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# Teaching Diplomatics in 2.0 Web Environments: An Innovative Experience to Promote Interaction Among Students From Different Countries and With Different Learning Needs

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**Abstract:** This paper aims to present a project about the use of a virtual learning environment for the teaching of Diplomatics using digital technologies. The learning activities were part of a Master's course in Library science, Archival Science and Research Methodology at the Federico II University of Naples in 2011 which is a post-degree course and for aspiring or young archivists. Technologies from two projects that have been running separately in recent years were used in an integrated way. One is Rete@ccessibile which gave rise to the Moodle platform of the same name ([www.firbreteaccessibile.it](http://www.firbreteaccessibile.it)); the other is Monasterium.NET ([www.monasterium.net](http://www.monasterium.net)) which uses Web 2.0 using an environment known as MOMCa ([www.mom-wiki.uni-koeln.de](http://www.mom-wiki.uni-koeln.de)), and a tool called EditMOM, set up especially by the University of Cologne for the management of medieval charters. The teaching activities at the University of Naples were organized as part of the European ENArC project (European Network on Archival Cooperation) of the Culture Programme 2007- 2013 involving the Department of History of Federico II University, Naples, and numerous institutions from various European countries ([www.recruitdigitaldoc.org](http://www.recruitdigitaldoc.org)). The project involved also a large international working group made up of teachers of diplomatics and palaeography who in recent months have been assessing the possibility of organizing a distance learning course for the same discipline, but of an international nature.

**Keywords:** virtual learning environment, diplomatics, medieval charters, university teaching, Web 2.0

## **1. The learning environment: Rete@ccessibile a new accessible and friendly Web 2.0 learning environment for university students**

Rete@ccessibile is a project funded by the Italian Ministry of University and Research within the program FIRB (Funds for basic research). The main objective of the project has been to use the educational potentialities of web technology in order to construct a dedicated learning environment aimed at supporting intercommunication, encounter and collaboration among university students both within the same University as well as among different Universities (Italian and European).

The project has involved five Italian Universities (Università degli Studi di Roma "FORO ITALICO" National coordinator, principal investigator Prof. Lucia de Anna); Università degli Studi di Bologna "ALMA MATER STUDIORUM", principal investigators Prof. Roberta Caldin, Prof. Andrea Canevaro; Università degli Studi ROMA Tre principal investigator Prof. Roberto Maragliano; Università degli Studi di Trento principal investigator Prof. Patrizia Ghislandi; Università degli Studi di Napoli "Federico II", principal investigator Prof. Maura Striano) and a Private Foundation (Polo Tecnologico, Fondazione Don Carlo Gnocchi Onlus, principal investigator Eng. Dr. Renzo Andrich). Each of them has played a role as a distinct research unit within the project for the development of a flexible and friendly learning environment.

The web media permits on the one side, a reduction in the influence of a great number of constraints and hindrances (both spatial and temporal and personal), and on the other side, to widen and re-articulate the places and the ways of individual and group experience, acknowledging and valorising individual and collective imagination, broadening the emotional sphere, supporting the creative construction of new forms of knowledge and understanding.

The challenge has been to construct a learning environment which was capable of not only supporting formal learning but also (and mainly) to build a network of informal learning and teaching, from which

it would be possible to obtain indicators to use in the field of formal learning (Carletti & Varani, 2007). In order to do so, the project team has worked to:

- identify and study work strategies to harmonize and fully use the opportunities offered by technology and multimedia in order to foster learning and communication, through a creative employment of technologies and aids;
- identify ways to enhance different abilities of re-elaboration of personal experiences in relation to disciplinary and functional learning in order to outline a life plan (employment of autobiographical and narrative methods);
- develop a new framework on the basis of already existing learning environments in order to create the conditions for an on-line presence of individuals and groups and to support socialization and learning (Garrison, Randy & Anderson, 2003);
- envision learning spaces within which the dimension of virtualization of experience can be lived as a resource for personal enhancement on the basis on the natural propensity to interpersonal contact and communication;
- help students to engage with the virtual environment, soliciting activities which meet their needs and expectations and promoting creative agency also through game-like activities;
- involve the students in the creation of their learning environments, supporting collaboration and exchange;
- monitor all the activities and practices hosted on the learning environment, using solutions and devices correspond to the characteristics of flexibility, co-construction, openness, peculiar to web environments developed according to the evolution of the web 2.0;
- deploy means and ways to catch the traces of such experiences at the level of the lived experience, of the self-representation and of the perception of the integration between oneself and the others;
- analyze the patterns of development of web learning communities within University contexts on the basis of the frames of collaboration, co-construction of contents, shared bookmarking, shared use of specific instruments (among which wiki, blog, knowledge communities, social tagging, folksonomies, podcasting) provided by Web 2.0;
- verify the potentiality of Web 2.0 for the construction of heterogeneous web learning communities, that is communities that don't exclude the presence of persons both socially disadvantaged or with cultural differences and with disabilities (O'Reilly, 2007);
- analyze some dimensions (for instance the organizational, the individual/social one) of the learning/teaching communities under observation;
- identify cognitive, emotional and relational profiles of the students so that it will be possible to discern different characteristics concerning learning styles, ways of communication and expression, cognitive needs, by focusing on the individual stories of learning;
- monitor and appraise the quality of the learning processes of students with disabilities in different environments and operational settings, by designing, testing and implementing devices such as facilitation devices and tools supporting individual learning processes according to the specific characteristics and learning needs of each person and taking into account accessibility requirements ;
- develop devices to monitor and appraise the quality of individual learning processes, focusing both on the learning process as well as on the products of learning activities, arranging inventories of tools to evaluate different learning achievement according to individual diversities;
- construct a supportive training pathway for the e- tutor who will facilitate student's interactions and learning through Web 2.0 learning environments;

guarantee the accessibility of the learning environment to students with different forms of disability according to current EU and Italian regulations (*IMS Guidelines for Developing Accessible Learning Applications*).

According to a constructivist theoretical framework, we have tried to construct and develop a learning environment tailored for the characteristics and potentiality of single students offering learning contents and activities according in a multimodal format (audio, video, text) according to the norms

regulating accessibility for all (Burbles, 2004). Thereby providing each user (acknowledged and valued in her/his own specificity and uniqueness) with equal opportunities and possibilities to access and use learning environments and materials.

The learning environment is composed of different spaces for learning and socialization: firstly a common entrance area, a sort of virtual “hall” for the students of all the universities involved in the project as well as to the students of the universities collaborating with the project. Here the students can meet each other in a dedicated place called the “square” here they can meet informally, chat and share comments, ideas, information; reflect on their own characteristics and potentialities and identify their own learning profile through a preliminary assessment of competencies; reconstruct their personal educational pathway focusing on the most significant moments, places and spaces of their learning story (Piazza, 2010); chat, discuss in a forum, view and comment scenes from a selection of movies; construct and discuss a conceptual map focused on inclusion in order to participate to the construction of a more inclusive university culture. Secondly, there is an area specifically dedicated to university courses, each of which has a dedicated virtual classroom, this area has hosted the Master’s course in Library science, Archival Science and Research Methodology.

## **2. The teaching of the discipline: The Italian and wider European context**

Diplomatics is a science that studies documentary sources in terms of their external and internal features, so that the evidence related to legal deeds acquire complete validity and effectiveness. At the same time, it is aimed at reconstructing the production context and the various functions of the documents in the historical period in which they were produced. An ancient disciplinary tradition has led to rigorous methodologies, issues and a terminology specialized in the analysis of medieval charters, but which can be extended to all types of paper documents, even from the most recent era. Several scholars have recently suggested applying the methodology of diplomatics to the analysis of contemporary documents, including administrative ones, and to the management of digital documents. Despite the enormous potential of the discipline, it currently occupies a surprisingly marginal role within European academic and non-academic teaching structures. For this reason it is necessary to use new teaching methodologies that could highlight the potential of the discipline and make it more accessible to students.

However the teaching of diplomatics in Italy, using a range of different digital technologies cannot be considered to be currently more than experimentation. The experimental initiative has been set up within an Italian academic framework, and especially within humanistic fields which do not generally make extensive use of new methods, the Internet or e-learning for teaching purposes, with a few enlightened exceptions. In terms of Italian university teaching of diplomatics, I would even argue that there has been a degree of ‘resistance’ to the use of digital technologies. Several studies published fairly recently in Europe, both printed and online, confirm the general lack of interest in the teaching of diplomatics, although in some countries, such as Germany and France, projects are being set up on the strength of experimental initiatives with the help of digital technologies (Ambrosio, 2012).

We would like to focus here on two aspects where the above-mentioned technologies have led to an approach to teaching which is more effective than the traditional one: the organization of the materials and, the presentation of the issues and learning as a social activity, rather than learning done in isolation. The treatment of these aspects can benefit from an assessment of the data that emerged at the end of the course from eleven students who enrolled in the Master’s course. The data was evaluated within the context of various trends that emerged from the behaviour of students within the Learning community which was set up as part of the ENArC project; the community consisted of eleven distance learning students including several international students, as well as several students following other courses on the platform who were interested in Diplomatic. The students of the Learning community - young graduates and young archivists - interacted on several occasions with the students of the Master’s course on the Rete@ccessibile platform.

- Making materials, analyses and facsimiles more accessible

One of the great advantages of the Moodle platform for the teaching of diplomatics has been the chance to use a virtual space to present course materials in a more accessible manner. In particular, the opportunity to arrange a series of links to the resources in the web proved to be extremely helpful. This has encouraged research in the bibliography related to the field and in specialist journals and has roused curiosity that ensured constant updating and in-depth analysis which are essential for the discipline. Similarly, it has proved possible to guide students towards the resources of closely

connected disciplines such as palaeography, codicology and philology so that boundaries between the various disciplines can be crossed.

As regards the acquisition and vision of facsimiles of medieval documents, the new technologies have heralded a turning point with regard to the traditional approach. The chance to observe a wide range of documentary evidence helps students to gain real insight into the forms of medieval documents. It can highlight the fact that each medieval document, even in its typical formal structure, still remains a very complex and peculiar study material, presenting an infinite number of formal and legal variants which need to be understood and evaluated. These forms also need to be assessed in a 'European' context.

The Rete@ccessibile platform makes it possible to guide the students towards reliable online facsimiles. From this viewpoint, due to its structure, the Monasterium.NET portal proved to be an extremely useful teaching resource. High resolution photographs, which can be enlarged to the desired size, not only allow the original document to be read but also be accurately analyzed, both on the recto and the verso. They offer an immediately accessible and attractive version of the document as it is kept in the archive. Indeed, Monasterium.NET is one of the most substantial documentary archives in Europe available online, both for medieval documents and documents dating to the early modern era. It contains more than 250,000 high resolution photographic reproductions of documents which can be downloaded free from the portal.

- Social learning, emerging from the small group

As already mentioned the Rete@ccessibile platform ensures that the learning of the individual student no longer takes place in isolation but becomes a social process. In the specific case of the course in diplomatics, this aspect has made it possible to extend the student group, which no longer consists of the class group that meets periodically, but also includes students from previous academic years and students from other European universities. This extension of the group in time and space has had a practical effect through the creation of materials produced by the students which remain online, and which are perfected by students on subsequent courses or by distance learning students. In this way, each student can take part on the basis of their experience and the skills they have acquired (Richardson, & Swan, 2003).

There have been many different chances to meet or encounter others within the context of this extended group: these include the wiki pages, the collaborative activities within the platform and, lastly, EditMOM, the application that makes it possible to describe the existing documentation in Monasterium.NET thanks to Web 2.0 and to codify the data thanks to XML language (Burkard, 2009). In all these occasions for encountering others, it proved possible to create communal working environments made up of individuals working in different times and places (Stahl, Koschmann & Suthers, 2006). The students have therefore been involved in wider communities of other students who had access to the Rete@ccessibile courses and the community of other European students, archivists and researchers which revolves around the Monasterium project.

The forum has been particularly successful, not just because it has enabled informal discussions - with the teacher as well - regarding tests, materials and the concepts of frontal lessons, but also because it has led to an interesting dialogue with students from a university in the Czech Republic, an initiative still in progress.

Another aspect that has roused the interest of students has been the chance to be able to collaborate freely with preparing a glossary according to a timescale that suited them. The glossary enabled the young students to work together easily because it is similar to the approach to work of Wikipedia, and introduced them to the crucial need to assimilate the highly specialist terms involved in the discipline. This meant that some of the contents of the discipline and many activities that took place during the lessons of diplomatics, given within the platform and with EditMOM, were perceived as familiar and essentially quite reassuring. This approach is definitely one of the first steps towards creating the right didactic feedback between the teacher and the student. It provides a suitable environment for students to gain belief in their own capacities and in the possibility of developing their skills in a field which might be wrongly perceived today to be too far removed from their own experience and cultural horizons.

The project Rete@ccessibile has come to the end but its deliverables will be at disposal of different users in order to be adapted and implemented for multiple applications and uses in higher education. The outcomes of the experience here described offer us interesting guidelines for the integration on the learning platform of functions and activities specifically dedicated to special fields of studies such as diplomatics but also other ones,

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