The digital edition of the *Statuta comunis Vicentie* of 1264

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Abstract

This article investigates the issues to be faced while producing a digital edition of a representative medieval text: *Statuta Comunis Vicentie* (*1264*). *Statuta comunis* are collections of civic rules very common in Northern Italy since the twelfth century. We are dealing specifically with the ones of Vicenza, a town near Venice. *Statuta* were usually organized in a single or multiple *codices*, including the collection of the civic rules, matched and allotted in big chapters (*libri*) according to the subject. Another fundamental characteristic is the constant review of the original text in different periods, generally due to changes in the government or in the organization of the city. Therefore, the most relevant matters to deal with are: first, description of metadata; second, structural analysis of the text; third, the markup of the additions and amendments; and fourth; identification of specific semantic values, in particular personal names, organizational names and names of places. This article outlines the reasons for choosing XML/TEI for the project, how to address the four matters listed above and how the chosen standard can be customized to treat the peculiar aspects of this text according to the traditional editing practice.

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1 Introduction

This article illustrates the initial results of the digital edition project within the wider research program named *Le fonti normative nell'Italia del basso medioevo*.[1] Many universities participated in it, thus enabling a rich exchange of perspectives highlighting different regional realities.[2] Through comparisons and on the basis of disciplinary traditions the project goal was to develop a common framework for the creation of digital editions of normative medieval sources.

2 Source Features

The statute is one of the main documents of the communal age in Italy. Usually, it consists of a handwritten codex which collects the laws that a 'comune' laid down in different ways (Cammarosano, 1998, Ch. 2.4). A single law could be indicated as *capitulum*, *rubrica*, or *statutum*, causing the entire codification to be named after the plural: *statuta*. The *statuta* were usually divided into different subjects (*de civilibus*, *de criminalibus*...) named *libri*. To make it easier to find

information in them, there was a *rubricarium*—i.e. a list of all the books (*libri*)—and the correspondent *capitula* within the text.

These *codices* were often of fine workmanship which emphasized the solemnity of their content. However their main characteristic lays in their being constantly revised and updated over time, thus making it possible to consider them a sort of 'stratigraphy' (Caprioli, 1981, 1988, 1989). Usually there are no indications regarding the specific date when the additions or modifications were made and several different critical evaluations are necessary to approximately state their chronology. A first initial body of the oldest laws can be identified by their reference to the *consules*, a collegial magistrature that governed the 'comune' in the twelfth century before the predominance of the foreign 'podestà' (i.e. a ruler chosen from outside the municipality) in the thirteenth century. In addition, the oldest laws were usually written using first person pronouns, recalling the original *breve* or oath that the magistrates were obliged to swear. The subjective form was gradually, but noticeably, substituted by an objective declaration, which stands as a typical act of a communal entity or the direct emanation of a law.

The genesis of the *statuta* might be straightforward or quite complex depending on the various political/urban events on the one hand, and the different manuscript traditions on the other. In this heterogeneous context, the *Statuta comunis Vicentie* of 1264 stand out as an example of great interest. Even in its various stratifications, the text is well structured and all its parts can be visibly identified making it suitable for a digital edition. The edition analysed here is based on manuscript 564, preserved by the Biblioteca Civica Bertoliana in Vicenza. It is a *codex optimus*: the unique surviving copy of the text of the *Statuta* of the thirteenth century. It is in a precarious state of preservation, mainly because many sheets have been trimmed and the ink has vanished in many places. There is only one print edition of this codex made in 1886 by Fedele Lampertico. In this edition, Lampertico published the *Statuta* of 1264 (re-edited for this digital edition) together with the *Banna et ordinamenta* of the 'comune' of Vicenza dated 1275, even though

from a codicological point of view they are evidently distinguished within the manuscript. [3] The *Statuta comunis Vicentie* were compiled during the government of the 'podestà' *Rolando de Englesco* in 1264. They form the greatest part of the codex (cc. 1–88) and are divided into four books with a preface which lists all the *viros nobiles, providos, et discretos* that together compiled the *Statuta* (Cracco, 1988). The first book is dedicated to the *sacramenta* of the main authorities of the 'comune', the second to the civil ruling exclusively governed by the 'podestà' or by his judges or by his *consules*, the third to penal justice. The fourth book together with the first is quite rich. The first part of this book is dedicated to the laws in force regarding the various professions and the organization of the urban spaces, while its last pages describe the relationships between Vicenza and the surrounding cities.

The books are coherently organized in separate *rubricae* introduced by a title, with chapters clearly distinguished by paragraph indicators. The text is composed in *littera textualis* by a single hand, named 'mano1' (that is 'hand 1'), with additions of three other hands:

- A hand named 'manoA' writes in *littera textualis* making additions and substitutions. The same 'manoA' probably composed the 'Statuti Interpolati' (cc. 88v–89r). This section has been named this way in the nineteenth century edition of the *Statuta* (Lampertico, 1886, p. LVII). Considering the reference in the text to *dominus Guidonis de Nigro* (c. 88v) as the 'podestà' of the 'comune' of Vicenza, this scribe most likely worked after 1265 (Cracco, 1988, p. 121), and not beyond the beginning of the fourteenth century as suggested by palaeographical analysis.
- A cursive hand that can be dated between the end of the thirteenth or the beginning of the fourteenth, named 'manoB', generally comments and provides glosses in the *rubricae* of 1264, sometimes only defining a title.
- A cursive hand, named 'manoC', rarely writes and is datable on palaeographical basis to the end of the sixteenth century.

3 How to Choose a Standard

Considering the manuscript features, structural issues and text stratification, the best solution for a digital edition of the *Statuta* appeared to be XML (eXtensible Markup Language). But the question remained, which are the best encoding solutions that can be used for a source of this kind inside the world of XML: whether to adhere to a standard or to create an independent system. Within the Italian context, especially in diplomatics and historical science, the general trend of adhering to standards is not followed as much as it is in other countries. This is not only due to a certain cultural particularism, but also for specific historical reasons. The most relevant digital encoding standard of the mid-1990s in the field of humanities was certainly the TEI (Text Encoding Initiative), [4] whose first versions were expressed in SGML (Standard Generalized Markup Language).[5] The first established version called P1, was released in 1990s. This was followed by P2 (April 1993), while the first P3 was released in 1994; but the final revision of P3 (called P4 beta) was made available in May 1999. [6] It was a long process. In 1999 Michele Ansani, introducing the project of the CDLM (*Codice Diplomatico della Lombardia Medievale*), [7] described in an article what the TEI model meant at that time: 'a complex system of rules enabled to *normalize* and unify the practice of representing textual phenomenona in electronic format'. After outlining the trend of TEI towards the codification of literary texts, Ansani continued with his reflections: 'The guidelines of a standard encoding system for every kind of text will always be, in this perspective, inadequate and unsatisfactory for somebody (or many). [...] Therefore, we will need to find diversified and more specific solutions.' (Our translation, Ansani, 2000) These considerations lead to the necessity and the consequent development of an independent encoding system able to manage—on a diplomatic analysis level—the complexity of the medieval Lombardy parchments.

This was a reasonable choice considering what TEI was in 1999. The burden of SGML on the initial versions of TEI was heavy considering that the first XML 1.0 Recommendations were published in 1998,

and the second version 1.1 on the 6 October 2000. [8] Moreover, P2 still employed SGML parsers, and using DTDs were the only option to constrain encoding (the customization of which was a particularly difficult procedure). [9] It was clear right from the beginning that to make the complex DTD sustainable it had to be modular, and to this purpose, the TEI adopted the so called ODD system (One Document Does it All). This system had the great advantage of distributing the DTD code in separate modules which were recalled when needed by the main DTD. For a non-skilled user, the entire DTD appeared as a mass of files identified by a variety of names and extensions (.dtd and .ent) for each group of entities without having a simple and intuitive means to manage the entire thing (Burnard and Rahtz, 2004). The first version of P3 had the same problems and the digital humanists who used the TEI in the 1990s had to deal with it, if only to decide, as Ansani did, that it was not suitable for them.

At that time TEI was difficult to work with for normative and documentary medieval sources, not only because it had been conceived for literary analysis, but also due to the difficulty in extending it and mastering its modularity. For these reasons Michele Ansani chose to give the priority to diplomatics and developed an independent encoding system (Ansani, 2002, 2006). The effort to establish a strong ecdotic in the 'digital arena' produced a DTD far more flexible than TEI and with a totally mixed content model, many elements and a smaller number of attributes. [10]

The CDLM project was a great success: the number of edited documents grew over time and new editions of historical collections are being produced. Another great feature of CDLM is that HTML is not the only output, but the whole XML code is totally accessible and highly documented. Therefore, gradually, the DTD of the CDLM became for the Italian context a standard to look to for its qualities, ease of availability, accessibility of code, and extensive documentation in Italian.

In light of the positive results, many medievalists edited different kinds of documents using the DTD developed for the CDLM or, very often, a customized version of it with the flexibility to go beyond

the structure of the typical Lombard notarial document and to revise the order of the textual elements.[11]

A meeting held in Verona in December 2005 on literary text and documentary editions demonstrated that even today the majority of Italian solutions for medieval sources are based on CDLM.[12] For example, during this meeting, Lorenzo Tanzini (University of Florence research group) illustrated a special version of this DTD in which the elements corresponded to the main parts of the regulatory text (*incipit*, *explicit*, *invocatio*, *proemium*, *publicatio*, *liber*, *rubrica*, *capitulum*, *additiones*, *reformationes*, *clausulae*, etc.), while we proposed a reconsideration of the suitability of TEI for this purpose.

An initial experimental markup of the statute with TEI Lite (Burnard and Sperberg-McQueen, 2005) and the subsequent introduction of new elements dealing with various encoding issues lead us to consider the P5 version of the Guidelines. From that moment, we considered the possibility of employing P5 for an edition of medieval sources. Two innovations were crucial to this change in our perspective: the first concerns available tools. Originally the ODD architecture of TEI was managed by an online tool named the 'Pizza Chef'. [13] The critical approach was correct, but the online tool was inadequate to manage the modular system. Moreover, its graphical interface, claiming to be as attractive as its name, had the opposite effect for the community of Italian palaeographers and medievalists. Today the tool is Roma, whose functionality, based on new and more effective languages to describe the documents, facilitates much better modular management. [14]

The interface clearly divides the work in different steps, and it is possible to select only those elements needed (grouped in customizable classes) as well as to add new attributes or elements as necessary. With Roma, the most important thing is that each work session can be saved in a single XML file. Once the desired result is achieved it is possible to generate automatically and in different formats not only the DTD, but also all the documentation featuring the analytical description of each element.

The second innovation lays in the fact that TEI has become an open source project. Even if TEI always claimed to be open to the contributions of the international scientific community, for many years it seemed to be 'centralized and managed by a restricted group of researchers' (Burnard and Sperberg-McQueen, 2005, p. 211). For this reason the great innovation of the open source project with a free software repository hosted on Sourceforge must be congratulated. [15]

Considering these two innovative aspects, TEI can be employed both by scholars more bound to traditional methods and lexicon, and by those who need to investigate more specific issues relating to these primary sources. For example, during the above mentioned conference in Verona, Lorenzo Tanzini suggested that an element <dispositio>,[16] already included in the CDLM DTD, could be used to mark the initial part of the *rubrica*. But a similar result can still be achieved in TEI by using the <div> element to define the text segment and qualifying it with a type attribute (and, if necessary, with a subtype). Instead of <dispositio contenuto="ufficio"> we can therefore encode it with <div type="dispositio" subtype="ufficio">.

If a scholar does not agree with this solution, there are alternatives. It would be possible to choose Italian and Latin tags using a vocabulary common to the discipline creating an XSLT that automatically translates the elements into TEI, becoming a data exportation format. This complication can be easily avoided in TEI P5 by integrating new elements in a simple and documented manner. For example, we tested and determined that the element <dispositio type="ufficio"> can easily be added in a P5 created with Roma for the *Statuta* encoding. Considering all these opportunities and the possibility of adding new elements to TEI during the execution of the work, we opted for TEI P5.

4 Encoding

All that was left was for us to determine if and then how the TEI satisfied the following four essential needs: (1) description of the digital resource and

the manuscript with adequate metadata; (2) structural analysis of the text; (3) visualization of additions; and (4) semantic analysis.

4.1 Metadata

Metadata represents the 'electronic title page' of our digital edition, and it is defined in the *TeiHeader*. From this point of view, the P5 version offers substantial improvement as it separates the descriptive form of the digital resource from that of the manuscript. With reference to the digital resource description, we simply used <fileDesc> and the corresponding nested items.

Regarding the manuscript description, we gave great importance to <sourceDesc>. Within this item we referred to the first printed edition with <biblFull> (fully structured bibliographic citation), while with <msDescription> we described the *Statuta comunis Vicentie* and the ms. 564 preserved in the Bertoliana library, giving a precise codicological description.

All the detailed information on the manuscript is described within specific elements.[17] For the physical description of the manuscript we split <physDesc> into several elements: <objectDesc> which contains <supportDesc> (support description) for the type of written material, number and dimensions of the manuscript's folia with the corresponding protective leaf, the different foliation and its state of preservation; and <layoutDesc> (layout description) which describes the *mise-en-page* of the folia and the kind of ink used. Finally we used <handDesc> (hand description), to indicate the different hands operating on the codex, <decoDesc> (decoration description) and <additions>, to refer to other formal aspects such as the presence of flourished initials or little hands or wavy lines at the text margin and <bindingDesc> to describe the cover.

4.2 Structure

This level of encoding represents the formal divisions of the text. The root element is <text>, which comprises: <front>, used to outline the prologue of the statute and <body>, with the full text body of the *Statuta comunis Vicentie* of 1264.

```
<text>
<front xml:id="proemio">
<div type="data">
<head>
<date when="1264-00-00">Anno Domini millesimo ducentesimo sexagesimo quarto, indictione prima</date>
</head>
</div>
<div type="incipit">
<head>Incipit proemium ad <title>Statutum comunis Vicentie</title>
</head>
</div>
<div type="preface">
<p>A summa potentia Creatoris...</p>
</div>
</front>
<body>
<div type="libro">...
<div type="rubrica" xml:id="rub_I.3">
<head>Capitulum de una pecia panni de scarleto ponenda pro palio</head>
<div type="capitolo" xml:id="cap_I.3.1">
<p>Item statuimus quod quedam pecia panni de scarleto de sex brachiis ponatur pro palio in festo sancti <milestone n="2" unit="carta_recto"/>Michaelis post terciam,...</p>
</div>
</div>
</div>
</body>
```

Inside <body> lays the actual text structure which is quite clear, allowing the easy naming of elements which were specified by adding different values to attributes. We have typed the <div> elements respectively with the values *libro*, *rubrica* and *capitolo*. In this way, we created a far more flexible structure than by using numbered divisions (div0, div1...).[18] This is a clear example of how markup focused on attributes combined with elements is generally more flexible. Moreover, the attribute values have been chosen for practical purposes. We used English for standard values and several indications in Italian to specify the partition, the page, and positions in the text.

The titles, usually written in red ink (therefore called in Latin *rubricati*), are marked with the element <head>; the line break has been marked by the empty tag <lb/> (line break), while the element <milestone>, which includes the number of the *carta* and the values "carta_recto" or "carta_verso", was used to indicate the page that follows. Another element used to structure the text body is <list>, which allows highlighting the sequence of different items, each of them within the tag <item>, which in the *Statuta comunis Vicentie* are normally introduced by a special red para-sign, very common in this kind of sources, called 'piè di mosca'.

4.3 Additions and integrations

This markup level shows contemporary or later variations to the 1264 text. The element <add> (addition) indicates the presence of signs of correction or additions to the text body. The attribute @hand, with the values: "mano1", "manoA", "manoB", and "manoC", indicates the hand that worked on the manuscript and made the integration or modification. Further attributes show the precise position of the addition (place="sopralinea_continuando"[19] or "intralinea_continuando"[20]) and if any special type of sign of addition was used (rend="segno_inserzione"[21]).

<div type="capitolo" xml:id="cap_I.4.46">
<p>Item nullo modo cogam aliquos Vicentie vel eius districtus, vel creditores quod emant aliquid a debitoribus nisi ex voluntate libera, <lb/> exceptis venditionibus pro comuni Vicentie, <add place="intralinea_continuando" hand ="manoA"> (</add> nec cogam aliquem vel aliquos mutuare comuni, nisi de propria voluntate. <add place="margine_interno" hand="manoA" rend="segno_inserzione">Additum est vel volun<lb/>tate consilii maioris.</add> Cartam <lb/> vel cartas supra comune Vicentie nemini faciam, nisi in consilio maiori facta vel facte fuerint de voluntate consilii, vel maioris <lb/> partis.<p/>
</div>

To indicate that some parts were deleted we used the tag <del> (deletion) with the attribute @hand to refer to the hand and with the attribute @type to specify in which way the correction or modification occurred (for example type="depennato",[22] "espunto",[23] "cancellato_per_lettera_sovrascritta",[24] "cancellato",[25] "dittografato",[26] etc.), as in the example below:

<div type="capitolo" xml:id="cap_I.4.26">
<p>Item iuro quod pro salario mei regiminis presentis anni accipiam et habebo solummodo <del type="espunto_depennato" hand="mano1">trimillia</del> <add place="sopralinea_continuando" hand="mano1" rend="segno_inserzione">duomilia et quingentas</add> libras denariorum Veronensium <lb/> suprascripto modo et forma, ... Et quod non ponam nec poni faciam, nec permit<lb/>tam poni ad aliquod consilium quod mihi aut alicui de fami<del type="espunto" hand="mano1">a</del>-liam mea aliquid concedatur, sive donetur ultra quam superius dictum est. <lb/> Et si ad conscilium positum fuisset per aliquem vel aliquos me inscio, statim cum sciero infringam et anullabo, et si <lb/> contrafecero amittam et amittere debeam ipso iure de salario meo dictorum <del type="depennato" hand="mano1">trium millium librarum.V.C</del> <add place="margine_interno" hand="manoA"> duo millium et.V.C</add> librarum denariorum Veronensium et <lb/> id quod mihi vel familiei mee donatum vel concessum fuisset que sint comunis Vicentie...</p>
</div>

4.4 Semantics

The fourth, and until now the last encoding level, is dedicated to such content like antroponimies and toponimies in order to create, upon completion of the edition, indexes of names and places. TEI encoding offers a wide set of indications for even the most complex of places: the element

<placeName> is subdivided into <district>, <settlement>, etc. Similarly, names are marked with <persName>, divided into <forename>, <surname>, etc.

During the Middle Ages, however, the ways of naming people and places changed, resulting in many ambiguities and uncertainties. The problem is that these names contain more than one expression, and it is not easy to determine their correct hierarchical order. For example, a certain place indicated or mentioned in a document from the eleventh century can be composed by the simultaneous indication of *massa*, *fundus*, *locus*, *plebs*, *vicus*, etc. without a clear indication to the reader of the territorial relationships between these entities. [27] Sometimes the author was probably unaware of their territorial relationships when writing the document. Although, we have not found an example of this in the first two books of the *Statuta* encoded so far, we know that such case is likely to occur even in texts of the thirteenth century.

The same situation exists for names of people. The first attempt to regularize surnames started with many uncertainties at the end of the twelfth century and surnames became fixed only for a small portion of the population by the end of the thirteenth. A real system of regular surnames became stable only in the sixteenth century. In addition, a person could be indicated by a chain of patronymics with no precise rule in regarding its order for a long time, or a patronymic could have been an early example of a surname.[28]

Therefore, it is first necessary to handle these segments without any consideration of the kind of classification or hierarchy: a flat markup. People's name are marked with the element <persName> without using the specific nested element and without linking the onomastic indication to the person for this reason. Within our context, this is possible only at the end of the edition, using the nominative singular name, which we decided to indicate with the attribute @regular.[29] For a person's name we also employed @type to refer to the role or a special apposition appearing on that occasion.

```
<list type="puntata_piedimosca">...
<item><persName regular="Bonomus
Arnasini">Dominus Bonomus Arnasini
</persName> </item>...
<item><persName regular="Yrech de Burgo"
type="iudex">Dominus Yrech <placeName
regular="Burgo">de Burgo</placeName>
iudex </persName></item>...
</list>
```

Similarly, the names of places are encoded within the <placeName> element and inside it is nested <settlement> to indicate the various components. The nominative singular, suitable for further use, is indicated within <placeName> by the attribute @regular. For the few places of certain identification such as Vicenza, Padua and Venice, in order to give a first set of indications for a clear identification of the toponimies, we add to the <placeName> the @key attribute.

In most cases, the indication consists of two members: one is general and the other specific. In similar cases, <settlement> is intuitively included in the broader toponomastic indication. If other more complex indications should occur at the same time, we successfully experienced the nesting or juxtaposition of <settlement> sequences. <settlement> comes with the attributes @regular and @type, which indicates the type of place (e.g. a church, a street, etc.).

The systematic use of @regular to extract the occurrences in an alphabetical order allowed us to mark the complete reference to a person (apposition included) and all the complete references to places, including meaningful prepositions, which are often of great interest to historians. [30] It is possible to refer to @regular values for the semiautomatic composition of lists of variants. [31]

```
<div type="capitolo" xml:id="cap_I.14.1">
<p>... et postea per civitatem <placeName
key="Vicentia"> <settlement type="strata"
regular="Strata Maior">in Strata Maiori</set-
tlement></placeName> <lb/> cridaverit in qua-
tuor locis, ... </p>
</div>
```

Finally, the last element used at this level is <orgName> (organizational names), with no further attribute, to mark institutions such as the Church of Rome.

```
<div type="capitolo" xml:id="cap_I.4.32">
<p>Item quod habebo et teneo mecum meis
expensis duos milites et tres iudices, quorum
nullus esse debeat de <lb/> aliqua civitate, que
non sit in recta comunancia, vel de qua <del
type="espunto" hand="mano1">u</del> aliqua
pars sit extorris vel rebellis <orgName>Romane
Ecclesie</orgName>;...</p>
</div>
```

5 Workflow

We codified and edited the first of the four books of the *Statuta comunis Vicentie* following the described guidelines. All the results and materials of the project are updated and available online at: http://vicenza.statutacommunis.org.

Even if partial, these results are available for the scientific community to view. There is still a great amount of work that can be done to improve our encoding. We would, however, like to emphasize that although this edition took into consideration the results of a national study, it was developed looking at the wider international context.

Our practice in using Roma showed that different traditions can be accommodated. With our encoding system we were enable to reflect the main structural features of the *Statuta comunis Vicentie* and to manage additions and integrations. We also experienced that with Roma further analysis levels can be added.

Over the past few months we presented the results of our project at several conferences, creating interest as well as receiving many observations which helped us to correct different aspects of our encoding.[32] Despite the work we still have to do, what really matters is the possibility that our experience will re-open the debate in Italy on the use of TEI for the digital editions of normative medieval sources.

Encoding the first book took a long time, but thanks to experience acquired in the process and to suggestions and feedback provided by our colleagues, we have now a stable methodology and homogeneous criteria for the rest of the work. Upon completion of the encoding of the other books, we will complete the work on semantics by sorting lists, identifying people and places, and finally we will produce the indexes.

The complete edition deserves a better web site than the present one; we thus intend to implement a special visualizing system that would enable different types of visualizations of the text using different XSLT and CSS style sheets based on the same XML source, thus considering different scholarly approaches to the *Statuta comunis Vicentie*.

6 Conclusions

The new theoretical and practical perspectives embodied in P5 have been the touchstone for our project. What is really important to us was the ability to go from an experimental phase with limited resources to the publishing of a significant part of the *Statuta comunis Vicentie* online, making the codex and the related materials fully available to others. We expect the entire publication to be completed within a short period of time.

The digital edition of the *Statuta comunis Vicentie* of 1264 represents an attempt to synthesize the consolidated Italian practice on this subject with a different international approach.

We feel that we have proved the possibility of adopting TEI version P5 for the digital edition of statutory sources. The acknowledgement of TEI P5 as a reference standard opens the door to new editions and makes the comparison between different experiences easier.

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Notes

1 Research Program of National Interest (PRIN 2003, Programma di Ricerca di rilevante Interesse Nazionale) *Le fonti normative nell'Italia del basso medioevo: censimenti, edizioni, ricerche*, coordinated by Professor Gian Maria Varanini (Verona University).

2 The Universities of Florence, Verona and Milan (Cattolica) played a role in the project.

3 The text of 1275 comes in two booklets at the end of the manuscript: 1 quaternion (cc. 92–99) e 1 binion with the last two sheets missing (cc. 100–101) (Lampertico, 1886).

4 See http://www.tei-c.org/.

5 See http://www.w3.org/MarkUp/SGML/.

6 For the different versions see: http://www.tei-c.org.uk/Vault/.

7 See http://cdlm.unipv.it/.

8 See http://www.w3.org/TR/1998/REC-xml-19980210 and http://www.w3.org/TR/2000/REC-xml-20001006.

9 It is the most common scheme in academia, even if it is not the most flexible, such as XML Schema (developed by W3C consortium) and RelaxNG (developed by OASIS). See: http://www.w3.org/XML/Schema/ and http://www.oasis-open.org/committees/relax-ng/.

10 The names of elements of this DTD corresponded to the indications given in the *Vocabulaire International de la Diplomatique*, Valencia, 1994.

11 A strong influence of the DTD of CDLM can be found for example in the encoding scheme adopted in the digital edition of the treaties between Pisa and the Midi. See http://compass2.di.unipi.it/midi/.

12 L'edizione digitale dei testi letterari e delle fonti documentarie. Il problema della rappresentazione del testo, Verona University, December 2005. Before this conference the only complete digital edition of the statuta of a town was the Statuto comunale di Bologna of 1376: http://www.sma.unibo.it/statuti/Bologna1376v0/statutiBolognesi1376.html.

13 See http://www.tei-c.org/pizza.html.

14 See http://tei.oucs.ox.ac.uk/Roma/.

15 See http://tei.sourceforge.net/.

16 In medieval documents the term *dispositio*, indicates the clause where 'the donor or promulgator firmly declares his purpose ("I hereby decree" or "I hereby give")'. See: 'diplomatics' in *Encyclopædia Britannica Online*: http://www.britannica.com/EBchecked/topic/164633/diplomatics. For the use of this term as element in CDLM see: http://cdlm.unipv.it/progetto/codifica-xml.

17 For further details please see http://vicenza.statuta communis.org/.

18 See Ch. 4.1.3 in http://www.tei-c.org/Guidelines/P5/. We would like to thank Gautieur Poupeau for this indication.

19 Above line_following.

20 Line space_following.

21 Sign_addition.

22 Crossed out.

23 Expuncted.

24 Erased by a superimposed letter.

25 Cancelled.

26 Dittographied.

27 E.g. (Bologna, 7 March 1099): 'in territorio Bononiensi infra plebe Sancte Marie Pago Celeri in castro Varignana iudicaria Motinensi'. See Feo, 2001, n. 456.

28 An example considered by Wandruszka is the one of *Jacominus Guidoni Lambertini* also named *Jacobinus Lamberti de Mundo*. Both *Mundo* and *Lambertus* were important ancestors, both names appeared as patronym in chain of names, both were sometimes used as surnames. But at the end of the thirteenth century only the surname *de Lambertinis* was firmly established (Wandruszka, 1995, p. 606).

29 We added this attribute customizing our encoding project with Roma. We decided to name it @regular to differentiate it from the previous P4 @reg. See: http://www.tei-c.org/Guidelines/P4/html/ref-NAMES.html.

30 They help in understanding how space, borders, communities etc. were perceived. E.g.: <placeName regular="Marchia">extra Marchiam</placeName>.

31 Using <nym> and <nymlist>. See: http://www.tei-c.org/release/doc/tei-p5-doc/en/html/ND.html#NDNYM.

32 Beside the conference in Verona—see fn 12—our project was shown at the first international atelier, *De l'archive à l'open archive: l'historien et internet*, promoted by the Laboratoire de Médiévistique Occidentale de Paris (LAMOP), Université de Paris I, and by Reti Medievali and the École française de Rome. See: Zorzi, 2007; Siciliano, 2007; Salardi, 2007. We also presented a poster at *Digital Diplomatics*, Munich, March 2007 and at *TEI 20 Meeting*, Maryland, November 2007. We warmly thank Arianna Ciula, Gautier Poupeau and Malte Rehbein for their suggestions.