

The teaching of classical literary subjects

The use of new technologies for distance learning

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ABSTRACT. This paper suggests a reflection on the educational potential offered by new technologies applied to the field of modern and classical literature, not only for study and scientific research, but also for academic education. Study and scientific research about humanities have greatly changed their physiognomy in recent years. The use of methodologies, logics and technologies is, in fact, associated with various kinds of media and digital resources. After an initial phase of conservatism, academic teaching of humanistic disciplines has increasingly adopted multimedia and e-learning strategies. I will therefore analyze some multimedia teaching tools for classical subjects as effective means for teaching, which do not simply constitute a transposition of the content, but are used as an equally effective method of transmission of the ancient literary heritage. The conclusion will focus on the heated debate about the relationship between humanistic literary culture and digital culture.

KEYWORDS: *Classical literature didactics, digital culture, humanistic culture, multimedia technology*

Introduction

Technological progress has greatly modified humanistic knowledge over the last years. This process was certainly inevitable, just like other great changes brought by computers in our modern world. The pioneers of new technologies had already imagined this would have happened. Norbert Wiener had already considered the cybernetic revolution in 1950 in his monography *The Human Use of Human Being*, and wished that the new scientific discipline found its way to humanistic culture as well (Wiener, 1950). Licklider, a cybernetic-enthusiast psychologist, had theorized with even greater conviction the man-car symbiosis in the early 60s, foreseeing that all subjects of humanities would have contributed to the development of computer science and would have eventually been modified by this (Licklider,

1962). During those years, the debate dwelled inevitably upon the changes that computers would have brought about, prophesizing a future in which cyber-communication would have supplanted the face-to-face one (1).

The revolution of the web 2.0 has involved all humanistic studies, from the philosophical to the historical sphere, from linguistic to artistic and literary circles. In particular, it is interesting to analyze the way technologies have twisted the job of a researcher of classical literary subjects -in Greek and Latin language, on a daily basis. Without exhaustive principles, this paper will examine some effective technological instruments applied to scientific research. I will also be looking at the way they have changed the study of Greek and Latin literature and ancient civilizations. The paper will then analyze common multimedia products employed in online didactics of these classical disciplines. This synthetic analysis on the connection between computer and classical disciplines will bring to a general reflection on the relationship between literary humanistic culture and digital culture.

Computer technology and humanistic literary studies

Nowadays the web is the main responsible for all kinds of research, as well as any passage of information -the virtual space in which this information is produced, it exists and is connected; a benefit for the community without copyright. The research in humanities itself is more and more connected to the computer element. It is sufficient to observe the projects presented for the PRIN in Italy (Projects of National Interest) in the last years to underline the impact of the new technologies in the research area 10 – Philological and Literary Sciences, Historical-Philosophical Antiquity, and 11 - Historical, Philosophical, Pedagogic and Psychological Sciences (<http://prin.miur.it/>).

Many projects that have received financings in humanistic and literary fields show a great deal of interest in digital resources, demonstrating that we can gradually change. The global tendency, first in the Anglo-American world and then in Europe, is to intend the scientific research in all fields, as a study realized with structured access to the digital contents, and with consequent transformation of the same research. The various phases of work take place online with finding of the sources and publication of the results. In the internet age 2.0, humanistic disciplines, that for a long time had built their authority with the analysis of the stratification of the objects and the meanings produced by the history, are obliged to ask about the possible sceneries of study, research and didactics of the future.

Therefore, research has changed its face, thanks to the increasing employment of the open access literature and scientific open access papers. Thanks to the use of online resources, accessible to all, with general no costs and copyright restrictions, breaks the limits of traditional research. Nowadays most journals allow the authors to publish on open access files and this produces a great deal of change on the impact and diffusion of scientific researches. The consequence for the near future is the creation of a parallel channel to that of scientific journals for payment, which is not strictly a synonym for sacrifice of the quality of the papers and of published studies. Despite the positive sides of the open access to science and knowledge, some oppositions persist, as well as the “restraint” of researchers themselves, especially in the humanistic-literary area.

Yet, new computer methodologies induced great benefit to the literary studies. Specifically in the area of the texts editions as collections and *corpora*, with critical apparatus, and critical editions and rich of bibliographical information. The meeting between writing and computer science produced new forms, new texts categories and structures, now available as digital texts (Rettberg, 2016).

The cultural and literary patrimony increased to the point where scientists and the researchers digital archives. The digital materials available have different forms, with benefits for the didactics and study: texts, images, recordings audio, videos, link to web pages, database, open source files, etc. (Lana, 2005). The web and computer use have changed the conception of the humanistic and critical-literary study, accelerating the phases of the work. Preliminary studies are no longer done on previous bibliographies, but on online catalogs and digital libraries, search engines like *Google*, *Google Books* and archives of online texts.

Moreover, online databases allow a fast bibliographical research:

- *TOCS-IN*
<https://projects.chass.utoronto.ca/amphoras/tdata/tofind.php>
- *Gnomon Datenbank*
<http://www.gnomon.ku-eichstaett.de/Gnomon/en/Gnomon.html>
- *Bibliographia Latina Selecta*
<http://mvdpoel.ruhosting.nl/bibliografie/bibliografie.htm>
- *Bryn Mawr Classical Review*
<http://ccat.sas.upenn.edu/bmcr/archive.html>

The first benefit is the employment of greater data, compared with the past. Additionally, there is the possibility to integrate, to correct, to multiply bibliographical references. There are numerous projects for digital sections of classical literatures, among which, to quote a commonly used Italian literary project:

- *Biblioteca Italiana Zanichelli*
<http://www.letteraturaitaliana.net/index.html>
- *Dante online*
https://www.danteonline.it/italiano/home_ita.asp (2)

The functions of digital libraries are not different from traditional ones, with creation, maintenance and access from an online catalog to material in digital format by a web friendly interface. The digital library used today by researchers in Latin literature has been the product of projects of digitalization of the patrimony possessed by the files of maintenance (of libraries, archives, museums, universities, corporates, etc.): study and research become more accessible to the reader of Cicero, who has access in the full version to books, papers and electronic periodicals and archives on any topic. A well-known digital library of this kind, container an important section of literary texts in Greek and Latin language often frequented by researchers, are:

- *Bibliotheca Augustana*
<http://www.hs-augsburg.de/~harsch/augustana.html>
- *The Latin Library*
<http://www.thelatinlibrary.com>
- *Readme* (for a scholastic level)
<http://readme.it>

The consumer can now use numerous research providers, not only generalists like *Google*, *Yahoo* and *Bing*, but ones that use different approaches depending on objectives and area of knowledge. For example, a research provider like *Clusty* (<http://clusty.com>) organizes the results based on similar categories; *Kartoo* (<http://kartoo.com>) visualizes the researched data with the use of a graph or a map that shows interconnections among the links.

Internet offers an extended source of resources for research, compared to the recent past. There are useful resources for the bibliographical research: for example, the directory of the

- *Librarians' Internet Index*
<http://www.ipl.org/> that explores the most reliable resources online
- *Infomine*, a virtual library of digital online resources that contains links to electronic papers, databases, electronic books, mailing list, electronic catalogs for study and research
<https://library.ucr.edu/onesearch/infomine>

The use of methods and computer programs opened new perspectives for the expansion of the narrative, stylistic, linguistic, critical-philological analysis of the classical literary subjects. Computer methodologies are frequently applied for the analysis of texts, through the employment of specific philological-literary applications (Stella, 2018). The use of bipartite text-image interface allows to compare the transcript with the original and to alternate the diplomatic transcript with the critical edition reconstructed by the intervention of the author. Among the sites containing editions of classical texts employed in scientific area, some constitute a precious source of exploration and knowledge of the classical and medieval literature and civilization, according to manifold aspects:

- *Intratext*
<http://www.intratext.com/>
- *Labyrinth*
<http://www.georgetown.edu/labyrinth>
- *Project Gutenberg*
<https://www.gutenberg.org/>

Other particularly useful resources are search engines like *Argos* (<http://argos.evansville.edu>), with a lot of ancient texts, in original language and in electronic format, downloadable on computer and off-line, printable on paper. They are also used in the study of classical texts software that allow to analyze the work of an author or more authors or to examine a text or more texts simultaneously in detail, according to different perspectives: to compare the relationship among the texts, among characters, situations, to analyze the specific employed lexicon, etc.

Over time, the instruments for stylistic analysis of classical literatures have become more and more sophisticated. In the field of literary studies there are usable search engines that allow to seek some words or word series in a sentence, to find imitations, sources and models, to reconstruct the genealogy of the topics and the linguistic usage (Mastandrea, 2015). For instance, the portal *Musisque Deoque* (<http://www.mqdq.it/public/>) allows to complete researches on the whole Latin poetry from the origins to the IV century AD, with possibility to consult critical editions also. Another similar software is *Tesserae* (tesserae.caset.buffalo.edu/), an analysis engine that allows to compare the texts with literary affiliations, with an inner dictionary; it also gains information from the digital library

of the *Perseus Project* (perseus.tufts.edu) (3) edited by the Department of Classical Studies from Tufts University. The *Perseus Project* is nowadays the best free online instrument to study classical disciplines, for scientific purposes, but also for scholastic and academic didactics (Malaspina, 2014). Entering through *Philologic 2018 edition* (<http://perseus.uchicago.edu/>), manifold possibilities of query are individualized in an extended collection of Latin and Greek texts, with possibility to effect researches of single passages, visualize translations, morphological analysis, use of the Liddel-Scott, etc. Unlimited possibilities are offered to the modern researcher of ancient subjects with the aid of tools that can improve and accelerate the results of the research. If in the past it was necessary to file the single words in the text and to create a list for every necessity of every word in the context in order to create a concordance list for philological utility, it is now enough to unload a program or to access specialized portals, for instance, the *Classical Latin Text* (<http://latin.packhum.org/>), with an easy and intuitive interface. Doing a research of the concordances, for example, we will already see on the screen the source in which the researched headword appears, the verse or line of the relative context entirely brought and the sought after term underlined in red.

Apart from pricey resources, like *Bibliotheca Teubneriana Latina* or the *Thesaurus Linguae Latinae* (www.degruyter.de), we can download many programs with accessible costs that allow to effect this kind of textual researches, among these:

- *AntConc*
<http://www.laurenceanthony.net/software/antconcl/>
- *Lexicon*
<http://www.lexicon.unisi.it/public/index/index>

AntConc, developed by Laurence Anthony, is constituted by twenty software packages specialized in different operations: creation of *corpora*, research of concordances, frequencies, comparison, textual structures, conversion of PDF and Word files. The second, edited by the University of Pisa, does not need installation or coding and allows to acquire the texts, to constitute *corpora* of interests and it allows their analysis, using various functions as the creation of frequencies indexes and recurrences (Stella, 2018, pp. 63-68). The utility of such applications, pertinent to the management, maintenance and elaboration of data, is considerable: they are particularly profitable for the consumers of disciplines like the ancient Latin, medieval and Italian literature. We are expecting to see an increase in the use of literary applications of this kind in the future.

The use of multimedia technologies for the didactics of classical literary subjects

Multimedia didactics allows the use of alternative educational methods, applicable to the teaching of Greek and Latin language, literature and philology. A reflection about why this connection is profitable encourages us to rethink the role of the teacher of these disciplines as well.

Multimedia didactic technology can bring great profits to students and teachers: the use of the technology produces reflections on the development of the different forms of knowledge and learning. If we use it in a suitable way, it can provide a notable value for the teaching of

literary contents, in line with the needs of the contemporary society. Multimedia can be a way to revisit methods and techniques of the teaching Greek and Latin, remodeling contents and formality of transmission of literary knowledge. The dichotomy “teaching vs instrument” can be exceeded with the support of the virtual environment: new technologies have a potentially constructive impact on the didactic-formative practice. Computer science and telematics supply a specific value to the cognitive process: the computer is not only a technological tool, but is turned into a “cultural object” that supports traditional education, without replacing it. At school and University, new technologies are introduced to amplify and reinforce didactics, and do not replace teachers, but support them, completing the array of cognitive structures available to teachers and students (Valenti, 2010; Milanese, 2014). According to a pedagogic-functional perspective, new technologies do conform to the “multiple intelligences”, that compete to the formation and to learning of the individual, according to the well-known theory of Gardner (1983). Among the different intelligences developed by the individual, we can introduce a “digital intelligence”: the acquisition of technological competences allows to study and use different material in different ways, based on personal potential (Battro et al., 2002; Gardner, 2006). In this sense, digital technologies are effective tools for expansion of multiple intelligences. Computer and multimedia technologies are to be seen as a support for education, included in a natural way and not in substitution of the person; this approach is even more effective in the case of the teaching of ancient languages, as traditionally considered tiresome. The study of classical languages and literatures needs work on the written text and reflection on the content, so the use of computer tools can sustain this assignment. Online didactics can take advantage from a number of multimedia products that can facilitate the transmission of the grammatical, literary, philological, linguistics knowledge, etc., drawing to an environment of different media integration: texts, sounds, images, videos, animated tools, graphics. Maps and graphs facilitate the acquisition of the appropriate terminology and synthesize the key contents of a topic. Knowledge can also be communicated through digital and interactive texts in which the iconographic component has a known effective communicative value and allows an affirmative receipt of the content (Tomasi, 2008, pp.65-66). A conscious didactics of classical subjects with use of computer science and effective multimedia products allow:

- Realization of *corpora* of ancient texts (in original language, with forehead translation and possible notes of comment, etc.)
- Construction of repertoires of examples related to specific linguistic and stylistic phenomena
- Creation of exercises and texts of grammar verification
- Realization of speed textual researches inside *corpora* of Greek and Latin texts
- Presentation of multimedia itinerary for multidisciplinary detailed study
- Language drills
- Elaboration of interactive apparatus to support the lexical, stylistic, thematic learning of elements of Greek and Roman civilization and literature
- Bibliographical references and link for thematic connections
- Supply of iconographic repertoires like photos of ancient objects and monuments
- Representation of geo-cartographic materials of the ancient world
- Use of digital reproductions of manuscripts in original language

So by using web resources, multimedia didactics can also approach students with difficulty in study and understanding of the ancient languages in a better way. Study and research simulations with possibility to do online progress tests also changed the idea of obsolescence of the classical literary disciplines. Didactic potential is increasing: attending digital lessons introduces requisites of flexibility, possibility of continuous enrichment, expositive clarity, use of conceptual maps, synthesis itineraries, use of colors and symbols, three-dimensional representations, use of iconographic tools (Ghislandi, 2002). The traditional ways of University teaching of the classical subjects is therefore, moving to a digital format with didactic formulas that support the reading/listening of texts and contents. Blogs, chats, forums, posts, virtual classrooms, encourage the semiautomatic creation of spaces and groups of work even more: areas of discussion among students of the same course, transmission of further bibliographical references, news, suggestions, exchange of materials; this also makes the students more aware of the technical language, of the bibliographical sources and of the topics that need to be deepened.

Besides Telematic Universities, and after a first phase of conservatism, Italian Universities with institutional didactics are nowadays all endowed with platforms and tools for distance learning. The initial resistances were sometimes due to the inadequate attitude of the humanists towards the use of the computer mean, to the inevitable necessity to learn a minimum of technical competences to elaborate online didactic material and to use a Learning Management System (LMS), to the demand of an additional work for the construction of a virtual course. However, the courses with telematic structure in literary disciplines has widened and enriched more and more over time. Lifelong Learning is an increasing application of the contemporary society, in answer to the increasing tendency of the traditional student population to deepen the study with the online research of didactic materials. In such way, the useful tools for the teaching of classical literary disciplines do not eliminate institutional techniques: the most diffused learning are, in fact, blended e-learning, with the use of web instruments to complete the actual face-to-face lessons (Bates, 2005), and with the support of a tutor, a highly specialized professional (Ranieri et al., 2005). A lot of Italian Universities have started initiatives for e-learning development a long time ago by opening platforms for distance teaching. For example, on the platform opened by the University of Pisa and CISIAU (*Centro Interdipartimentale per il Sistema Informatico dell' Area Umanistica*) at <http://moodle.humnet.unipi.it>, we visualize the activation of numerous courses in humanistic disciplines, specifically for the classical literary subjects, for the academic year 2018-2019, Course of Greek and Latin Language and Literature, Didactics of Greek and Latin, Classical Philology and Greek Philology, Laboratory of Greek Language. The University of Rome La Sapienza has activated open online courses since 2013 (MOOC, *Massive Open Online Courses*), for a distance online formation, with the commitment to deepening potentiality of the e-learning didactics and to experiment the different available technological platforms. In the *Home page* (<https://www.uniroma1.it/it/pagina/mooc-corsi-online-aperti-tutti>), we read the objectives of this technological experimentation:

1. *Espletare il ruolo sociale di diffondere la cultura a livello globale* [Execute the social role of spreading culture on a global scale]
2. *Realizzare programmi di formazione continua* [Create lifelong training programs]
3. *Valorizzare temi legati al territorio, anche in collaborazione con enti e istituzioni locali, e diffonderli a un vasto uditorio* [Emphasize issues related to the territory, by collaborating also with local entities and institutions and spread them to a vast audience]

4. *Seguire lo sviluppo di tecniche e metodologie didattiche innovative utilizzabili poi anche 'on campus'*
[Follow the development of innovative didactic skills and methods applicable also 'on campus']
5. *Promuovere azioni di recupero orientate ai propri studenti e agli studenti delle scuole superiori con carenze nei requisiti minimi, e azioni finalizzate ad attrarre i migliori studenti delle scuole superiori*
[Promote student-oriented recovery actions, for high school students that lack the minimum requisites, and promote actions finalized to attract the best high school students]

They seem particularly fit to explain the finality of the connection of technology and distance learning:

1. To dispatch the social role and spread the culture at a global level
2. To realize programs of continuous education
3. To valorize topics connected to the territory in collaboration with corporate and local institutions, and to spread them to an extended audience
4. To follow the development of techniques and innovative didactic methodologies, usable "on campus" as well
5. To promote actions of recovery directed to University students and the students of secondary schools lacking of admittance prerequisites, and actions finalized to attract the best students from secondary schools

This would be the e-learning mission, applicable to all the areas of the didactics, also and above all to support the teaching of the classical literary disciplines.

Literary humanistic culture versus digital culture

In conclusion, it is not inappropriate to affirm that all human knowledge, has received the impression of a "digital mark". On one hand, the methodology of humanistic research forced itself to reconsider criterions, forms and methodologies by supply of the computer science, on the other hand, technology has been constantly bringing fresh air in the field of lower and higher education from the past two years, opening unexplored paths for innovative didactic tools (Gualdo et al., 2016). These ideas help creating a new profile for researchers and scholars of humanities as their relationship with computer science changes (Roncaglia, 2002). Humanities have become digital: Philosophy, History, Art, Linguistic and Literary studies have been increasingly interacting with advanced technological tools, supplying new ideas to the subject. This "Digital Revolution" invites to a reflection on the dichotomy between "Humanistic-Literary Culture" and "Digital Culture", in a constant interview favored by humanistic computer science, in which contents and methods of study are employing computer means to refine research and study objectives. This does not mean that the language of human sciences must be formalized and graphically organized in formulas like scientific language: Linguistics, Sociology, Critics and Literary Philology essays are not manuals of robotics. Equally, traditional teaching, where the student is fueled by the human relationship with the teacher, cannot be supplanted by virtual didactic methods as a whole. Projects of online didactics must then consider that technologies do not replace, but complete and integrate traditional didactics during an educational itinerary. Moreover, I believe there is a future for a closer collaboration between research and didactics and the digital world

to create a community of “Digital Humanists”. In this way, operators of the cultural patrimony can team up to protect ancient cultures, which is nowadays more and more in disadvantage because of the affirmation of scientific knowledge. For this reason we have been witnessing a consistent growth of the *Digital Cultures Humanist Heritage* in Italy in the past few years, not without delay, which has given theoretical and methodological contribution to the studies and didactics of Human Sciences. The work of a Digital Humanist, together with humanistic cultural heritage, is necessary for the creation and maintenance of the digital humanistic resources and classical cultural area: its assignment is to illustrate practices, methods, theories, application and procedures as well as computer formats for humanistic studies. The patrimony of the classical culture can be researched, represented, documented, filed, preserved and transmitted to the collectivity through technology. In Italy, the *Associazione per l’Informatica Umanistica e la cultura digitale* (AICD) unites scholars, researchers, teachers, coming from different disciplinary sectors, but united in various initiatives and interested in using tools and methods of the digital research applied to humanistic knowledge (<http://www.aiucd2018.uniba.it/index.html>). The primary aim is the protection, maintenance and exploitation of the humanistic culture, classical as well. The gap among humanistic and digital reality can be avoided, through the elaboration of a more transversal concept of culture and education (Tomasin, 2017). If Charles Snow, in his monography *The Two Cultures and the Scientific Revolution*, had already blamed the mutual incomprehension between humanistic-literary culture and scientific-digital culture of certain scholars, it is in the twenty-first century that such incomprehension appears more inappropriate and criticisable (Snow, 1959).

Notes

(1) On the computer as tool of communication and on its impact on individual and society, vd. Fiormonte et al. (2010, pp. 48-51)

(2) For a list of link in Italian and foreign digital libraries:
<http://www.aib.it/aib/lis/lpi04d.htm3>

(3) For a review of the computer tools for study of the antiquity:
<http://www.rassegna.unibo.it/index.html>

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