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Problems and Perspectives of Humanities Computing

AIUCD 2017 keynote - ABSTRACT for the web-page.

This contribution is offered to the Conference as testimony of sincere gratitude for my appointment as honorary member of the Association.

I begin my reflections on the present condition of the discipline humanities computing with a positive and optimistic note, because in my opinion it may be considered satisfactory. Many of the inconveniences that we suffered in the years '980-90:
- the common belief that computers could only crunch numbers;
- the diffidence of the academic authorities for our activities;
- the high cost of the hardware or of its shared use;
- the ignorance of the subject in the people who took decisions;

(to mention just some of them) are no longer with us. On the contrary we notice with gratification that:
- the number of the professorships is steadily growing;
- so is the number of departments and centers dedicated to DH;
- new journals, book series, and handbooks are frequently announced;
- many national and international associations have been founded.

A phenomenon which may be considered peculiar, but in any case shows the good health of DH, is the polemic recently raised by some ``conventional'' scholars against the supposed privileges that research in DH would enjoy in the assignment of funds. The major negative aspect in the present situation is the general crisis which has affected humanities scholarship in the University organization. It is certainly a problem that we digital humanists should consider and discuss, but cannot be treated in this paper.

It is however unquestionable that from many communications in the lively and very interesting blog of our association, the AIUCD, it appears that many DH colleagues are unhappy about the way DH are developing, both in Italy and in the international milieu. It is my intention to briefly explore some of the reasons of this, and the best way, in my opinion, is to turn to the history of our discipline.

By the way, the history of DH is a subject increasingly sharing the popularity of DH themselves. I like to mention the latest book by Julianne Nyhan (with Andrew Flinn), Computation and the Humanities. Towards an Oral History of Digital Humanities, where also an interview with me is published, and one can find informal judgements on the development of DH. More formally I have identified three

periods in that development in my paper Un ultimo bilancio dell'informatica umanistica (conference: E-laborare il sapere nell'era digitale, Montevarchi 22-23 novembre 2007).

In particular I find in the years around 1990 a significant turn from theoretically oriented experiments to the uncritical adoption of the technical opportunities offered by the modern computers and the internet. A few examples may be in order.

In November 1995 a banal observation by Russon Wooldridge:

>One lesson to be drawn from this is that if one wants to make the
>contents of electronic discussions or references in languages other
>than English truly accessible, diacritics and diacritic
>substitutions should not be used - this aside from linguistic
>considerations that have fuelled much discussion on Humanist.
>Therefore "Academie" and not "Acad/emie", please.

initiated an extensive and ample debate in Humanist [from 9.327 to 9.435, 1995-96] on the fundamentals of encoding. What was written in that occasion by a number of illustrious colleagues is still worth reading and meditating, because such issues were almost never raised since then. The result is an unsatisfactory treatment of encoding in almost all enterprises active today.

In the same year 1995 a French team was collaborating to the birth of Unicode, the alphabetic standard which would replace Ascii for encoding digital texts. In their series "Cahiers Gutemberg" (n. 20) was published an important tractate on CODAGE DES CARACTÈRES ET MULTI-LINGUISME : DE L'ASCII À UNICODE ET ISO/IEC-10646 (Jacques André, Michel Goossens; I ed. 1985) which contained fundamental observation on the theory of encoding. Unicode later followed a different way, and in my opinion it is used now in the wrong way, when manuscripts and printed text are digitized. In any case almost nobody returned to the reflections found in that tractate.

It is evident that in both cases a serious discussion on semiotics, in order to declare one's position regarding encoding procedures, is necessary. Unfortunately nothing like this is found in our annals; and I shall mention that in 1990 the significant book of NÖTH, Winfried, Handbook of Semiotics, (Indianapolis, Indiana University Press), was published. It might well have been used as a basis for that purpose, but it was never taken in serious consideration by DH scholars.

A similar fate was reserved to the book of GARDIN, Jean-Claude, Le calcul et la raison. Essais sur la formalisation du discours savant (published in 1991, Paris, Éditions de l' École des Hautes Études en Sciences Sociales.)

It was the major contribution of the great archaeologist (and philosopher) to the question how to use logical computing procedures in the humanities, which he debated throughout his life. He too remained almost ignored, and many DH researches which would have much benefited from his theories, to this day suffer of insufficient methodological consistency.

Finally I like to mention that the year 1995 registered the birth of Linux, that put the Unix environment system within the reach of every desktop computer. I am convinced that Unix is the best environment to make experiments in Humanities Computing without being an expert in programming languages, but also avoiding commercial proprietary software, which is subject to untimely changements, and in any case is not designed for humanities needs.

What I am suggesting, is that the lack of theoretical reflections that we note after the years '990, is the reason of the dissatisfaction of many colleagues, even if DH on the whole are flourishing. If I had to propose some remedy to this impasse, I would act in three directions:

1) Keep clearly distinct three perspectives in the discipline, which tend to overlap. The perspective of the technician, for whom only the *fantasmagoria* of the digital presentation is important, without considering whether the scholarly content is really computational (in its essence) or not. − The perspective of the teacher, who is only requested to show the current standards and techniques, without entering in computational reasoning for the humanities (cf. Gardin supra). ─ The perspective of the scholar/researcher, who should on the contrary focalalize on the encounter of humanities and computation (not computers!).

2) To go back to computation (eventually in the humanities) only as the development of the potentialities of the Turing machine, i.e. the formal reasoning and modelling.

3) To analyze in depth how the individual humanities disciplines are challenged in their traditional metodologies by formalization and modelling: treatment of texts, history, archaeology, literary analysis, linguistics, etc.