical approach: practice and inventing new editorial forms.

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## More precisely

- Use of anthropology: intellectual practices, technology of the intellect, technique and culture.
- Epistemology of calculus and history of maths.
- Philosophy of materiality, constructivism.
- Critical theory (science, technique, industry and people at large) + sociology of sciences.
- + some questions: how to avoid the *collective noise* when we deal with a subject like the internet? Can we avoid to be religious when we study technology? Do we assist a revolution or can we find continuities with the past?

Aim: build a theoretical and comprehensive frame to understand what happens today: a frame which everybody can take, use.

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## The Internet

- Machines (computers, routers, cables...)
- Protocols: parts of written texts which enable communication between the machines.
- People. Many, various, not really comparable. Each one may be expert in a domain and artless (naive) in another.
  - A lot of writing:
- A yarrow (mille-feuille) of layers/protocols, each one over the other. Most of time, we access the highest layers.
- A binary system of writing (0/1) which becomes a textual matrix: \sum\_{i=0}^n becomes ∑<sup>n</sup><sub>i=0</sub>, &#5784; becomes ➤ and &#9822; becomes ▲ .
- A combinatorial juggle amplified by the networks (needs of technical norms: UTF-8, etc.): the Internet changes the world of previous computers.

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#### Questions and remarks about signs

• What is a word? Is there a difference between figures and letters? What about the former differences between text and pictures? For both answers, look at

http://barthes.enssib.fr/TetedOrpetit.JPG (whith exiftool).

- A lot of layers of writing:
  - LATEX: editor, a written engine (pdflatex) with lots of librairies, a pdfviewer, an OS, etc.
  - A request to a search engine: words, a protocol to send them to a server, a computation, a textual result, a presentation through a navigator.

First conclusion: a new system of signes (0/1) which enables a new textual combinatory, with new **syntaxes**, which we have to learn as previously, when we learned multiplication table or correct agency of sentences.

# The media

- Stones, papyrus, paper, hard disks, USB keys, cables, screens.
- A new relationship to mass: huge numbers of texts, etc. Cf. Gabriel Naudé with his 8000 books in de Mesme library: necessity to imagine a new conceptual order: a new order of knowledge.

Effects:

- Redefining categories of knowledge, tools to find texts. Rethinking or relationship to library, to scholarship. What is a scholar today? Somebody able to circulate (travel) amoung digital libraries of any kind?
- Rethinking the notion of unity of a text (no more closed) and the notions amoung: an article, a journal, a book, an edition, etc. The former order (get the journal to access the article) is obsolete.
- How can we find an *object* in such medias?
  find . -iname \\*dhombres\\*. Not perfect, but a syntax we can learn.

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## Signs, media and...

- Rethinking syntax and library (cf. before).
- We first need to teach theses syntaxes and access to library and knowledge, and to improve them collectively: need of schools.
- We also need to practice *alone* these new ways of writing: with exercices, experiences, analyses, sysnthesis, comparisons with what happened before, etc.

#### **First conclusion**

- In fact, we have spot 4 categories about digital writing: media, systems of signs, collective activities (schools), personal (intellectual) activities.
- We also understand that these activities are not only *spiritual*: they involve a lot of materials (a computer is heavy), a lot of recipes (copy/paste, click), they are highly technical.
  - Is this really new?

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Figure: The 4 components of writing. Next: relations between these components, etc.

contexte social

activité intellectuelle

Papyrus d'Alexandrie des marges étroites et le choix d'annotations non destructives sont à l'origine d'un système complémentaire de signes qui fera école

Definition What teaches us history of writing? The Internet and writing Effects of writing Scholars

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# What teaches us history of writing?

- A technology which reproduces really badly orality: Are you coming?, he said he would come.
- A technology which doesn't work: programs, smileys, formulas:  $\frac{1}{2} = \frac{2}{4}$ .
- A need of collective solutions to improve it, with success or not (index, table of contents, sPAcESBE TweE NwoRDs).
- A very long time to socialize theses choices, norms.
- A natural need to thing about this technology: reflexivity: what the use of this technology? Does it affect our thought? Can we really think without writing? Ex.:  $x^4$ .
- We discover that our thought has always been collective and rooted on tools, techniques.
- Culture of writing: learning/inventing/teaching recipes and thinking about them.

Definition What teaches us history of writing? **The Internet and writing** Effects of writing Scholars

# The Internet and writing

- No revolution: the Internet *reveals* us some realities we had difficulties to see when our relationship with intellectual tools was more continuous.
- We also discover the dangers of spiritualism: the mind againt the matter, the subject against the object, etc.
- A long history of science (graphical proof) and of clever use of writing, which can sometimes *make* demonstrations:

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\begin{array}{c} 1+2+\ldots+10\\ 10+9+\ldots+1 \end{array}
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- Some evidences: if graphics help us to develop proofs, we have advantage to transform them as texts (combinatory, comparaison, manipulation, etc.).
- When one (at least) of our four ingredients changes, most of our habits and methods change (don't forget that recent changes have a long history, at least since Hilbert [1900]).

Who can write today? Who owns writing? What is the power of writing?

Definition What teaches us history of writing? The Internet and writing Effects of writing Scholars

# Effects of writing

No effect if you don't want. Writing does not give power, but capacities. So the internet will offer you nothing if you don't want. As writing of printing times.

- A technology is more than a tool, is not really *objectivable*. But it can be used as a tool. And writing helps to compare, summarize (different texts or versions), criticize, make things which are difficult with only orality.
- An expert or settler from a society with writing, and even the scholar of scribal culture can be without idea.
- The poor, like the slaves of Bahia in Brazil in 1835, can foment a revolution to access freedom. Not because they would have been acculturated to the revolutionary ideas of Europe via a Toussaint Louverture: because the writing they mastered ()more than the settlers) because they could read the Koran gave them possibilities of organization.
- Here writing (and techniques) puts all humans on the same level, provided that they take advantage of the capabilities it offers: if we want, we can easily plan a project, organize our thoughts when we can write.

Introduction Definitions and descriptions Conclusion Untroduction What teaches us history of writing The Internet and writing Effects of writing Scholars

## Scholars

Definition: somebody with high technical skills in writing (math, history, chemistry, etc.), which produce a strong culture (knowledge in one's domain); and **sometimes** has an ability to put his/her knowledge in perspective (reflexivity): to invent, break confortable norms and routines, etc.

Examples: Scribes, scholars of Renaissance and of Enlightenments (Diderot), Chopin, Pasteur, Einstein, Levi-Strauss, Patty Smith, etc.

These people understand and shape the world with their values (moral and aesthetical), are often close to power, specially if they are few.

Example from Jack Goody: Shakespeare's work was created and read by scholars, even though illiterates could see plays and participate. In other words, they were influenced by the productions and creativity of the literate community, so that their 'oral' culture was not of the same order as what I call the purely oral culture of non-writing societies. Moreover, whatever the strength of the 'popular' culture, as far as communication is concerned, there is always a stratification based on the written word: those who master it are held in higher esteem.

How many digital scholars today? Who can really develop a critical thought about the Internet and World affairs of today?

What do we accept or not? A second experience and some comments Lots of questions remain

## What do we accept or not?

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We are used to this kind of logos.

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What do we accept or not? A second experience and some comments Lots of questions remain

#### Is capitalism kind or naughty?



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We are less used to this kind of logos. The former enterprises are now richer than the later ones.

What do we accept or not? A second experience and some comments Lots of questions remain

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#### A second experience and some comments

- https://www.google.fr/search?q=chat&ei= OGAYWuyJCISswgSL44KwCw&start=100&sa=N&biw=1653&bih=1086
- https://www.google.fr/search?q=chat&ei= OGAYWuyJCISswgSL44KwCw&start=1000&sa=N&biw=1653&bih=1086
- https://www.google.fr/search?q=chat&ei= OGAYWuyJCISswgSL44KwCw&start=500&sa=N&biw=1653&bih=1086

#### Remarks

- Our system of writing is nowadays highly instable, and does not help us develop a global culture of writing.
- Car industry, newspapers are today dependant of the huge industry of writing.
- The same for us: surveillance, advertising, profiling of our actions, etc.

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## Lots of questions remain

- Judge the technology or people who own it, use it for their interest?
- Technology always transport moral values, inserted by humans.
- Avoid technical determinism, which assures that technology changes society.
- A concret philosophy of technology, political reflection on the internet and its industrial tendencies.
- Some groups own our technology of the intellect. Hence they can influence our frames of thinking.
- What about the University, the teaching of writing of today and of critical thought?
- Technology is a collective production, a collective propriety.
- Reinventing the philosophy of technique and link it to political philosophy?

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## Thank you

- Some revolutions of thought, but not so many. And not where most people tell us they are.
- Some private appropriations of *our technology of writing* and abuses.
- Don't forget the example of Bahia: writing is ours.

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