

TEI and Scholarly Digital Editions

How to make philological data easier to retrieve and visualise

Chiara Martignano
chiara.martignano@unifi.it
University of Florence, University of Siena

THE IDEA

1. In the past few decades the number of TEI-encoded scholarly digital editions (SDEs) has risen significantly, as a consequence a big amount of philologically edited data is now available in a machine-readable form. One could try to apply computational approaches, in order to further study the linguistic data, the information about textual transmission, etc. contained in multiple TEI-encoded digital editions. The problem is that **retrieving philological data through different TEI-encoded SDEs is not that simple.**

2. Every TEI-encoded edition has its **own markup model**, designed to respond to the philological requirements of that particular edition. For this reason, it is difficult to **identify** the same types of **data** through different digital editions **unambiguously.**

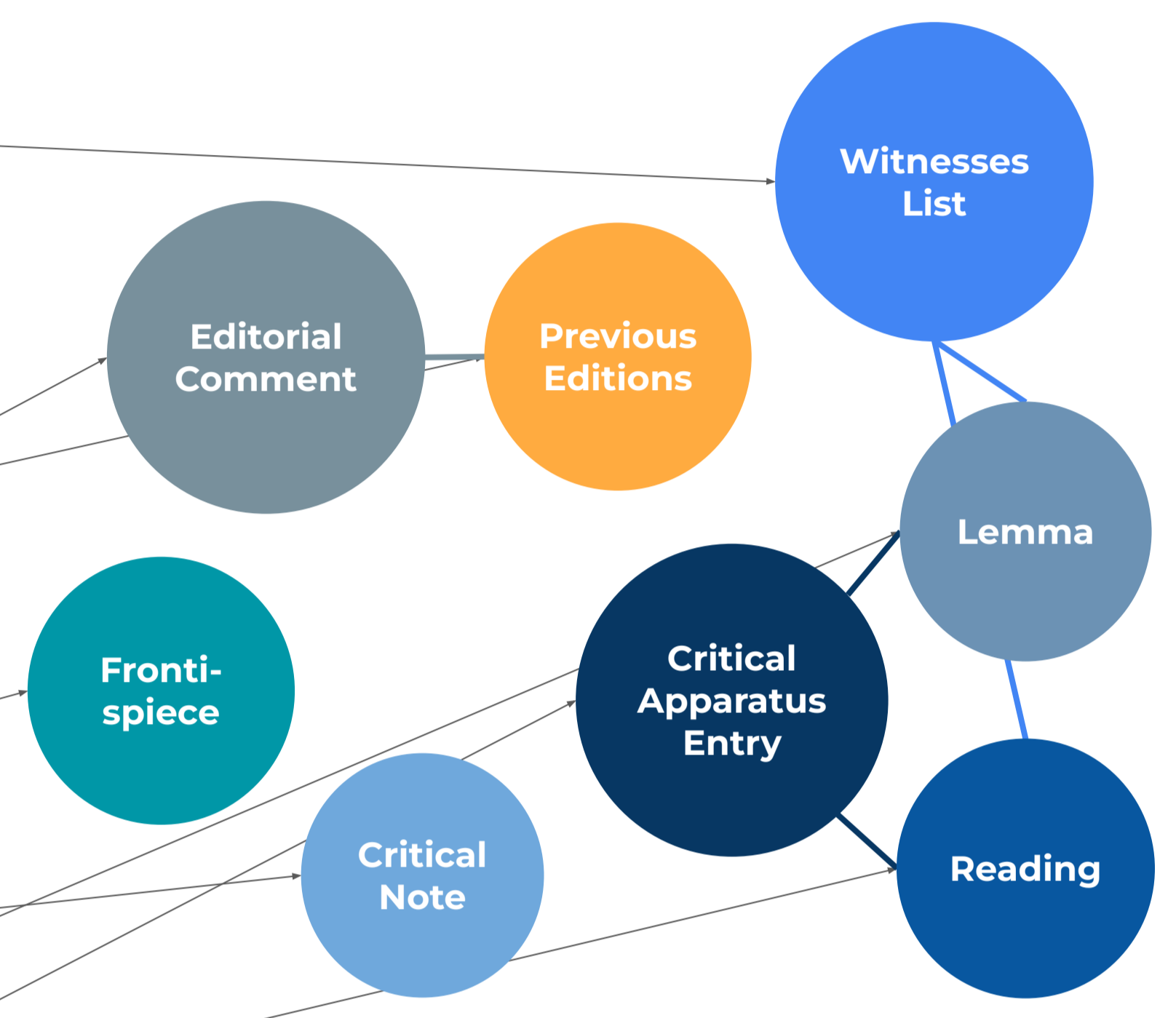
A MARKUP LAYER

```
<sourceDesc>
  <listWit>
    <witness xml:id="B">
      <msDesc>
        ...
      </msDesc>
    </witness>
  </listWit>
</sourceDesc>

<text n="De rebus siculis carmen" subtype="edition_text" type="verse" xml:id="text_carment">
  <front>
    <titlePage>
      <titlePart> Il <hi rend="italic">De rebus Siculis carmen</hi> di Pietro da Eboli
    </titlePart>
    <p> Questa edizione critica è stata curata da Fulvio Delle Donne: poiché il ms. è quasi certamente idiografo, si è deciso di rispettarne la grafia. ... </p>
    <fw place="top-left" type="edizioni">
      <hi rend="bold">Principali precedenti edizioni</hi>
    </fw>
    <listBibl xml:id="Edizioni" next="#Studi">
      <biblStruct xml:id="Engel1746">
        <monogr>...</monogr>
      </biblStruct>
    </listBibl>
  </front>
  <body>
    <div type="Frontespizio" n="e" xml:id="frontediz">
      <fw place="top-middle" type="frontespizio" rend="bold">PETRUS DE EBULO</fw>
    </div>
    <div type="Liber" n="I" xml:id="pde_lib_1">
      <div type="Particula" n="I" xml:id="img_95v">
        <lg>
          <note n="1"> Qui il verso, come anche in altre occasioni, è lasciato incompleto dall'autore: forse volontariamente, per imitazione di <persName ref="#Virg">Virgilio.</persName>
        </note>
        <lb facs="#PE_line_95v_21" n=" " xml:id="PE_lb_95v_21"> Tradituf <persName ref="#Aug"> Augusto</persName>
        <app xml:id="app2">
          <lem>
            <add change="#FDD">coniux</add>
          </lem>
          <rdg wit="#B">
            <del change="#FDD">coniunx</del>
          </rdg>
          <note n="2"> <del>coniunx</del> coniunx B: emend.</note>
        </app>...</l>
      </div>
    </div>
  </body>
</text>
```

Example taken from the digital critical edition of [Petri de Ebulo De rebus siculis carmen](#), edited by Fulvio Delle Donne.

AN ABSTRACT MODEL FORMALISED AS AN ONTOLOGY



3. A possible way to simplify the retrieval of philological information from multiple digital editions is to **link** them to **a same model** that is able to **represent SDEs on a more abstract level.** This abstract model could be formalised as an **ontology.** Then inside different TEI-encoded editions it would be possible to add a further **markup layer** that binds each abstract component to the corresponding class of the ontology.

POSSIBLE APPLICATIONS

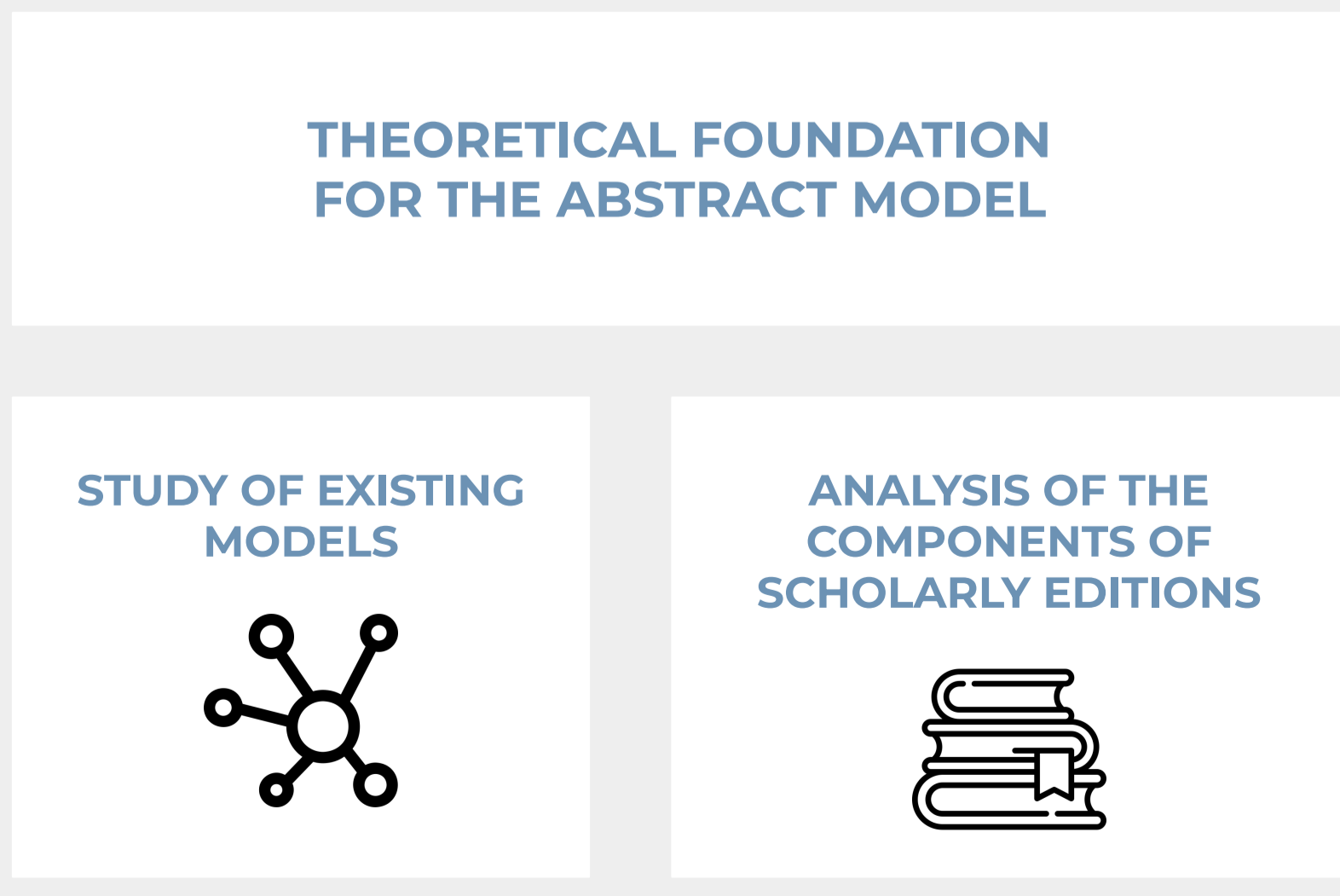
Testing the **completeness** and **expressiveness** of existing ontologies for the description of scholarly digital editions. See [2].

Queries across different TEI-encoded editions, with RDF and SPARQL. See [1], [4].

Easier **development of general purpose tools** for visualising SDEs thanks to a common abstract model. See [5].

CURRENT STATE OF THE RESEARCH

4. There are already some ontologies that were created for representing [scholarly edited texts](#) and, more specifically, [the critical apparatus](#). My goal is to **use** these **existing models**, as well as the **TEI guidelines**, to **analyse different scholarly editions** (both digital and printed) and **identify all the abstract components** of a scholarly edition. The final goal of this preliminary research is to lay a **theoretical foundation** for an abstract model that can help make philological data more visible and easier to retrieve.



REFERENCES

- Ciotti, Fabio, and Francesca Tomasi. 2016. 'Formal Ontologies, Linked Data, and TEI Semantics'. *Journal of the Text Encoding Initiative*, no. Issue 9 (September). <https://doi.org/10.4000/itei.1480>.
- Daquino, Marilena, Francesca Giovannetti, and Francesca Tomasi. 2019. 'Linked Data per le edizioni scientifiche digitali. Il workflow di pubblicazione dell'edizione semantica del quaderno di appunti di Paolo Bufalini'. *Umanistica Digitale*, no. 7 (December). <https://doi.org/10.6092/issn.2532-8816/9091>.
- Doerr, Martin. 2003. 'The CIDOC Conceptual Reference Module: An Ontological Approach to Semantic Interoperability of Metadata'. *AI Magazine* 24 (3): 75-75. <https://doi.org/10.1609/aimag.v24i3.1720>.
- Eide, Øyvind. 2014. 'Ontologies, Data Modeling, and TEI'. *Journal of the Text Encoding Initiative*, no. Issue 8 (December). <https://doi.org/10.4000/itei.1191>.
- Martignano, Chiara. 2021. 'Un modello concettuale per favorire lo sviluppo e il riutilizzo di app per edizioni digitali'. *Umanistica Digitale*, no. 10 (September): 71-88. <https://doi.org/10.6092/issn.2532-8816/12620>.