

# Corso di Laurea Magistrale in Scienze del Linguaggio

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#### Tesi di Laurea

# When the Future meets the Past

Technology as restorer and mentor of human heritage

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# Introduction

When the Future meets the Past: technology as restorer and mentor of human heritage analyses the role of technology in education and its effects on students' learning process. In particular, the dissertation aims at introducing textual criticism in schools, proposing a methodology to teach Mediaeval works with textual criticism's instruments like **T.E.I.** or **Voyant Tools**.

There are several reasons for the development of this topic. Firstly, the principal purpose is to give new value to literary texts, not focusing just on their themes or structures but emphasizing their metamorphosis over time. This reason builds the foundations of the study, in particular the introduction of this topic in a classroom through a simple but attractive method. This aspect brings also to the analysis of the effectiveness of technology in the educational environment and its introduction in the curricula.

The dissertation is divided in two sections, **philological** and **pedagogical**, both connected by the same needs to give new value to literary texts. On one side, the first section highlights philologists' role to recreate the pedigree of a manuscript and the importance of technology to assist philological researches (see Chapter 1). On the other side, the second section discusses the importance of text in literature studies, not only focusing on their thematic and structural analysis but also introducing the philological role of text restorer in the classroom, using technology to appeal students' attention.

The dissertation is structured in four chapters:

1. The **first chapter** analyses **the influence of technology in philology** and its role in the **reconstruction of old manuscripts**. In more detail, the chapter explains the role of the **Lachmannian Method** and the **stemma** 

- **codicum** to recreate the pedigree of a text, and the connection between all the sources;
- 2. The **second chapter** focuses on **the romance genre and its structure**, using two Middle English texts, *King Horn* and *Havelock the Dane*. On the one hand, *King Horn* is analysed on a **structural level**, comparing its three manuscripts and their linguistic evolution through their narrative styles, versification and different dialects. On the other hand, *Havelock the Dane* is analysed on a **thematic level**, focusing on the hero's journey, the importance of courtly love and the value of political power. These elements will be used in the methodology to teach Middle English texts using computers;
- 3. The third chapter discusses the integration of textual criticism in the classroom to teach students the reconstruction process behind a text and their presentation in digital form. The analysis focuses on the role of computers in the classroom, the qualities of the text and their effects on the educational environment. Finally, the chapter closes with an examination of two textual criticism instruments, T.E.I and Voyant Tools;
- 4. The **fourth chapter** introduces a **methodology** to teach *King Horn* and *Havelock the Dane* with the **implementation of computers**, in particular **T.E.I.** and **Voyant Tools**. The method is divided in didactic units; each one analyses teachers' roles, students' purposes and the effects of computers in the learning process.

This dissertation analyses in details the role of philology in the reconstruction of old manuscripts and its inclusion in the learning environment. In particular, it provides students with a new method to learn literature that avoids the learning by rote and stimulates their reasoning and digital skills. This dissertation will demonstrate the usefulness of technology and its consequences for the inclusion of textual criticism in literary studies.

#### CHAPTER I

# The Role of Digital Philology

# The bond between Technology and Textual Criticism

This chapter will focus on the relationship between philology and computers for the reconstruction of ancient manuscripts to understand not only the linguistic evolution of a community but also their habits in a specific historical moment (see Chapter 1, Paragraphs 2 and 3).

Philological studies arise with the intention to rediscover ancient civilizations and their connections with the modern world through the restoration of manuscripts, including the investigation and understanding of available written and hand-downed oral texts (Lollini 2011). In the beginning, the use of computers has been limited on specific study fields, in particular exact sciences such as logic, mathematics and all the disciplines that require a precision that only specific machines are able to offer (Burdick 2012). Therefore, the development of *Digital Humanities* has stimulated scholars to apply technologies in philological researches (See Chapter 1, Paragraph 3).

# 1. The Digitalization of Philology

# 1.1 The different factions

The latest developments in technology have reevaluated the traditional philological approach and philologists' possibilities to discover human historical and linguistic evolution. The current technology-driven methodologies find their historical and cultural foundations in disciplines that belong to humanities, including philology, until their estrangement from automatism due to the endowed strong latitude (Salemans 2000).

The effect of computers divided the philological universe in two factions:

- Philologists who considered the use of internet as a design concept conceived to degrade individual human values in favour of impersonality, anonymity, and crowd identity (Lollini 2011);
- 2. Philologists who embrace the effectiveness of computers in research as a **discipline's signal of restoration** (Lollini 2011).

In this scenario, digital philologists conceive the technological improvements not as an annulment of tradition but a renovation of it<sup>1</sup> (Liu 2012). The digitization of texts and the application of specific tools for manuscripts reconstructions do not abandon tradition, but embrace it to make it operative (See Chapter 3, Paragraph 3). For instance, the transposition of documents into digital form shows the role of philology as a restorer of culture and its interest for the progress of ancient linguistic studies and the analysis of structure data (Terras et al. 2016).

Raben (1966) demonstrates the influence of technology in enhancing the human experience, emphasizing:

<sup>&</sup>lt;sup>1</sup> As discussed by Liu (2012), the inclusion of technology in a vast share of humanistic sciences has been seen as a hindrance for the own disciplines and their qualities in researches. The divisional status has slowed down the interconnection between the computers and the humanistic disciplines, mostly because of the critical gap that divided both sides.

Our interests include literature of all times and countries, music, the visual arts, folklore, the non-mathematical aspects of linguistics, and all phases of the social sciences that stress the humane. When, for example, the archaeologist is concerned with fine arts of the past, when the sociologist studies the non-material facets of culture, when the linguist analyses poetry, we may define their intentions as humanistic. (Raben 1966)

Computers are introduced to simplify the philological necessities the same way archaeologists or scholars use their infinite database to facilitate their researches (Orlandi 1990). As a result, modern researchers created new programs to modernize the traditional approach of the humanistic knowledge, "generating not just texts (in the form of analysis, commentary, narration, critique) but also images, interactions, cross-media corpora, software, and platforms" (Burdick et al. 2012).

Computers might be considered not only for text writing or information collection, but also as reconstruction sources able to redefine the philological necessities (Orlandi 1990). Furthermore, the great amount of data collected in the last decades has permitted to approach to a vast amount of information that philologists could have barely accessed before, enlarging the tools' features for a more critical approach (Terras et al. 2016). In other words, computers provide philologists with a new idea of reality, improving researches to preserve any information.

As opposed to the innovative wave, the opposite faction sustains that computers cannot entirely substitute philologists' critical thinking, highlighting how software designed to recreate the genealogical process of a manuscript or collect data are not able to provide a complete critical methodology. As explained by Fiormonte (2012), software may not perfectly analyse a manuscript but just the surface elements. For instance, historical and social backgrounds can influence

authors' decisions and determine the relevance of some. He defines these documents as **artefacts of human knowledge**<sup>2</sup>:

Both material and cognitive artefacts produced by humans are subject to the influence of its environment, culture, and the social habits of the individual and group that device and make use of them. The artefact influences and at the same time is influenced by its context. (Fiormonte 2012)

Cultural and historical situations can affect the writing process of a book within a specific environment that modern instrumentations are not able to identify. Fiormonte (2012) understands that the role of philologists should not be secondary but dominant in the process, adding that their critical approach is necessary to produce a faithful image of the linguistic and historical context in a specific time.

The connection between computer and philology increased the methodology effectiveness and the accuracy of the results but only on a technical and outward level (Salemans 2000). Since the introduction of internet, philologists have benefited from the technological improvements in their researches, in particular with its implementation as information and documents sharing tool.

<sup>&</sup>lt;sup>2</sup> [e.d] The introduction of this concept is attributed to Soviet psychologist **Lev Semyonovich Vygotskij** (November 17, 1896 – June 11, 1934), who conceived human psychology as the development of the interpersonal connections and actions between human beings and the social and cultural environment. At the basis of Vygotsky's conceptualization, there is the idea that the cultural and/or historical situations in a specific environment can influence the psychological development, through the instruments available in that particular moment. Vygotskij understood the implications between culture and psychology, investigating the social origins and evolution of psychological phenomena. The use of *artefacts*, such as tools, books and papers, enables the developing of activities and concepts, which contribute in the evolution of human beings as mental entities with a role in the surroundings. Fiormonte in this specific case contextualises this statement indicating technology as "a part of the culture, not a cause and effect of it", deflecting scholars for being too busy to define a discipline and its impact.

#### 1.2 The achievements of Father Busa

The first philologist to anticipate the bond between technology and philology was Father Roberto Busa<sup>3</sup>. He used an IBM computer to produce an index verborum of all the words contained in Saint Thomas Aquinas' literary corpora, totalling around 11 million words in Medieval Latin. His researches not only facilitated textual criticism's results but also activities like writing and reading (Di Febo 2014). The use of an American IBM engine to convert each text into punched cards that alphabetize words according to their graphic forms indicates a remarkable step for philological investigations, understanding the great capacities of computers in collecting data. Father Busa's implementation of the IBM in words' collection pushes scholars to create new methodologies able to include computational analysis for the identification of manuscripts (Winter 1999). Philologists started creating databases able to improve the literary corpora with computational systems. For instance, language academies in Europe have used computers to create dictionaries and collect literary material available for a vast audience, like the operative programs for the **Trésor** de la Langue Française website and its work in building up French literary material or the Dutch Lexicology in Leiden.

The efforts made by Busa and the application of modern technology in the philological system have boosted scholars to revaluate the previous achievement in philology (Winter 1999).

<sup>&</sup>lt;sup>3</sup> [e.d] Historian of philosophy and linguist, **Father Roberto Busa** (November 28, 1913 – August 9, 2011) is universally recognized as the pioneer of informatics linguistics, thanks to his philosophical formation and the knowledge of classical and modern languages (Latin, Greek, Jewish, Arab, French, English, Spanish and German) and his theological studies. His literary corpora includes more than two hundred publications from essays, articles, congresses, and more. Some of his most important publications are: La terminologia tomistica dell'interiorità. Saggi di metodo per una interpretazione della metafisica della presenza (1949); Sancti Thomae Aquinatis Hymnorum ritualium varia specimina concordantiarum. Primo saggio di indici di parole automaticamente composti e stampati da macchine IBM a schede perforate (1951); Index thomisticus (1974-80); Concordantiae Senecanae (in collab. con A. Zampolli, 1975); Fondamenti di informatica linguistica (1987); Thomae Aquinatis opera omnia cum hypertextibus in CD-ROM (1996).

#### 1.3 The effects of technology

As noticed by Stella (2007), the introduction of technology in the philological studies has generated consequences on the methodology, because of the instrument great capabilities. Therefore, the great efforts in collecting a large amount of data, the possibility to produce rapidly hypertext able to expand the knowledge behind a text and the precision and accuracy of the instrument explain the reconstruction process using a more accurate toolkit. As he writes:

Quantity, relationality, interoperability and multimedia. Those characteristics can produce consequences in the identification of the general objectives in a particular research, which can be considered as an opportunity for the critical edition. As a consequence it might take into consideration the scientific necessities, which are usually ignored or hidden by printed editions not for scientific but for technical reasons<sup>4</sup> (Stella 2007)

The application of these principles in philological researches supports the possibility to produce a critical analysis, considering technology as a necessity for the discipline growth. The technological impact has not convinced the entire philological school, who consider "electronic publishing incunabular, energetic and exiting [but] surrounded with exaggeration, ignorance, and skepitcism" (Shillingsburg 2004). The rapid evolution of computers and the implementation of new software in the market has slowed down the progress in creating a strong connection between technology and philology.

Instead of focusing on the complexity of computers, scholars like Busa have embraced its proprieties and applied them to the discipline, discovering an

<sup>&</sup>lt;sup>4</sup>[e.d] [Quantità, relazionabilità, interoperabilità, multimedialità. Queste caratteristiche producono conseguenze anzitutto nell'individuazione degli obiettivi generali dell'edizione, e possono essere colte, a mio avviso, come un'opportunità per consentire all'edizione critica, quale che sia, di tener conto di esigenze scientifiche che vengono abitualmente trascurate o occultate dalle edizioni a stampa per motivi non scientifici ma tecnici]

instrument able to offer good results in a short amount of time. Shillingsburg (2004) contests philologists who are tied to tradition, explaining how:

Linking in any electronic hypertext is accomplished by someone noticing something and creating a link or by some program identifying Boolean similarities and constructing links automatically [...]. This is not bad. I am not sure that I think there is an alternative to it. But it does raise the question, does it not, about whether the editorial work has been objective? Isn't that, after all, the argument for putting all the materials forward with as little critical judgment? (Shillingsburg 2008)

The development of the World Wide Web and documents' availability invites scholars to reconsider the philological tradition and question the objectiveness of the discipline (Shillingsburg 2004). The unlimited access produces a loss in the critical objectivity and the validity of materials for the investigation. For instance, the digitalization of works such as the French chansons de gestes or the Italian cantari facilitates the analysis of the text with digital images of the manuscripts but lacks of critical approach (Shillingburg 2004).

Digital philology suggests a reconceptualization of the discipline and its methodologies based on the idea of an **unfestern Text**<sup>5</sup> (Ita. *testo fluido*) to connect the different variants of a singular work. This concept is centred on the reconstruction of old manuscripts and its changes over time. For instance, the lexicon, the structure and the plot can indicate the historical framework and the cultural and social status or explain the metamorphoses in the texts (Bruce 1993). A text can contain modifications that changed the original version and display a different work, containing some aspects that the original author did not write in the original work.

<sup>&</sup>lt;sup>5</sup> Bryant (2005) defines it as "a fact, not a theory. [...] [It is] any literary work that exists in more than one version. It is 'fluid' because the versions flow from one to another. [...] Fluidity is inherent both in literary texts and in the process of writing" (Bryant 2005)

#### 2. The Lachmannian Method

#### 2.1. The structure behind the Method

The researches made in the last decades have created new methodologies to implement computers in manuscripts reconstruction. In particular, they focus on the principal method to determine the linguistic and historical evolution of a text. This process, known as the **genealogical method** or **Lachmannian method**, introduces the possibility to simplify the restoration of a text following the pedigree affiliation of different witnesses. The method was firstly introduced with the intention "to represent from a sufficient quantity of good manuscripts that text which can account for them all, which needs must be either the original itself or come very close to it" (Lachmann 1817).

The method is named after the nineteenth-century German philologist Karl Lachmann<sup>6</sup>, suggesting that it is a result of Lachmann studies and publications. However, the method is not the outcome of Lachmann's studies but of several text genealogists like Gaston Paris and Paul Maas, who used and reformulated his fundamental ideas in order to be more practical than theoretical.

The principle at the foundation of Lachmann's theory is the possibility to edit a manuscript as a critical work, in not only copying witnesses but also examining and classifying the available texts. This method is based on the identification of the common errors in the various manuscripts and their relationship with original text for the reconstruction of the hypothetical piece, known as the **archetype**.

Before introducing the phases, it is necessary to understand what constitutes a

<sup>&</sup>lt;sup>6</sup> [e.d] **Karl Konrad Friedrich Wilhelm Lachmann** (March 4, 1793 – March 13, 1851) was a German philologist and critic, mostly known for his essential contributions to textual criticism and the introduction of the genealogical method. Professor at the Friedrich Wilhelm University, he devoted his life to the research of language (especially of Old and Middle High German) and literature. He laid down the rules of textual criticism and delineated the phonetic and metrical principles of Middle High German in early works of 1816–17. His clarification of his rigorous method in a number of works published between 1820 and 1836 led to the establishment of a school of textual criticism that gained many adherents.

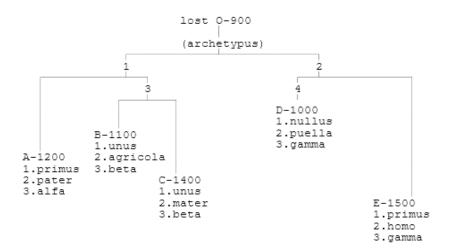
good manuscript and which aspects must be followed. At first glance, the text must be found, copied and compared to establish its prominence and its role in the reconstruction process (Trovato et al. 2014). This pre-analysis phase is essential to determine the manuscripts' relevance in the process. In case the manuscript under considerations reveals to be not relevant, it can contaminate the interconnections of the stemma codicum and produce a false archetype. Lachmann envisions the philologist behaviour not only as the application of historical and linguistic principles but also as the individual able to understand the different texts and approach them differently depending on several elements such as author and publication period (Lachmann 1817).

The method is divided in three phases:

- 1. The first phase of the method called **recensio** (Lat. *recensere*; count, enumerate) and consists in the consideration of handwritten materials' validity for the inclusion in the genealogical tree. Lachmann imposes this phases as **sine interpretatione**<sup>7</sup>, in which philologists must not include their subjectivity to avoid contaminations (Avalle 1961);
- 2. The second phase is based on the **stemma codicum**, a tree with branches that represent the secondary readings that contain the errors and roots that stand for the hypothetical archetype (Avalle 1961).
- 3. The third is called **emendatio** and it is the result of the editors' theoretical and subjective evaluation and their errors' recognition through a grammatical, stylistic and metrical analysis of the work (Trovato et al 2014).

incoherent representation of the manuscript's genealogical patterns.

<sup>&</sup>lt;sup>7</sup> As highlighted by Avalle (1961), the role of the editor in the restoration process is to distinguish the classification of errors from the subjective establishment of their role, in favour of a more neutral approach. The lack of interpretation in the process is essential in order to produce a loyal representation of the text, without any possible contaminations from philologists. The *recensio* does not necessitate a subjective analysis of the manuscript, because the preliminary removal of the errors can eliminate sections that are important for the stemma codicum, giving birth to an



The phases of recensio and emendatio indicate the more theoretical approach to the pedigrees' reconstruction, while the stemma codicum represents the central element of the process. Its centrality is the product of the objectivity involved in the progression and the genealogical relationship between lost manuscripts and their surviving copies.

# 2.2 *The role of errors*

The Lachmannian Method builds its foundations on the analysis of errors and all the mechanisms behind their formation. Errors are generally the products of writers' behaviour, or the combination of external factors that can easily distract them and produce a different body of work (Rossi 2003). For instance, human mistakes can unconsciously change manuscripts' structure, hindering researchers' analysis. In particular, mistakes like **haplography** or **dittography** can generate changes that influence the text general structure (Rossi 2003). These cases open the door the **errors' selection**, in particular the ones that are considered essential for manuscripts' restoration (Mass 1972). Errors must not be confused with **involuntary mistakes** that are irrelevant in the restoration process, because they are the effect of a psychological mechanism that influences copyists

during the writing session.

Maas (1972) explains the role of errors in the Lachmann's Method, indicating the useful ones to produce a good representation of the original text. He identifies them as **leitfehler** or **guiding errors** (Ger. *leiten* and *fehler*, to guide errors), which direct scholars in the understanding of the descendants of the texts and the selection of the manuscripts. Errors can be distinguished into **separative errors** and **conjunctive errors**:

- 1. **Separative Errors** indicate the **independence** between two or more witnesses, because they are not correctable by supposition. Maas explains how the independence of witness B from witness A is determined by the presence of errors in the latter A that the philologist assume cannot be detached by hypothesis in B. In this way it is demonstrated how B cannot derive from A because of the **lack of repetition** in A (Mass 1972);
- 2. Conjunctive Errors indicate the manuscripts that can be gathered together despite other witnesses because they contain repetitions of the same error. Therefore, they could be dated back to a common manuscript (Mass 1972).

The distinction clarifies the role of errors in the reshaping of manuscript linguistic evolution. However, Bédier finds some difficulties in the evaluation of manuscripts using errors because of the continue modifications made by authors over the years and the consequent diffusion of different versions (Trovato et al. 2014). For this reason, he decides to employ a **bon manuscript**<sup>8</sup> able to recreate an accurate document and not an artificial copy. Maas (1972) and Contini (2014)

<sup>&</sup>lt;sup>8</sup> Bédier conceives **the bon manuscript** as an alternative solution to the Lachmannian **recensio**, able to reconstruct both formal and historical coordinates in the manuscript, with the intention to enrich its interpretation in favour of a more correct reconstruction from the linguistic and cultural points of view. It is not secondary to remind how the French philologist envisioned the codex optimum as the basis of a rigid classification of manuscript (Trovato et al. 2014).

criticize Bédier's approach, highlighting how the lack of criticism in a philological reconstruction could undermine the validity of the text itself. Even if the text has a good evolution, the amount of certified documents about a single work makes its reproduction difficult. This means that there is too much material and not a good methodology to put some order in the big chaos behind the reestablishment of old texts.

#### 2.3 An example of stemma codicum

Salemans (2000), hypothesises a fake stemma codicum (see **figure**) to indicate the reconstruction process behind a lost text called "lost O-900". The stemma is characterized by **lines of descent** that end with characters A, B, C, D, and E matched with a date (A-1200, B-1100, C-1400, D-1000, E -1500), indicating both **sigles** and **end nodes**., The lists of lines at the bottom of each number indicate each version. The stemma indicates that the original lost text was composed in 900 A.D. and was copied two times by two different writers, who generated version 1 and 2. Afterwards version 1 was copied into the lost version 3 and in 1200 into the known version A. In 1300 and 1400, lost version 3 was copied into the surviving versions B and C, etc. The same reasoning can be done for the other line of the second lost work and the arrived copies of it.

The process shaped by Lachmann represents a hypothetical step forward in the genealogical reconstruction of old manuscripts, "defining how to detect scribal errors and then to construct stemma of versions [...] in order to discover which text was the earliest and hence the best" (Bowman 1990).

<sup>9</sup> [e.d] It is important to mark that the diagram showed in this dissertation has been modified for explanatory reasons. The one showed in Salemans' work include elements that have not been discussed in the paragraph and that can obstacle the understanding of the topic. This specific stemma includes in its simplicity all the elements that have to be analysed in order to understand the methodological process behind manuscripts restoration. However, it is important to mark how the following representation is not an exact historical image of how the surviving versions arrived in the philologists' hands. In other words, stemmata and their processes need to be conceived as a hypothetical route to the original copy.

In addition, Salemans (2000) identifies errors at the basis of textual analysis, demonstrating the evolution and permitting to go in reverse until the possible original text. He explains how:

It can happen that a variant reading is so-called accidental reading or accidental. Than the variant is not determined by the layer, but by writing peculiarities of the copyists. For instance, copyists very often have their own ways to use capital and small letters, orthographical or spelling systems, language (dialects!), etc. An accidental reading is so heavily copyist bounded, but agreement in accidental readings must be considered as coincidental. Accidentals do not contribute to the revelation of relationship between the texts versions. To distinguish accidental reading from non-accidental readings, we call the non-accidentals' relevant or text-genealogical readings (Salemans 2000)

Despite the method stands on strong fundamentals, its application could generate mistakes that can change the perspective of the original script (Trovato et al. 2014). For example, some specific components such as incorrect handwriting or simple misspelling could compromise a manuscript, causing a loss of forcefulness and making the entire work invalid. The classifications of relevant mistakes guided researchers to track not only the genealogical process of each manuscript or fragment but also to establish the linguistic environment in a precise historical period.

# 3. When computers meet stemmata

#### 3.1 Pasquali's Disagreement

Bryant's fluid text reconsiders the application of technology in the Lachmannian Method to simplify the collation of the existing variants of a text (Bryant 2005). However, Pasquali (1974) points out how Lachmann's method is "renouncing since its birth [on] the practical examination of the manuscripts' tradition of an author" (Pasquali 1974). In particular, he explains that the Lachmannian Method has not considered the manuscripts' background and the influence of variants like the cultural and social situations. These aspects could have influenced the approach used by the author at the time, leading to versions that are not connected with the original manuscript (Barillari 2016).

Pasquali considers digitalization of the Lachmannian Method harmful, undermining the possibility to reconstruct the genealogical lineage of a text.

The postulation made by Pasquali perceives the impossible application of the Lachmannian Method on a digital situation. The precision around computers does not consider philologists' subjectivity, avoids any critical approaches in the reconstruction process. Furthermore, computers' analysis avoids aspects that are essential for the analysis. For instance, the limitations first computers had in character-set codification, especially for upper and lower-case letters. Different techniques like the addition of asterisk or punctuation have been used to indicate not only upper-letters but also accented and other characters unrelated to the Roman alphabet (Calzolari 2014). The programs used to recognize the words in books are not able to decode citations and their position inside the text. Even the current standard techniques are pointless to reconstruct the early format of the text, transforming it into a watered-down version of a journal, which is not applicable with the linear structures used for instance in poetry, dramas and manuscript composition (Calzolari 2014).

 $<sup>^{10}</sup>$ [e.d] [Rinuncia già in principio e ancora più nella pratica a esaminare tutta la tradizione manoscritta del suo autore]

### 3.2 Pole's Rules for Digital Stemmata

Pasquali's postulations have consequences on the validity of the Lachmannian Method, in particular for the classifications of errors and their influence on the creation of the stemma codicum. Trovato (2014) underlines how:

No programme [...] adapted to the needs of textual criticism can produce a stemma capable of serving the purpose for which the stemma was invented in the nineteenth century to identify the readings that are most likely to be the original ones among hundreds and hundreds of equally acceptable variants, and do so on the basis of a restricted series of manifested errors. (Trovato et al. 2014)

Despite the possible correctness of the common-error method, the principle would not be able to determine some essential passages between the original readings and the ones that might have been changed. It is not able to offer scholars precise stemmata able to trace back the connections between different manuscripts (Trovato et al. 2014).

In opposition to Trovato and Pasquali's visions, Poole (1974) states that the application of computers can facilitate the analysis of the stemmata, avoiding the critical approach in favour of a technical classification. Before introducing the process, he highlights two main difficulties in the stemmas' determination:

1. The derivation of the stemmas, which a computer cannot define by itself. In these cases, the critical approach can determine the validity of the text and its role in the genealogical process. Some aspects such as the origin of the variations and the dating must be discussed and evaluated critically (Poole 1974);

2. The contamination of the manuscripts, because some fragments could contain elements derived from unrelated works, making them difficult to judge. They can undermine the validity of stemmata and complicate the distinction of "the signal of the true stemma from the noise of the contamination and coincident variations" (Poole 1974).

Pole's aim is the development of a methodology to distinguish the **signal** form the **noise** and compare a wide amount of data (Poole 1974). The digital reconstruction of the stemma is possible considering the textual variants, independently from their erroneousness, to produce an **unoriented stemma**, which defines the connection to the archetype (Froger 1970).

Poole (1974) defines the basic rules to determine a stemma using computers:

- 1. The procedure should be able to **manage an input of all the relevant variations** of the examined text (Poole 1974);
- 2. The relationship between the various texts (from the general variations to the hypothetical texts) must be **evident** in the stemma (Poole 1974);
- 3. The computer must be able to manage independently any operation without the help of humans, controlling any possible anomaly that can obstruct the identification of the stemma (Poole 1974).

Poole (1974) emphasizes how the digital modification of documents demarcates the role of philology as a restorer of culture, with a strong interest and efforts in the progress of ancient linguistic studies, the analysis of structure data, and more.

#### 3.3 Pole's Analysis with Algol 60

The application of computers in textual comparisons imposes a switch from a literary form to a numerical code, in order to be technically comprehended and assimilated. Poole (1974) uses a program called **Algol 60** to transform the readings into code numbers that are saved in the database, lately collected and analysed. Algol 60 compares all the saved elements and marks the differences between them. For instance, there are six documents with the following word:

- 1. Stout Cortez, when with eagle eyes (BaseT)
- 2. Stout Cortez, when with evil eyes
- 3. **Proud** Cortez, when with **eagle** eyes
- 4. **Bold** Cortez, when with **evil** eyes
- 5. **Proud** Cortez, when with **lethal** eyes
- 6. **Bold** Cortez, when with **lethal** eyes

Taking into consideration the first line as the Base Text, the changing words are **Stout** (1) into **Proud** (2) in the third line and **Bold** (3) in the forth. The analysis continues progressively with the changes of the second word **eagle** (1) into **evil** (2) in the second sentence and **lethal** (3) in the fifth. The computer disposes of the classifications in a numerical organization to understand the sentences' changes:

Document:	1	2	3	4	5	6
Reading 1:	1	1	2	3	2	3
Reading 2:	1	2	1	2	3	3

At the basis of the stemma, there must be an open system so that the computer is able to recognize the irregularity. In this **table**, it is visible how the readings cannot fit a stemma codicum, especially for the minimum quantity of data

available. The production of adequate outcomes is possible if the analysis contains an amount of readings that can recognize the anomaly and produce a satisfactory stemma automatically. Only in these cases, the software would disclose the irregularity and evaluate it, classifying them from higher to lessen and excluding the ones with the peak numbers of glitches. The procedure is repeated more than once to obtain a precise classification, eliminating the irrelevant ones and collecting the similarities, which will be used to check the possible pedigree. The final stage is a comparison of the last readings and their variants: in case the level is zero the documents share the same source or it can be a copy of the same work. This makes them non-judgeable and reduces the number of analysable works to reconstruct the original text.

Pole (1974) demonstrates the possible conversion of a stemma codicum in digital form using the Algol 60. As marked by Andrews (2012):

Stemmatology is central to the methods of digital critical edition. It is the form of text analysis that lies at the heart of classical philology, and it is the type of analysis that, if done more correctly and sympathetically, could be of great help to mediaeval philologists whether of the old school or the new. (Andrews 2012)

Readings must not be contaminated by personal choices, which can produce results that are unrelated to the original. Therefore, the introduction of computers can be judged positively. In fact, technological devices have been employed mostly to introduce a more mechanical approach rather than critical.

Timpanaro (1974) expresses his concerns on the digitization of stemmatics and their influence in text restorations, taking into consideration the multitude of medieval texts available and the resurfacing of many manuscripts.

Salemans (2000) questions the possibility to create the genealogical trees' representation can be created using any existing variant, making it not "clear and

repeatable, [and so] unscientific" (Salemans 2000). The methodological shortage pushes him to reflect on the advantages of computer and their objectivity in researches, which was expunged with the generalization and inclusion of any possible variant in the analysis. The consequences could damage the entire process and generate a lack of objectivity for the implementation of computers. Salemans (2000) compares the fourteen **Lanseloet van Denemarken** manuscripts using a software to recreate the work genealogical process and the shared common elements. The mechanical process has been able to scrutinise thousands of variants in a small amount of time, avoiding critical approaches. The results of his researches revaluate the role of computers in philology. In fact, the results exposed by Salemans identify a more detailed production of data in transcription and collation. He embraces the traditional route started by Lachmann, giving new viewpoints for the application of computers in the restoration of ancient literature.

#### **CHAPTER II**

# King Horn and Havelock the Dane

The groundbreaking impact of the Medieval Romances

This chapter aims to illustrate the dynamic nature of a literary text (see Chapter 3, Paragraph 2.1), using two manuscripts of the Matter of England: *King Horn* and *Havelock the Dane*.

The story of *King Horn* is analysed on a **structural level**, comparing the differences in the three manuscripts. In particular, the fulcrum of this section is the narrative style, the versification and the dialects used in the text.

The story of *Havelock the Dane* is analysed on a **thematic level**. This section explores three particular aspects: the journey of Havelock, the differentiation of social and political powers, and the effects of secondary characters (in particular Grim, Goldebour and Levee) in defining the main character's persona.

These stories have been chosen for the pedagogical analysis that will be discussed in Chapter 4. The texts will be used to analyse the process the linguistic evolution in *King Horn* and the interpretation of *Havelock the Dane's* themes in a modern key.

#### 1. The Chivalric Romance

#### 1.1 What is a Romance?

The word **romance** indicates the story between two lovers, hindered by hilarious and dangerous situations, which culminate with the celebration of the reached love and the final sentence: "and they lived happily even after" (Finlayson 1980). In spite of its widespread use, the romantic ending became popular only in the 19<sup>th</sup> century, overshadowing the concept of romance ad its meaning.

Romances appeared in the 12<sup>th</sup> century, indicating a literary genre linked to the oral tradition<sup>11</sup> focused on the the emphasis on love and courtly manners (Frye 1957). The romance is based on stories of knights, famous kings or distressed women acting most often under the impulse of love, religious faith or the desire for adventure (Everett 1959). The complexity and peculiarity of this genre is defined by other several factors, which shape it on both structural and thematic levels like: the inclination to verse narratives with a late movement towards prose in the final stages; a lack of fixed length with tales that ranging from several hundred to several thousand lines; the quest and the environment it developed; and the recognition and reunion or loss and restoration, culminating in some cases a combination of the four aspects<sup>12</sup>.

Finlayson (1980) debates on what romance is and the themes it concerns, expressing his hesitation about the romance generalization and emphasizing how "despite the number of books and articles in English which have been written on the *romances*, there are very few definitions [...] and note even the best

<sup>&</sup>lt;sup>11</sup> [e.d.] The expression **oral tradition**, or **oral lore**, designates the cultural materials preserved orally from one generation to another, which were sang and performed in front of a vast audience, independently from their social background. Using repetitions and an intense expressive pattern, singers told stories about fallen kings or abandoned knights in pursuit of their glory and place in the world. Some of the most accredited and oral lore-rooted manuscripts are *Beowulf*, which belongs to Germanic tradition and the Hellenic **Iliad** and **Odyssey**, where the use of rhythmic structure and a vocabulary typical of the spoken language suggests their linkage with the oral tradition. (https://chs.harvard.edu/CHS/article/display/6275#n.\* - Accessed on December, 2017)

<sup>12</sup> http://faculty.uca.edu/jona/second/romannot.htm (Accessed on December, 2017)

of these is free from confusion" (Finlayson 1980). On the other side, Whetter (2008) defines it as the most multi-disciplinary, multifarious and multiform genre due to its versatility to love, honour and the nexus between fantasy and reality, all included in one tale.

Two particular aspects have been debated: the **role of women as reincarnation of love** and **the plot structure used in the romance**.

#### 1.2 Romances' Structure

For what it concerns the structure of the plot, Hulst (2001) divides romances in a **tripartite structure** based on:

- 1. **Integration**, based on the introduction of the character in the story with a description of his life and the main obstacle;
- 2. **Disintegration**, which is mostly caused by an antagonist that is the motive of the main character loss of his social status;
- 3. **Reintegration**, or the reintroduction of the hero to his initial social status with the additional celebration of the founded love or new identity.

This structure can be found for example in *Sir Orfeo* and *Gawain and The Green Knight*. In their efforts to be an active element of social growth, both knights are damaged by external situations such as a disastrous economic situation or the lost honour, causing their fall and consequent rise. The plots' negativity is solved through the protagonists' redemption with the re-ease of the lost honour and the reintegration in the realm<sup>13</sup>. This structure has both **stylistic** and **figurative** purposes: according to Abrams (1962), romances have the important role "to enter and remain in the world of civilized order, [when] we must first be tested in the marginal wilds of romance. To be recognized and found, we must first be

<sup>&</sup>lt;sup>13</sup>https://lifemeasuredwithcoffeespoons.wordpress.com/2013/07/29/the-medieval-romance-a-relevant-structure/ (Accessed on December, 2017)

lost" (Abrams 1962). The protagonists wander through figurative wilderness seeking answers, losing themselves in their subconscious' darkness, becoming estranged from what once was so familiar. At the end of the adventure, they return with an even fresher perspective and a full experience filled with victory in which they find their place once again (Campbell 1949).

Therefore, the prominence of the Medieval Romance is based on a structure that frames people's role in the society, trying to eradicate an explanation of humanity existence and the reasons why individuals face trials, questions of identity, faith crises and a myriad of challenges (Campbell 1949).

## 1.3 Women and Love Affairs

Women's role and supremacy in the romances' plots have been explained as game-definers of the knights' actions or just secondary characters with no implication on their life (Anderson 2015). Generally, knights and kings are associated with the ideals of stamina, bravery and adventure, while female characters are introduced as reflective or even passive, with a contemplative role (King et al. 1988). The main target is the mythicization of the noble hero and his daring deeds rather than a love story with a joyful end. The knights portray the incarnation of human virtues guided by the mutual love with his belonged, and abandoning the conceptualization of gestes guided by human desires. Evola (1937) identifies the female figure as the source of power that pushes the knight to go beyond his human limits and establish his hero status. This is also visible in the story of *Havelock the Dane*, in which the female character has the power to change the main character's mindset in taking positions on serious decisions that will drastically change his life (see Chapter 2, Paragraph 4.1 and 4.3).

The role of the dame in the chivalric literature is nothing but an extension or incarnation of the knight's spirit that elevates him to a higher condition because of the unification between the two elements.

#### 2. The Four Matters

Despite the common plot structure, Bodel elucidates the complicacies in defining the romance genre in the introduction of his work La Chanson de Saisnes (Eng. *The Song of Saxons*), about the war of King Charlemagne against the Saxons and their leader Widukind. Bodel explains that the geographical areas described in the stories, the linguistic changes and the structure representations used to distinguish all romances into three main Matters (Kibler et al. 1992). He emphasizes the role of *mélange* as the foundation of this literature, contesting how the concept of separation of the genre by theme and form is secondary and reflects classical, not medieval taste and expectations (Kibler et al. 1992). Bodel notices through the analysis of the geographic location and the stories' plots a possible classification of romances into three different matters: The Matter of France, The Matter of Greek and Rome and The Matter of Britain. The distinction gives the Romance genre a sense of decorum and propriety: if an author produces a mélange of form and themes in a single work, it may be considered as a direct violation of the coherent generic propriety that Bodel seems to have taken great pains to set up (Walter 2013).

# 2.1 The Matter of France

The Matter of France, also known as Carolingian Cycle, indicates a body of literature and legendary materials associated with the story of France, in particular the rise and fall of Charlemagne and his knights (Janin et al. 2013). Bernars de Bar-sur-Aube introduces in 1213 a subdivision of the Matter of France into three more cycles:

- 1. **Gestes du Roi**, about Charlemagne described as a champion of Christianity;
- Geste de Doon de Mayence, concerned with rebels against royal authority and its most famous characters were Renaud de Montauban and Girart de Roussillon;
- 3. **Geste de Garin de Monglane**, whose central character was William of Orange and younger knights without an inheritance, who faced Saracens with the main intention to find their glory.

#### 2.1 The Matter of Greek and Rome

The Matter of Greek and Rome is a literary cycle based on the Roman and Greek mythology, blended with episodes of classical antiquity, which mostly focus on Alexander the Great and Julius Cesar (Janin et al. 2013). The Matter of Rome also contains some disjoined references to the Matter of Troy, a collection of tales regarding the Trojan War with some antecedents about the adventures of Aeneas. Due to their historical estrangement with the Medieval Age, the poets had the important role to create anachronistic works by turning these figures into knights who lived in their contemporary époque (Skeat 1950).

## 2.3 The Matter of Britain

The Matter of Britain focuses on the legendary tales about the origins and consolidation of Great Britain and the legendary kings and heroes associated with it, in particular King Arthur (Janin et al. 2013). One of the earliest documents attributable to the Matter of Britain is the *Historia Britonum*, a collection of episodes regarding the adventures of Brutus of Britain conventionally ascribed to Nennius, probably devised to create a distinguished genealogy from the Welsh royals of the 9th century (Dumville 1975). The tale reached great notoriety due to

the connections between Brutus and the diaspora of heroes after the Trojan War, providing raw material to link the settlement of Britain to the heroic age of Greek literature, and explaining the patriotic mythmaking (Pearsall 1965). These multiple connections arise the significance and omnipotence of Britain, its identity and purpose in history and the relationship established between human existence and the Devine, with the intention to create cohesion in the mixture of their Celtic, Anglo-Saxon, Roman and Norse inheritance (Gillingham 2008). The first legends were created by primary cultures with the predominant role of defining a culture, its daily life and rituals able to identify the origin of everything (Eliade 1998). In addition, Eliade (1998) affirms how **origin myths** tell how the world was changed, made richer or poorer, as a sacred and essential part of mythology, and define genealogies and the origin of creatures charms and natural phenomena, trading royal families' pedigree and their correlation with the creation of the world itself.

# 2.4. The (Additional) Matter of England

Despite the classification, Schofield (1906) rises the issue on the inclusion of the loose corpus of medieval literature about England, English History or English pre-Norman or Anglo-Saxon in the Matter of Britain. Therefore, he creates a fourth matter called **Matter of England**, which includes "the late medieval romances based in part on the oral folk culture that survived the Norman Conquest" (Herzman and al. 1997). Schofield (1906) explains how "these different "matters" [Bodel's of France, Britain and Rome] shall [be discussed] in the order given by Bodel, developing, however two more by separating from the Matter of Britain stories of Germanic origin, and from that of Rome those that have their source in the Orient" (Schofield 1906). The concept behind the Matter of England is to separate and organize the stories of Germanic origins from the Matter of Britain and the Matter of Rome, not only focusing on the describing content but also tracing a native narrative - a saga - to avoid any association with

the Old French writings and promoting instead a concept of insular literature<sup>14</sup>. Creek (1911) and French & Hale (1930) have praised the inclusion of a new matter, highlighting how the Matter of England contributes on shaping a sense of national and linguistic identity, necessary to develop the international and multicultural concept that England still preserves nowadays. Furthermore, it brings together some of the finest imaginative works, distinguishing them at the same time from both Arthurian and non-Arthurian romances and their elegised English subjects and spaces (Creek 1911). These works present a detachment from chivalry and their interest in the courtly behaviour typical of the French romance, dedicating particular awareness to the socio-political issues using folktale motifs (see Chapter 2, Paragraph 4.2).

The new cycle opens the debate about its usefulness to facilitate the understanding of the Matters and their roles. Pearsall (1965) examines the traditional corpus of the Matters and the parameters applied for the identification and inclusion of a manuscript in a matter rather than another. This lead to a rejection of the Matters' classification, defining it as a "misleading where it lumps together quite dissimilar romances because of some superficial coincidence of plot material" (Pearsall 1965). In addition, Finlayson (1980) points out how this new division do not bring order in the unwieldy taxonomy of Middle English romances, saying that "nor is this classification by **matières** much more useful [...] to know that a poem is about Arthur, Charlemagne or antiquity is to know only the subject which is no more useful for critical purposes than to know that Hamlet is *about* a Danish prince of that name" (Finlayson 1980).

On the other hand, Barron (1987) and Sands (1986) have discouraged the previous criticism, praising the additional classification by Manner as a fundamental and useful structure.

Schofield (1906) identifies four romances that fit with the Fourth Matter:

<sup>&</sup>lt;sup>14</sup> http://d.lib.rochester.edu/crusades/text/crusades-medieval#.UYIS5LWcf4U (Accessed on December, 2017)

- 1. Havelock the Dane (c. 1290);
- 2. King Horn (c. 1300);
- 3. *Bevis of Hampton* (c. 1324);
- 4. Athelston (c. 1355 -1399);

He also compares the formal and thematic elements that constitute the four stories, in particular:

- The ability to change the protagonists' destiny, from the condition of disenfranchised hero to the final redemption;
- The detachment from the tragic element, in favor of a more comic and adventurous plot. Despite the initial difficulties protagonists might run into, the end is marked by rewards for their perseverance and valor, with honor, wedded bliss, and a restored kingdom to rule;
- 3. The meticulous and symmetrical structure, in contrast with the general unbalanced and episodic medieval plots, more complicated due to the passage from one location to another and the adding of new adventures detached from earlier scenes of romances.
- 4. The **U-Shaped Motif**<sup>15</sup>, also called the **monomyth**, which helps the developing of the hero's persona, focusing on the **journey of descent**, followed by ascent and a corresponding resolution of the hero's purpose and place in the world (Frye 1957).

<sup>&</sup>lt;sup>15</sup> Campbell (1949) explains how in the majority of the cases the romances share a common structure composed by seventeen stages divided in three acts: (1) **departure**, where the hero abandons his ordinary world due to his intense desire for adventure; the (2) **initiation** to his new status, facing different trials that will shape his role in the plot; and the (3) **return** to his ordinary life with the treasure he gained during his journey, also gaining wisdom and a new knowledge of the world.

# 3. King Horn

#### 3.1 The Plot

Horn is the son of King Murry and Queen Godhild of Sudden, a kingdom that lies by sea. After the invasion of the Saracens and the murder of the king, Horn assumes the throne and defeats the invaders after many adventures.

The story begins with the capture of Horn and his dearest friends Athulf and Fikenhild after the invasion of the Saracens and the murder of King Murry. While Queen Godhild, Horn's mother, decides to abandon the kingdom, King Ailmar of Westernesse welcomes Horn and his friends in his realm under his protection. Upon reaching adulthood, Horn and Rymenhild, King Alimar's daughter, fall in love and become betrothed, giving Horn a ring as a symbol of their future marriage. After becoming a knight of Westernesse, Sir Horn dedicates his life to defend King Ailmar's kingdom from the Saracens. Meanwhile, the envious Fikenhild discovers the future marriage between Horn and Rymenhild, and makes the king believe that Horn wants his throne. The king exiles Horn, who convinces his beloved to marry another man if he should not return before seven years. Horn leaves the reign and sails off to Ireland, where he takes service for King Thurston to defend the kingdom against the attack of the Saracens. In exchange for the services offered to the realm, King Thurston grants Horn the hand of his daughter Reynlid in marriage. Horn refuses to give an impulsive decision and asks the king to wait seven years, who agrees.

Seven years later, Princess Rymenhild is preparing to marry King Modi of Reynes. She sends letters to Horn, waiting for his return and begging him to save her and claim their marriage. One of the letters reaches Horn, who asks the messenger to return to the princess and tell her that he will come back and rescue her from the undesirable marriage. Unfortunately, the messenger dies in a storm, never sending the message to the beloved lady.

Horn reveals his identity and planes to King Thurston, who gives him the freedom to come back to Westernesse and reconquer his beloved. When he arrives at the kingdom, he discovers that the marriage already took place. Therefore, he infiltrates in King Modi's castle, where the wedding feast is taking place, to hand back Rymenhild the ring she has given to him. Believing that he was an impostor, Rymenhild asks where he has found the ring, discovering that he is Horn and reconciling after seven years. After reuniting with Rymenhild, Horn comes back to Ireland and the army defeats and kills King Modi and all his guests. Consequently, King Ailmar consents the marriage between Horn and Rymenhild, and reveals the entire story to his father-in-law. Horn, his friends and the army set sails to Suddene to reconquer the lost reign against the Saracens, throwing out the invaders and being crowned King.

Back in Westernesse, Fikenhild becomes a loyal servant of the king and claims the death of Horn to Rymenhild's hand in marriage. After agreeing, King Ailmar encloses her daughter in a fortress on a promontory surrounded by the sea. King Horn has a revealing dream about the fate of his marriage, setting sail for Westernesse to save princess Rymenhild, kill Fikenhild, and become the heir of King Ailmar's reign. Having reached Suddene, the royal pair reign in happiness to the end of their days.

# 3.2 The Three Manuscripts

As highlighted by Lumby and McKnight (1962), the story of King Horn is preserved in three manuscripts:

1. The Cambridge University MS. Gg. 4. 27, 2 (cc. 1300), is a fragment of fourteen folios. Its first folios contain the latter part of the story of *Floris and Blauncheflur*, then followed by *King Horn* entire and the fragment of the *Assumption*. The Cambridge manuscript is written in a very plain book-hand. The folios are in double columns, and occasionally, since the lines are short, two lines joined in one. The initial letters are written a little apart from the rest, and are marked with strokes of red (Lumby et al. 1962);

- 2. **Laud Misc. MS. 108** (cc. 1300-1325), is principally known for its earliest collections of legends. It contains sixty-one legends (the Southern Cycle), three religious poems, the romances of *Havelock the Dane* and King *Horn*, and finally three further legends, in a later hand of the 15th century (Lumby et al., 1962); the manuscript is in double columns on parchment. In addition, the texts of *King Horn* and *Havelock the Dane* are written in a fine book-hand (Lumby et al. 1962);
- 3. **Harleian MS. 2253** (cc. 1330- 1340), is identified as the collection of a genuine lover of poetry. The book has not been written by a singular author, testified by the several subjects developed, the presence of Old French, Old English and Latin structures, and the mixture of prose and verse. The manuscript is written in an informal but legible hand. In particular, the writer of *King Horn* was inspired by the French version of the story, exemplified by the word **geste** in the title, and the French orthography throughout, plus some occasional linguistic forms as **enimis** (v. 1024), **maister** (v. 659), as an evidence of the French connection with the manuscript (Lumby et al. 1962).

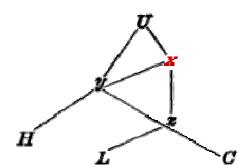


Figure 1 Stemma codicum of King Horn's manuscripts16

<sup>&</sup>lt;sup>16</sup>Graph taken from Wissmann, T. (1876). King Horn: Untersuchungen zur mittelenglischen Sprachund Litteraturgeschichte. Strassburg: Trübner.

### 3.3 Narrative Style

The style used in King Horn contains new models, which are distant from the oral tradition settings (Lumby et al. 1962). The author uses a simple and direct style, abandoning unnecessary descriptions and adding important details that help the readers to understand each event and their influence on the characters. In fact, almost half of *King Horn* is dialogue, specifically 713 lines in contrast with the 838 of the narrative. Gadomsky (1985) explains how the reason of this stylistic choice could be the necessity for the characters to speak for themselves, giving them the authority to relate personally with the situations and emotions they are living. The narrator plays the role of an **artificial authority**, using his words as a vehicle to go deeper and accurate in the analysis of the characters' actions (Booth 1961). For instance, the narrator reveals the readers Rimenhild's love for King Horn through the actions and words of the characters in vs. 319-324:

"Horn," quab heo, "wel longe Ihc habbe be luued stronge. Pu schalt bi trewbe pliste On myn hond her riste, Me to spuse holde, And ihc be lord to wolde"

Rimenhild repeats these sentiments multiple times, demonstrating her love for Horn without the use of excessive descriptions (Lumby et al. 1962). The narrator gives the characters the freedom to express their emotions independently of his/her necessities, giving them the authority to express their feelings without any interruptions (Gadomsky 1985). The protagonists deliver the audience the appropriate information, without marginalizing the suspense and alienating the readers. This aesthetic decision gives the complete control of the story to the characters, and focuses the attention on the development of the essential themes in the story (Scott 1988). For instance, Horn introduces the dual conception of right and wrong using the opposition between the Christians, represented as

strong and fierce, against the Pagans, weak and inferior. The characters alternate the good and the bad, the correct and the incorrect, describing both factions singularly to persuade the readers to choose the good against the evil and increase the sympathy for the protagonists (Brewer 1988). The stylistic patterns adopted in the story demonstrates a detachment from the Anglo-Saxon poetry, influenced by the oral tradition, in favour of progressive forms. The linguistic pattern validates this evolution, showing a detachment from the conventionalised Old English phrases, which are fewer (*Ne no rein vpon birine*, v.11 – Camb.; *Per ne moste libbe*, v.67 – Camb), in favour of a style typical of the 13th and 14th centuries, characterized by regular forms of versification and an increasing number of stereotyped phrases (Lumby et al., 1962).

# 3.4 Versification

King Horn shows a little trace of influence from the Old English traditional expressions. The work represents a joining link to the new literary tradition of English poetry (Lumby et al. 1962). In fact, the traditional phraseology gives space to stereotypes typical of the later compositions, inclined to the Medieval Latin Romances' tendencies. It can be postulated that the manuscript reports a development in the English metre, connecting the past structure of the oral tradition with new forms (Lumby et al. 1962). In fact, the versification of King Horn indicates a natural development of English metre, using a stronger stress on each verse of two syllables, providing uniformity to the rhythm. This tendency is supported by the introduction of rhyme, "for since the riming syllable naturally bore one of the two verse accents, and since the riming syllables in two riming verses would occupy the same relative position, hence in a riming verse the second of the two verse accents must balance with that in the other verse of the pair, and the balance established between the second pair of accents would naturally lead to a complete balance between the two verses" (Lumby et al. 1962).

The introduction of rhyme in Horn is defined also by the gradual absence of **alliteration**, which is insignificant for the marking of the verses' accents, becoming a redundant adornment (West 1907). The product of the rhyme develops:

- 1. **Three accents** with **feminine rhyme**, the natural product of the Old English A , C, and D types<sup>17</sup> (Lumby et al. 1962);
- 2. **Four accents** with **masculine rhyme**, the natural product of the Old English B and E types (Lumby et al. 1962).

The two forms are similar to the half verses of the Alexandrine (1), to the verses of the short rhyming couplets and to the first member of the heptameter (2). The verse in *King Horn* demonstrates a natural development to the Old English alliterative metre, greatly accelerated in the later stages by the strong influence of French prosody. The changes produce a change from the Old English four stressed long lines, divided by a central pause, bonded together by alliteration with a rare and casual rhyme, to the Middle English short line with two principal stresses and one or two secondary stresses, bond in pairs by more or less perfect end-rhyme (Hall 1901). Following this pattern, the loose recitative structure of Old English, which admits light syllables between the stresses even in their absence, gives place to an alternative of strong and light syllables (Hall 1901). This is evident in the three manuscripts:

- 1. **Cambridge**, which presents more regular syllabic metres, but with the abundant survival of the Old French prosodic system (Hall 1901);
- 2. **Laud** and **Harleian**, are characterized by a more regular and modern versification (Hall 1901).

<sup>&</sup>lt;sup>17</sup>https://publishing.cdlib.org/ucpressebooks/view?docId=ft2m3nb18b&chunk.id=d0e8199&toc.depth=10 0&brand=ucpress (Accessed on January, 2018)

The development of these principles attributes the origin of versification to King Horn, mostly for the regularization of the rhyme and the disappearance of alliteration and prosody, becoming an unessential element in the line. Schipper (1910) identifies in the poem the abundance of three accents with feminine rhymes (1300 out of 1530 lines), for instance:

Hórn þu àrt wel kéne and þat is wèl iséne (vs. 98-99)

Pe sé bigàn to flówe and Hórn chìld to rówe (vs. 127-128)

However, the text contains some exceptions, like a two-beat rhythm (which may have been similar to the original rhythm) that is perceptible in some lines like:

Hi slógen and fúgten þe nígt and þe úgten (vs. 1375-1376)

This example demonstrates the different verses used in King Horn, indicating the transitional stage of the poem, which includes elements of the old, modified or reconceptualised to be coherent with the new methods introduced in the manuscript (Shipper 1910).

### 3.5 *The Importance of Dialects*

It is difficult to determine the original dialect in *King Horn*, because of the many written forms used in the manuscript (Lumby et al. 1962). In fact, the text includes English dialectal variations from the North and the Midland, West-Southern and Middle-Southern, and Kentish and East-Southern. In all the three manuscripts the  $\alpha$  changes in  $\alpha$  or e, making the pronunciation often equivocal

(Lumby et al. 1962). Analysing in detail:

1. In the North and the Midlands:  $\mathbf{\tilde{x}} - \mathbf{\bar{x}}$  shorten into a;

2. In the West-Southern and Middle-Southern:  $\boldsymbol{x}$  -  $\bar{\boldsymbol{x}}$  shorten into  $\boldsymbol{e}$  (early

writings), than *a* (later writings);

3. In the Kentish and the East- Southern:  $\boldsymbol{x}^{-}$  -  $\bar{\boldsymbol{x}}$  shorten into e (prevailing

vowel).

These changes are evident in each manuscript. In fact:

1. In **Cambridge**,  $\tilde{x}$  is shorten into a (with the only exception of bed, v. 536);

2. In **Harleian**, æ is shorten into e (e.g. sumwet: net vs. 725-726);

3. In **Laud Misc**,  $\boldsymbol{x}$  is shorten into e/a.

In the case of  $\bar{\boldsymbol{x}}$  (i-mulant), even if shortened the diphthong is written on the same

way, with a pronunciation similar to the vowel e (e.g. geste: feste, vs. 553-554, and

vs. 1305-1306, biweste: laste, vs. 5-6). In conclusion, it is possible to state that King

Horn contains principally the East-Southern product **e**, assuming the presence of

the other dialects as a writer's inaccuracy in the rhymes or a casual mixing of

dialects (Lumby et al. 1962).

In addition, it is possible to include:

1. The changing of ea before l + consonant in el or ol. It seems also to have

had a double pronunciation, both supported by rhymes. For instance:

welde: 3elde (vs. 513-514; Camb. and Harl.);

felde: welde (vs. 451-452; Harl.);

bihelde: felde (vs. 901-902).

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2. The breaking ea before l + consonant. For instance, vs. 95-96 seem to testify the unbroken sound in Old English. lengthened before -ld to  $\bar{a}$  and then opened to  $\bar{q}$ :

Admirad : bald (Camb.); Amyraud : baud (Laud.); Admyrold : bold (Harl.).

In conclusion, the intense presence of southern elements seems to justify the origin of King Horn in that specific area, precisely the southeaster one. The dialect also helps to hypnotize that the composition time might be at the beginning of the 13<sup>th</sup> century, also justified by the presence of French influence in the text (Lumby et al. 1962).

# 4. The Lay of Havelock the Dane

#### 4.1 The Plot

The story of Havelock the Dane consists of a double cycle, where the lives of Havelock, prince of Denmark, and Goldborow, princess of England, follow the same track and connect at the end.

The story begins in the reign of the virtuous Athelwold, king of England, who dies without a successor and leaves his daughter Goldebour and the command of the kingdom to Godrich, Earl of Cornwall, until the princess will be married. After the king's death, Godrich betrays his wills and imprisons Goldborow.

Thereafter, the story shifts Denmark and the honourable king Birkabein. After his death, Havelock and his sisters Swanborow and Helfled are victims of the usurper Godard, a wealthy retainer. Godard also betrays the desires of the Danish king, brutally killing his daughters and leaving the three-years-old Havelock to the fisherman Grim, to be drowned in the sea. The night before the murder, Grim identifies Havelock as the real heir of Denmark, because of the bright light that emerges from the boy's mouth when he is sleeping, and the kynemerk, a cross-shaped birthmark on his shoulder. After the revelation of Havelock's destiny, Grim's wife Leve convinces him to spare his life, keeping him in their family as a fisherman.

After many years, Havelock leaves his foster family and goes to Lincoln, where he works in the Bertram's tavern as a kitchen-boy. His kind and humble behaviour makes him popular in town, drawing the attention wherever he goes. One day, he wins a stone-throwing competition, capturing the attention of Godrich, who notices Havelock's unusual aspect and decides to arrange a marriage with princess Goldborow. He believes that Havelock is a peasant that could deprive Goldboruw of her royal status. After some hesitation, Godrich convinces Havelock to marry Goldebour.

After the marriage, the couple comes back to Grim's family. During their first night together, Goldebour discovers the bright light that comes out form Havelock's mouth and the birthmark, revealing his royal status. The same night, Havelock dreams to come back to his birthplace and present the kingdom to his wife. After their revelations, the couple decides to come back to Denmark to reconquer the lost kingdom.

During the journey, Havelock and Goldebour meet Ubbe, a Danish nobleman, who is impressed by the Danish prince's ability after he defended Ubbe from an attack in his house. The revelation of the birthmarks convinced Ubbe of Havelock's royal power, supporting the prince in overthrowing Godard. With the help of Ubbe and many Danish lords, Havelock defeats the usurper Godard and reconquers not only the reign of Denmark, but also the reign of England in the name of Goldebour. Finally, Havelok rules for more than sixty years, enjoying his marriage and having fifteen children.

### 4.2 Havelock's Personal Growth

The personal growth of Havelock is focused on his role as a knight and his escalation to victory, with an inner introspection on the character's background and his representation of the social organization. In Havelock, the author portrays the character not as a usual knight with a desire for victory from his contemptible relative, but as a common human being with psychological features mixed with religious symbolism and a complex social background (Skeat 1950). In the first lines of the poem, the author introduces Havelock to the audience, describing him as a human being with a divine role on Earth:

#### Original

Herkneth to me, gode men -Wives, maydnes, and alle men -Of a tale that ich you wile telle, Wo so it wile here and therto dwelle. The tale is of Havelok imaked: Whil he was litel, he yede ful naked. Havelok was a ful god gome -

#### Translation

Harken to me, good men Wives, maidens and all men Of a tale that I will tell to whoever
Would like to stay and hear it.
The tale is of Havelock:
Who was so poor in his youth that he
went about naked.

He was ful god in everi trome; He was the wicteste man at nede That thurte riden on ani stede. That ye mowen now yhere, And the tale you mowen ylere, At the biginnig of ure tale, Fil me a cuppe of ful god ale; And wile drinken, her I spelle, That Crist us shilde alle fro helle. When grown, he was a stalwart man,
Good in every troop, the bravest at
need that might ride a steed.
So that you can now hear the tale and
learn,
at the beginning of our story
fill me a cup of good ale;
and before starting, I will drink a
prayer
That Christ shields us all from hell.

The first 16 lines begin with an exordium broadly used in the Middle English literature, inspired to the Old French romances in which the introductive verses are divided into two **sententiae**, an **exemplum**, an exhortation to listen, a recommendation of the story to come and a statement on the theme. In this specific case, the author is using this OF repetitive style but including another feature, a **prayer** on behalf of the assembled company (Skeat 1950). The introduction has the purpose to create a positive impact on the reader's thoughts; he refers to a wide audience in the poem ("good man, wives, maidens and all man"; **verses 1-2**), independently from the social classes or their cultural background, inviting to take care of Havelock and listen very carefully his story (Smithers 1987). This skinny man carries on his shoulders a divine fate that will save him from a brutal death, shaping his persona and royal abilities to fight the perfidious Godard (Herzman et al. 1997). This offers the readers some spills on the character's life and his journey from a usurped young prince to an adult king, influenced by the presence of Lady Goldebour.

Lady Goldebour shapes a different idea of love in the romances' settings. As previously highlighted, the romance as a love story is a usual misconception of this literary genre, but in specific situations it could be the melting point of both character's storyline, endorsing the same adversities and waiting for their rebirth (see Chapter 2, Paragraph 1.2). Before his marriage, Havelock is still considered a child lacking in consciousness of his royal position, which only Goldebour's willpower will inflame, pushing him to start taking position in his life. Hanning

(1967) explains how this is a common parallelism of romances plots which is characterized as follows:

- 1. The hero's movement **from loss to recovery** (Hanning 1967);
- 2. The development **from immaturity or faultiness** toward maturity or perfection (Hanning 1967);
- 3. A **love relationship**, which unites the hero (in his deprived and/or developing state) and a heroine who has also been the victim of deprivation or other injustice (Hanning 1967).

This structure helps the reader to assimilate the growing process of Havelock and Goldebour and the mechanisms behind their decisions (Hanning 1967).

Both are victims of the same calamities: they are young heirs, children of beloved kings killed by barons of the realm who threat and oppress the protagonist to satisfy their yearning of power (Herzman et al. 1997). However, their status of pariah is temporary and the parallel misadventures will become the real motif of their revenge and union, demonstrating their humility and the abilities of great sovereigns (Hanning 1967). This is demonstrated in different parts of the story, when a young Havelock offers his abilities to the usurper in return for his life or before the marriage when he does not consider himself the right husband for Lady Goldebour<sup>18</sup> ("I cannot feed her, much less clothe and lodge her. My very garments are not my own, but belong to the cook, my master").

<sup>&</sup>lt;sup>18</sup> The verse 484 begins with the sentence **Manrede**, **louerd**, **biddi you!** (*Eng*. I offer you my fealty, lord), a typical medieval establishment or reaffirmation of a special relationship between the lord and the vassal. The relationship between kings and vassals is determined by a particular feudal contract, where the vassals offers his services to the king and vice versa. In other words, "the lord owed something to the vassal, just as the vassal owed something to the lord" (Anderson 2008).

### 4.3 The Differentiation of the Power

The introduction of King Athelwold (Goldebour's father) and his peaceful kingdom presents the reader the skills a real leader should develop, contextualising them with the traits Havelock has to mould to become the respectful sovereign his kingdom needs (Skeat 1950).

The author describes the political agenda of a king, who dedicates his life on maintaining peace and righteousness in a realm in danger of violence. Analysing the portrayal of the Danish King, Hanning (1967) notices the author's choice to shape his power depending on its uses and effects, differentiating it into:

- 1. **Personal Power**, which allows the king to maintain possession of his throne (Hanning; 1967);
- 2. **Social Power**, which keeps his kingdom in a state of order and peace (Hanning; 1967).

The latter is marked in many parts of the poem like the vs. 27-36, where the author writes:

#### Original

It was a king bi are dawes,
That in his time were gode lawes
He dede maken and ful wel holden;
Hym lovede yung, him lovede holdeErl and barun, dreng and thayn,
Knict, bondeman, and swain,
Wydues, maydnes, prestes and
clerkes,
And al for hise gode werkes.
He lovede God with al his micth,
And Holy Kirke, and soth ant ricth.

#### Translation

Long ago, there was a king
Who made and upheld good laws.
He was loved for his good works by all:
Young and old loved him
earls and barons, thanes,
knights, bondmen, swains,
Widows, maidens, priests and clerks.
He loved God and the Holy Church
With all his might, and truth and justice.

This brief description of King Athelwold defines the abilities of a sovereign, who puts the interests of many in front of his own ones. He was beloved by everyone of any age or social range, because he did not create any gaps between social classes, almost discouraging them. After his dead, the usurper Godard and his desire for power push him to kill Havelock's sisters and abandon the prince. Godard represents the idea behind the **personal power**, leading the realm to a social discrepancy driven by his personal desires rather than people's necessities (Hanning 1967).

The beginning of the story with the political virtues of King classifies the parameters of a king, immersing the readers into the social condition of England in the 12<sup>th</sup> century, and justifying the inclusion of *Havelock the Dane* in the Matter of England too. King Athelwold is the representation of an individual gripped by fear and the **body politic** of his society (Harvey 2007). Salisbury introduced the expression body politic in 1159 to describe the political and social structures of medieval societies where the prince is on top followed by constituent groups like senate, officials and soldiers (Harvey 2007). The pyramidal organization is based on a strong interdependence between each member, able to establish a condition of peace and equality (Okulska et al. 2010). This affiliation between the different members of society demonstrates how the power can be established through the interconnection between the different classes that constitute the social body, rather than being located in the divinely marked body of the king. Consequently, the mutual support between each class generates a stable society, free from social divisions (Okulska et al. 2010).

In the story, Havelock has the role to improve his society, without being overwhelmed by his personal desires. He has to put people's necessities before his needs, as he will demonstrate during his journey (Skeat 1950).

Havelock is not able to understand the differentiation of powers and their meaning, surrendering himself to the usurper and losing his identity (as seen in verse 484). The social consciousness is re-established, only when he will bring

back his empire to the original condition, and using his life experiences and adventures as a commoner to regain his identity and recover his sovereignty.

### 4.4 The Fisherman's Change of Heart

In the climb to reconquer his lost realm, Havelock shows love and humility for his beloved ones and the lower social classes (Herzman et al., 1997). The awareness of his social condition is the result of a long route encouraged by secondary characters, which shape his identity and change their lives. In particular, the author points out how the relationship Havelock matures with the fisherman Grim is central to embrace Havelock's persona in totum (Mills 1967). The **fisherman** is a typical character of medieval, mostly with the infamous responsibility to kill the antagonist's opponent to facilitate his escalation to power (Mills 1967). In the case of *Havelock the Dane*, the fisherman's psychology is complex, especially for his process of auto-analysis: he had the gruelling task to kill the Danish heir and assure Godard's royal longevity (Herzman et al. 1997). Grim's decision is also encouraged by the desire for richness and social acceptance. However, after discovering Havelock's marks and identifying him as the legitimate heir of Denmark, Grim is victim of a **change of heart**, abandoning its task and believing in the sanctity of the young prince (Mills 1967).

A linear analysis of Grim's choices can help the readers to define his emotional evolution and its consequences on the plot. The first is the aspiration of prosperity, which is well defined in the story when the author highlights Grim's desire to be **fre** (v. 530) from his social status and **riche** (v. 531), but frayed by Godard's task (Mills 1967). The change of hearts starts with the introduction of Grim's wife Leve in the scene, overturning the situation and disorienting Grim's choices. Her inclusion in the story opens again the doors to a new vision of romantic love, a modern conceptualization of the lovers with the possibility to change their beloved minds and convince him to give the child a new chance to pursue his destiny (Mills 1967). The author portrays women in this work as

central storyline definers, who establish new parameters in the characters' destiny (Evola 1937). Leve and Goldebour demonstrate the straight to help their men recovering from the adversities, firstly warding off Havelock's death and then using the marriage and their struggles to reconquer their lost reigns.

Nevertheless, Grim's desire for power is stronger than his integrity as he shows his real behaviour, treating the poor child as an animal and leaving him undressed on the cold floor of his cottage. Grim's conduct exposes him as a secondary enemy, moved by his necessities rather than his moral sense. In fact, he can be portrayed as an instrument of a superior evil master represented by Godard, who leaves the job to the fisherman and his wife (Herzman et al. 1997). The final change of heart occurs when Grim and his wife Leve discovered the cruciform birthmark on the shoulder, the **kyne-mark** (v. 604), described in vs. 606-608:

#### Original Translation

"Goddot!" quath Grim, "this ure eir, "God knows!" said Grim, "he is the heir, That shal louerd of Denemark! That should govern Denmark He shal ben king, strong and stark; He should be the king, strong and strict

In this precise moment, Grim's mind recovers the lost lucidity, suddenly becoming a compassionate man who abandoned his commission, showing compassion and love for the survived creature executioner (Mills 1967). The sympathy and astonishment move Grim's heart, pushing him to keep the child in his family and initiate Havelock's internal growth, developing a conscious prospective of life and Grim's social background (Skeat 1959).

Havelock's vulnerability metaphorically shows the readers the divergences and sufferings of the Danish and English societies, both loved but defeated because of the antagonists' desire for power. For instance, the naked body on the cold floor and the homicide of Havelock's sisters represent the lost freedom and purity these kingdoms were used to. Thereafter, the redemption and reconquest

of the lost reigns introduce the readers to a more complex vision of Havelock's life, as a new and victorious saviour (Smithers 1987).

Grim's change can be considered as the author's desire to create a connection between King Athelwold and Havelock. The three characters have shared the same duality of the soul, all victims of an inner fight between right and wrong. King Athelwold and his balance between the social and the personal power to avoid that the latter gains the upper hand (Hanning 1967); then Grim, who prefers to save the child's life, giving the chance to redeem himself (Mills 1967). Finally, Havelock embodies the qualities of Grim and King Athelwold, demonstrating to be a mindful human (Hanning 1967).

Havelock's strength is evident in many situations in the story, for instance:

- 1. When he overpowers all his competitors for a job as basket-carrier to the earl's cook in Lincoln, carrying an incredible load of fish by himself and therefore guaranteeing a steady job;
- 2. When Havelock competes at the Lincoln's Games against some English young champions and wins the competition with the best score;
- 3. When he returns to Denmark, before the regaining of the kingdom, he fights against a group of seventy robbers who surrounded the house of Bernard Burn, a retainer that was giving Havelock a bed after Ubbe's feast.

These occasions show Havelok's skills as a leader, marking the greatest display yet of personal power with clear indications of social use of that power, and thus prepares the audience for the hero imminent accession to kingship (Hanning 1967). These adversities exemplify Havelock's desire to protect his community, also closing a circle represented by King Athelwold<sup>19</sup> and Grim (Mills 1967).

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<sup>&</sup>lt;sup>19</sup> [e.d] King Birkabeing, Havelock's father and monarch of Denmark, portrays the same qualities and political abilities of the English king, despite the author decided not to give him the same space and attention in describing King Athelwold. The main target of the description is to identify the necessary qualities Havelock needs to develop in order to become the respectful monarch his kingdom deserves.

In conclusion, Grim represents the joining link of the story, embracing the power to manage the hero's life changing it in better o in worst. The author defines Grim's role thanks to what it can be defined as the Divine Providence<sup>20</sup>, leading from sin to salvation, and helping Havelock to become a mature individual, whose education among the common people has made him aware of the obligations demanded of a monarch on behalf of his subjects (Mills 1967).

<sup>20</sup>[*e.d*] On a general perspective, the **Divine Providence** (from Latin **providential** "foresight, prudence") indicates the influence of God in the life and decisions of the hero and his journey to glory. In Havelock's life, the role of God and his influence is exchanged with the figure of Grimm and his benevolent actions. The decision to accept the usurped king in his family and his introduction in a humbler background will influence his choices and mould his relationship with the lower social classes, understanding their necessities.

#### CHAPTER III

# Textual Criticism in the Classroom

The roles of the students, the text and the computers

As debated in the first chapter, the technological evolution has affected and encouraged the humanistic disciplines to improve their methodologies, in order to produce a new vision of their matters of interest. In the educational field, technology developed new methods able to satisfy both teaching and learning situations, increasing the curiosity in pupils and their spontaneity in learning; In addition, they can positively affect student's psychology and determine the success of the learning process, also established by an effective curriculum. However, the role of technology is not limited to the use of CDs or videos during the lessons, but can be introduced as an instrument able to generate new ideas on the matter, also contextualized with the actual students' necessities. For this reason, this chapter will focus its attention on the role played by computers in the educational systems, analysing the pros of its introduction in the classroom as a facilitator of teachers' curricula and students' learning necessities. These characteristics will be discussed in the specific contexts of the philological and literary education, focusing on how the discipline can be technologically improved and how it can affects the classrooms' environment.

# 1. The Roles of Computers in School

# 1.1 What is a Computer?

The technological possibilities have encouraged professionals to reconsider the role of the instrument not as the simple facilitator of the daily routines but mostly as the connection point between a discipline and objectives. As with the philological universe, even in pedagogy it has been necessary an inner self-reconsideration of the teaching and learning achievements and how they have been affected by the current computational wave. The generic use of the instrument and its lack of definition makes it mouldable to the necessities of the discipline, with the main intention to make it more effective and productive. In other words, the realization of its potential starts from the reconsideration of the tool and its role in the field.

Thus, the principal question is "What is a computer and how can I introduce it in the classroom?"<sup>21</sup>. The question opens the doors to the wide application of computers as multidimensional tools able to analyse the subject on different levels. As reported by Bruce (1990), the effect of computers on people necessities is similar to the concept behind Rorschach's ink tables that produce different responses depending on the psychological and physical condition of an individual in a determined moment. This means that technology defines his role, following the necessities and targets required in the educational process, as a constructive and projective medium<sup>22</sup> with multiple shapes and meanings, and with a positive impact on both students' personalities and teachers' development

<sup>&</sup>lt;sup>21</sup> Motteram (2013) identifies a range of technologies that can be useful for the successful realization of an automatized learning process; he classifies the devices for each educational level from primary school, with the use of blogs, PowerPoint, talking pens and stickers, to English for Academic purposes, with the integration of concordances, Moodle or blackboards;

<sup>&</sup>lt;sup>22</sup> The expression used by Turkle (1984) is indicative of the multiple and pragmatic sensibilities behind computers depending on the users' approaches. It can be assured how computers' chameleon-like capacities have made it an intuitive instrument with a wide application depending on the real necessities. This openness makes the instrument efficient on different scales, including pedagogy, because of the way it influences our perspective on matters, improving the old toward more innovative methodologies;

of coherent methodologies (Turkle 1984).

### 1.2. The qualities of computers in schools

Bruce (1990) identifies the qualities computers have in educational environments, considering the students and teachers' necessities and the targets of the curricula. These qualities are:

- Computers as a Tutor, able to follow students' educational development step-by-step and provide a specific path following their individual abilities;
- Computers as a Tool, "aiding in reading, allow students to produce and format texts easily, facilitate revision of texts, and check for spelling errors" (Bruce 1990);
- 3. **Computers as Language explorers**, or the regularities and difficulties that a student can encounter during the learning process;
- Computers as Media, facilitating the process with the implementation of hypertexts and hypermedia, for example tables, charts, graphs, pictures, sounds, video, and text;
- Computers as Tools for Communication, which create wholesome forms
  of communication between students or even teachers through the usage
  of new social platforms.

### 1.2.1 Computers as Tutor

The role of computers as a **tutor** is to manage the educational process of each pupils' necessities and targets, also generating a gradual evaluation of students' abilities<sup>23</sup> (Taylor, 1980). Bates and Wilson (1982) have demonstrated

<sup>&</sup>lt;sup>23</sup> [e.d] The benefits developed by the study highlight how the application of computers in the academic system can improve students' abilities and the in depth analysis of the subject,

how a generative computational system can help deaf students in both the production and comprehension of written English sentences. The results have demonstrated:

- 1. **The possibility to control the tutorial dialogue**, through an organization of the lesson, shaped following each students' necessities;
- 2. The presentation of fictional environments and a specific lexicon for correct and effective communication;
- 3. **A motivating analysis** of specific aspects of the language, with particular attention on these abilities that have not been completely fulfilled.

The achievement in computerized linguistics engenders a new idea of the learning process for any educational situation. The inclusion of computers in schools' curricula could produce outstanding levels in learning, highlighting how computers must not be conceived as teachers' substitute, but as a facilitator in developing students' skills.

### 1.2.2 Computers as Tools

Automatized classrooms have been able to develop advantageous programs that facilitate the learning process through a more practical and creative development of pupils' skills. For instance, the application of word processors to understand the textual structure enable students to assimilate the right steps to produce a correct text (Smith 1986).

However, its use can be extended for different skills like:

represented in this specific case by foreign languages. However, the integration of technology in languages classrooms can damage the skills' development. In general, the available facilities in schools do not support the integration of technology in the learning process. Jones (2004) describes different factors that might impede the integration of computers in the classrooms, in particular the short amount of time available in the class, which is a crucial factor for the computers' strength in the learning process.

- Reading assistance, using speech synthesizers or pre-recorded words that help students to improve the pronunciation of an unknown vocabulary. ì Oloffson (1992) highlights how the use of specific programmes like synthetic dialogues or audios can generate a more conscious analysis of the world;
- Create and plan ideas, with programmes able to develop students' skills in writing and editing. For instance, programmes like Writing a Narrative and Writing Workshop can help students in organizing their concepts, encouraging the growth of a critical thinking (Heller 1995);
- 3. **Finding information**, using the World Wide Web as the central source, thanks to the vast database available. The presence of thesaurus and dictionaries can be a useful learning source, able to give a different perspective of the language and its use (Bruce 1990).
- 4. Writing a text, facilitating the composition of a text through a mechanical examination of a sentence, in particular its structure and elements. For instance, the introduction of programmes like the Writer's Workbench (AT&T Bell Laboratories) can improve students' abilities in the use of verbs, analysis of contents, grammar and punctuation (Tomlinson 2013);

# 1.2.3 Computers as Way to Explore Language

As discussed in the previous chapter, the role of computers cannot be limited to one discipline due to its multidisciplinary behaviour. As in philology, students can use technology as an useful device to discover new linguistic aspects, "using the computer to understand knowing as rooted in personal knowing" (Papert 1980). Using programmes like **LOGO**<sup>24</sup>, students might be able to understand how to navigate in Internet, using specific tools depending on their

<sup>&</sup>lt;sup>24</sup> https://people.eecs.berkeley.edu/~bh/ (Accessed on December, 2017)

purposes. The introduction of computational planning in the classroom can increase the interest on the subject and increase the quality of information (Maddux 1987).

### 1.2.4 Computers as Media

The increasing use of electronic mails or online documents availability transformed computers into a communication device able to transfer easily a large amount of information. For instance, the application of hypertexts in education produces a more in depth analysis of a topic, also offering an easier and faster retrieval of information and its employment (Bruce 1990).

### 1.2.5 Computers as Tools for Communication

The effectiveness of computers has generated a new relationship between students and teachers, using emails to exchange informations and opinions on topics developed in the classroom (Weiss et al. 2013). Bruce & Rubin (1993) have proved the effects of an email-based teaching in Alaska using emails as a form of communication. The project demonstrates how the introduction of an antimainstream educational approach produces and shares new ideas faster.

#### 2. Students and Textual Criticism

### 2.1. The Text as a Living Organism

These qualities demonstrates how technology can contribute to improve learners' capacities and produce an approach with tangible effects on students' learning, plus developing a more relevant critical thinking (Dowling & Harland 2001). In the specific case of textual criticism, computers can be advantageous to understand the process behind the reconstruction of ancient manuscripts and their linguistic evolution (Bruce 1990). Students are not aware of the reconstruction process behind a text, and how elements like time, historical situations and authors' style can produce a different text from the original (Lachmann 1817). A simplified representation of the Lachmannian method and the comparison of different versions of the text facilitate the understanding of the manuscripts' mutability, and their influence by cultural and historical factors to the language (Miles 1899).

The role of philologist is to create a bridge between the past and the present, showing how external factors like historical changes or different cultural environments have an influence on the linguistic evolution (Miles 1899). As illustrated by Balboni (2004), a text cannot be conceived as a static element, but it modifies its structure to satisfy the readers' necessities. This mutability is illustrated through the **SPEAKING** theory developed by Hymes in 1974, which abandons the idea of language as grammar, an abstract set of rules or norms, in favour of a language made by the speaker and his/her relationship with the world (Johnstone 2010). In literary terms, the theory elucidates how internal and external variables, like cultural scene or the literary norms, can change not only the significance of a text, but also its structure (Balboni 2004). The variables can be distinguished in:

- 1. **Setting and Scene**, understanding the text through its culture and situation;
- 2. **Participants**, divided into reader and the writer;
- 3. **Ends**, or the emotions and consequences that the text causes in the reader;
- 4. **Act of Sequence**, or literary sequence (Balboni 2014);
- 5. **Key**, indicating the participants' psychological key
- 6. Instrumentalities, which are the instruments available to achieve the literary targets;
- 7. **Norms**, indicating style and grammar;
- 8. **Genre**, not intended as the literary genre (prose, poetry, novel) but in communicative terms: the description of a place, a monologue, a dialogue, and more.

### 2.1.1. Setting and Scene

In a communicative framework, Hymes defines the settings and scenes as the time and place in which a speech act occurs, changing the way people interact in social circumstances (Kiesling et al. 2005). In the specific context of a literary text, settings and scenes are useful to understand the evolution of the text and its connection with the culture (Balboni 2004). For instance, Americans have difficulties to understand the literary intentions of Dante's *De Monarchia* or fans of science fiction do not understand medieval novel, because it is firstly necessary to clarify their cultural backgrounds in order to understand their purposes. The cultural background also explains how the text is consumed by a reader, from the traditional reading of a printed book to its consultation on a computer (Balboni 2004). For instance, reading a text in a classroom or in a bedroom produce different inputs: the first one rational, logic, and guided by the educational purposes; the second one is based on the analysis of the text on an emotional level, focusing on the sensations and the pathos the story transmits to the reader (Balboni 2014).

### 2.1.2. Participants

In the definition of the main constituents of the communicative context, Hymes (1974) classifies the participants' role into **speakers** and **hearers**, who apply an appropriate form of speaking and correct vocabulary depending on the situation (Kiesling et al. 2005). In a literary context, the roles are inverted into **writer** and **reader**, which share a complex relationship: the act of reading cannot be a simple and intimate pastime, but as the mutual relationship between the authors, with their visions, and the readers, with their literary necessities (Raimondi 2007). The role of the text is to connect the necessities of both participants, generating a mutual relationship able to satisfy both necessities of readers and writers. As explained by Raimondi (2007), a text is a living element that depends by not only the writer, who gives form to his needs, but also to the reader and the interpretation he/she gives to the story, giving the work a new shape. This representation demonstrates the effects of external factors in the understanding of the text, elucidating how the role of the reader is not secondary in the writing process (Balboni 2004).

#### 2.1.3. Ends

In Hymes' vision, the role of ends indicate the purposes and the outcomes established in a communicative situation (Kiesling et al. 2005), Even while writing a book, the writers define the goals of their text and how it can affect the readers' sensibility. Ends are variable to both writers and readers' needs: the first ones present a concept with the main intention to evoke a specific emotion, while the second uses the book as a form of evasion from the monotony of the day, or for pleasure, or for study (Balboni, 2004). In other words, the literary event only happens when the necessities of the reader encounter the mindset of the writer, creating a connection that satisfies both participants.

### 2.1.4. Act of Sequence

The act of sequence indicates the effects of a sentence in a speech and its subsequent effects on the communication (Hymes, 1974). In literary terms, Balboni (2004) imagines the act of sequence as the encounter between the writer's purposes in the book and how the reader responds to these outcomes, in particular how it can affect the interpretation of the book and his emotional sphere. In a text, it is unusual the presence of a single emotion, but it is a rollercoaster of sensations, from fear, to anger or love (see chapter 2, Paragraph 4.1 to understand the emotional factors in Havelock the Dane). As noticed by Jauss (1998), this variation of emotions mixed with the different cultural background of each reader generates a different analysis of the text, maybe producing a different feeling than the ones actually planned by the writer. It is impossible to impose a universal and definite conceptualization of a text, because it goes against the role of a literary text to transmit the emotions wanted by the readers (Iser 1987)

### 2.1.5. Key

The function of the **key** is to illustrate the readers' reaction to a poem or a novel and the consequences on the relationship with the writer and the text itself (Balboni 2004). The key can be represented because of the act of sequence, focusing on how the reader interprets the text and the writers' intentions behind it. The reading and understanding are part of an experience in which human beings explore the pages searching for the inner truth or even their own individuality (Ai Ling 2004). Jauss (1998) defines this inner journey with the term **horizon of expectations**, to describe the criteria behind the judgement and analysis of a literary text. The readers search for the real value of the text and how it can change their perspective of life. For instance, they try to understand how the connection between the text and its historical period can generate different outputs than the ones the readers expect today. For this reason, the

subjectivity of the reader and the objectivity of the book sometimes do not match, because of the different expectations between the writers' outcomes and readers' expectations at the time.

#### 2.1.6. Instrumentalities

Hymes' **instrumentalities** indicate the devices available to achieve the communicative act (Kiesling et al. 2005). In the specific case of literature and text analysis, the technological evolution of the last century has provided to the reader new devices able to give a deeper analysis of the text (Balboni 2004). For instance, the introduction of **hypertexts** in literary analysis define an element in detail, including aspects and information that printed books sometimes avoid (information, open questions, main ideas) and relationships (with other similar materials that can include also student assignments or notes) (Kaba 2017). In the specific case of textual criticism, there are specific tools able to compare the different versions of a text and understand the modification it undergoes over time (see Paragraph 3.1).

#### 2.1.7. Norms

As described by Hymes, there are specific norms and structures that the writers must follow in order to recognize the literary genre of a text (Balboni, 2004). In textual criticism, Mass (1960) specifies how the norms behind the text are highly influenced by the historical background and the linguistic development in a precise époque. The errors, which are useful to reconstruct a manuscript and analyse the linguistic evolution of a country (see Chapter 1, paragraph 2), help the reader understand the mutability of a language and the norms (or grammatical rules) behind a text can be influenced by the historical period.

#### 2.1.8. Genre

As highlighted by Balboni (2004), the **genre** does not refer to the literary genres but to the emotional communication the text creates with the reader, for instance the description of a particular place, the behaviour of a character, a monologue or more. The readers interprets the text in order to satisfy their desires and feelings, finding pleasure in the description and getting involved with the characters and their stories (Levorato 2000).

### 2.2. Pros of Textual Criticism in Schools

The previous aspects demonstrate how a text shapes its form and meanings to create a good connection between the reader and the writer (Raimondi 2007). This is due to the constant changing of the cultural and social backgrounds that affect the writers and their message behind the text (Kiesling et al. 2005). For instance, the influence of other languages of different origin (Latin, German, and more) provokes changes in the text, not only on a structural level but also on the thematic one, creating new ideas and concepts (Barillari 2016).

The mutability of a text is not highly developed or discussed in the classroom, where it is preferred a more formalistic approach, based on the translation of the ancient text, and the analysis of its metre and themes (Balboni 2014). In addition to the thematic importance in the analysis of a literary text, the introduction of a textual criticism-based approach can develop historical competences of the text and a more conscious understanding of the evolution of a culture (Di Febo 2014). However, the role of textual criticism, and generally philology, has been declassified by the interest on the modern and more recent works, and the consequent detachment from the past (in particular the Medieval Age) (Fassò 2011). Di Febo (2014) noticed this lack of interest for the philological work and explained how a deeper analysis of the text can generate powerful inputs on two

different levels: the **development of a multicultural environment**, and the **reflection on the text**.

### 2.2.1 Development of a Multicultural Environment

Textual criticism arises with the intention to bring back to life the old cultural and social environments through the reconstruction of the manuscript (Salesman, 2000). The philological desire for discovery helps understand the differences and common features in cultures that seems apparently unconnected to each other. In fact, a multicultural approach in the classroom can help students to abandon the Eurocentric literary teaching, about the study of the European literature, recognizing the impact and role of foreign literatures for their own national identity development (Di Febo 2014). Furthermore, this process of linguistic recognition creates new rapports between languages that apparently seems to be extraneous to each other (Barillari 2016). This is mostly due to the translatio the text went through, where the author changes the story or the structure to better fit with the interest and desires of the readers (Di Febo 2014). The introduction of textual criticism in the classroom can be useful to examine the different perspectives and changes the authors make to create a historical and social representation analysing the pages. This approach can also develop a multicultural methodology, with the intention to connect the Medieval English literature with other literary backgrounds, pointing out the common aspects (Carlborg 2015). As a result, the implementation of a textual criticism approach for multicultural reasons educate students to develop a more tolerant behaviour, even more necessary in this period of constant globalization (Di Febo 2014).

### 2.2.2 Reflection on the Text

The role of a text is to invite readers to develop students' critical thinking through the pleasure and feelings of the story (Barillari 2014). When human beings decide to read a book or a poem reflect about their condition in the modern world and the progression behind its consolidation (Balboni 2004). The principles of textual criticism fit with students' inner desires to understand the modern mindset and how its evolution affected their literary thinking over the years. Through a creative and innovative methodology, (see Chapter 4) it is possible to elevate the role of learners from the current literary and textual analysis, based on the translation and investigation of poems or novels (Di Febo 2014). For instance, the use of hypertexts for educational purposes permits a sequential decryption of a text, amplifying the information with the addition of new notions or curiosities about the writer or the textual changes the work went through. Consequently, the application of a hypertext methodology increase the pleasure while reading and permits to compare the ideas of the readers with the message of the authors (Di Febo 2014). In an educational environment, the application of an automatized methodology gives the text new blood, helping students to develop a more conscious understanding of the story and reading the text not as an assignment but as an instrument for their personal growth (Jain 2012).

# 3. Useful Tools for Textual Criticism

In the previous chapter, Salemans' outcomes with the Algol 30 software to identify the errors have demonstrated the effectiveness of computer to define the stemma codicum to reconstruct a text (see Chapter 1). In the specific case of education and the implementation of textual criticism in the classes, it is important to distinguish the analysis on a double level: **structural**, from the general analysis of the genre to a deeper comprehension of metre, vocabulary; or **thematic**, with an interest on the topics and the writers' purposes in the book (Gnisci 2002). The analysis of both elements can be achieved through the application of two specific tools that permit researchers to define the single elements of a text and their connection with the other words (Shillingsburg 2013). These tools are:

- The T.E.I. (Text Encoding Initiative), developed in the 1980s to provide users a precise guideline for the creation and management of manuscripts, source texts and ancient documents in digital form (Burnard 2014). It also provides users of manual descriptions, the representation of primary sources and a critical apparatus (TEI 2017);
- 2. Voyant Tools, conceived to improve users' reading through the analysis of word frequency lists, distribution plots and concordance lines (Klein et al. 2015). It is "an excellent source to learn about the kinds of data that humanists can extract from Internet sources because it already supports text extraction from webpages" (Black 2016).

#### 3.1 The T.E.I. Tools<sup>25</sup>

### 3.1.1 The Purposes

The main purposes of the T.E.I. are to migrate the text from its older representation (manuscripts, codex) to a digitalized format, without compromising the validity of the text itself. It can be compared to an encyclopaedia, which contains a series of guidelines to recreate the history of a manuscript and its evolutionary phases (Burnard 2014). All T.E.I. texts are represented with the common encoding language XML, or **Extensible Markup Language**, able to represent manuscripts' information using a liner stream of character data, and labelling the relevant parts with **tags** that indicate the role of the word in the text and their relationship with relevant elements on the same structure, for instance names, dates, people, and places (Burnard 2014). The tool main purpose is to provide researchers of the necessary toolkit for:

- 1. The encoding of the text itself;
- 2. The documentation of the sources;
- 3. The documentation of the encoding itself and its peculiarities.

Through tags, it is possible to encode the text and understand the connection between its various elements. Tags can be distinguished into **general-purpose tags**, applicable to the majority of texts, and **specific-purpose tags**, suitable for texts in specific languages or scripts, texts of specific text types, or texts encoded for specific disciplinary purposes. Each group of tags is designed to fit the analysis necessities for a specific language, script, text type or discipline in order not to compromise the understanding of a text and its structure. For instance:

<sup>&</sup>lt;sup>25</sup> T.E.I. sources taken firstly from the official website: http://www.tei-c.org/index.xml (Accessed on December 2017)

```
1. <body xml:lang="en">
```

- 2. < pb n = "42"/>
- 3. This paragraph begins on the page numbered 42...
- 4. <!-- lots more text here -->
- 5. < pb n="43"/>
- 6. <!-- yet more text here --> ... and finishes half way down the page numbered 43.
- 7. This much shorter paragraph begins and ends on page 43.
- 8. </body>

The use of tags like <ml>, and <body> are necessary to define the role of words or entire sentences in the text, defining a place, a name or even the programme used for the analysis.

The simplicity of this coding scheme permits users to understand the different elements inside the text and determine their mutual relationship, even for the researchers who analyse with different programs. As marked in the guideline presented in the T.E.I. website (2017), the tool and its use should:

- 1. Suffice to represent the textual features needed for research;
- 2. Be simple, clear, and concrete;
- 3. Be easy for researchers to use without special-purpose software;
- 4. Allow the rigorous definition and efficient processing of texts;
- 5. Provide for user-defined extensions;
- 6. Conform to existing and emergent standards.

The **pragmatism** in the use of the tool and **rigour** in the analysis of the texts are essential for its good application and the production of correct outcomes. The guidelines have been developed to help researchers in any discipline based on textual materials, with particular attention on the ones that need computational

assistance (i.e. linguistics, lexicology, metrical, and more). The latest update of the T.E.I. has extended the guidelines' application also to literary studies, historical researches and other theoretical textual disciplines (TEI 2017).

Furthermore, the guidelines should be able to offer a coherent and universal guidance for the common texts analysed in textual researches, from the simplest forms like simple nonfiction, unillustrated prose narrative, poetry, plays and basic reference works, like monolingual and multilingual dictionaries (TEI 2017). Each genre has a different language and structure that needs to be analysed to understand the evolution of the text. The original purpose of T.E.I was to propose a methodology able to encode every official language studied with machine assistance in Europe and North America. However, the increasing of character encoding issues, in particular for the hardware configurations of the left-to-right alphabetic pattern of English, pushed the initiative to update the tool for the right-to-left encoding of monodirectional, multidirectional, multi-script texts and texts in non-alphabetic languages (TEI 2017).

#### 3.1.2 Text Constituents

Before introducing the tags and their function, it is important to distinguish the functions of **elements** and **attributes**:

- 1. **Elements**, which define a section of the text. In particular, they include the text strings that will be analysed (they must be opened and closed);
- Attributes, which indicate the characteristics of an element. Every
  attribute is included inside the element and can be used for more than one.
  All the attributes are followed by the sign = and their value in inverted
  commas. In contrast to the elements, attributes cannot be closed.

As explained by Burnard (2014), every TEI document (represented by means of a <TEI> element) is composed of at least two parts:

- 1. The Header, represented by the tag <teiHeader>, which contains the metadata that defines the document. Every T.E.I. text has a header with all the information that a reader can find on a printed book;
- 2. The Text, represented by the tag <text>. A text can be identified as a complete textual object that can be analysed, such as a book, an article, or a single poem or archival document, or something as small as a postcard.

As an alternative or in addition to the <text> element, the TEI also provides a <facsimile> element, to offer a complementary visual representation, for example as a series of digitized page images. For instance:

```
1 <TEI xmlns='http://www.tei-c.org/ns/1.0'>
2 <teiHeader>
3 <!-- metadata describing a text --> </teiHeader>
4 <text> <!-- a representation of the text itself -->
  </text>
5 < /TEI > 26
```

This TEI XML document states that the elements included in the text have been extrapolated from the TEI namespace http://www.tei-c.org/ns/1.0.T

The Header must include the necessary information to identify the document itself. In particular, the Header can include:

1. **<fileDesc>** (file description), which contains a full bibliographic description of an electronic file. It can also include the title (in the <titleStmt>), focus on how it is distributed or published (in the

<sup>&</sup>lt;sup>26</sup> http://www.tei-c.org/release/doc/tei-p5-doc/en/html/examples-teiHeader.html (Accessed on December, 2017)

- <publicationStmt>) and information regarding its origins (in the
  <sourceDesc>);
- <encodingDesc> (encoding description), which are documents the relationship between an electronic text and the source or sources from which it was derived;
- 3. 
  cprofileDesc> (profile description), containing a detailed description of
  the no-bibliographical elements of a text, for instance the languages and
  dialects used in the text;
- **4. <revisionDesc>** (revision description), which summarizes the revision history for a file.

On the other hand, **<text>** includes an encoded version of the text itself, represented by components such as **<front>** (for prefaces and more), **<body>**, of the proper text, and **<back>** for any appendixes. Within these components, there are also other subdivisions such as volumes, parts, chapters indicated using the tag **<div>** (Burnard 2014).

The inclusion of all these elements is represented in the TEI version of a famous novel, as it might be distributed by an imaginary digital publisher:

```
<TEI xmlns="http://www.tei-c.org/ns/1.0">
  <teiHeader>
  <fileDesc>
  <titleStmt>
  <title>The life and opinions of Tristram Shandy: TEI edition</title>
  </titleStmt>
  <publicationStmt>
7
8 <publisher>Web Head Press</publisher>
9 <date>2013</date>
10 </publicationStmt>
11 <sourceDesc>
12 Transcribed from the first edition, 1708
13 </sourceDesc>
14 </fileDesc>
15 </teiHeader>
16 <text>
17 <body>
18 <div type="volume" xml:id="TS01">
19 <div type="chapter" xml:id="TS0101">
20 <head>Chap. I</head>
```

```
21 As they were in duty both equally bound to it...
22 <!-- remainder of chapter 1 here -->
23 </div>
24 <div>
25 <head>Chapter xml:id="TS0102">
26  Then, positively, there is nothing in the question...
27 <!-- remainder of chapter 2 here -->
28 </div>
29 <!-- remaining chapters of volume 1 here -->
30 </div>
31 <!-- remaining volumes of work here -->
32 </body>
33 </text>
34 </TEI>
```

The example indicates the different divisions included in the body of a text, and their consequent subdivisions, which changes depending on the different cultures and documents' analysed; for instance, many western cultures use names such as section, part, book, or chapter (or their equivalents) to indicate the different sub-parts of the body, which may be inconsistent with other nomenclature used by other researchers. For instance, what it is called a part within a book in one text may be called a section within a chapter in another or a **book** within a **part** in a third. Therefore, the TEI proposes a single element **<div>** for any such structural subdivision of the body of a text (Burnard 2014). The **div** element is able to indicate a number of attributes, with particular attention on their functions and its properties. For instance, the use of the **@type** attribute in the previous example is useful to characterize or classify the content of the element, differentiating the <div> elements containing volumes that indicate chapters. In addition, the use of the @xml:id attribute provides a unique identifier for each division of the novel. This hierarchic structure can be applied for any kind of text. For example, an epic poem composed by more than a book can be tagged using **<div type='book'>**; a play with several acts and scenes can be tagged using <div type='act'> and <div **type='scene'>** respectively; and so on (Burnard 2014).

## 3.2. The Voyant Tools<sup>27</sup>

### 3.2.1 The Structure

Developed by Sinclair and Rockwell (2003), the Voyant Tools software is an open source website for the reading and interpretation of texts. It allows users to improve the analysis and reading of a manuscript through word frequency lists, frequency distribution plots and concordance lines (Klein et al. 2015). In addition, the recent update of the software permits the identification of part-of-speech sequences and grammatical dependency relations. Its simplicity makes it suitable not only for scholars in the digital humanities but also for students' educational purposes or the simple interest of the public.

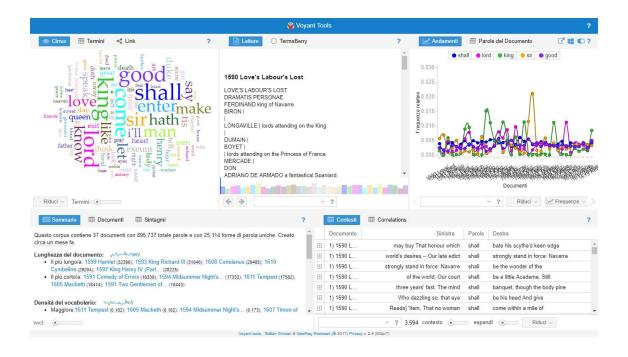
Five principal tools, according to the type of the analysis and the purposes of the research compose the software:

- 1. **Cirrus**, a word cloud that indicates the most used words in a text or a corpus;
- 2. **Reader**, the actual text, including its elements and the connection between them;
- 3. **Trends**, a line graph representing the distribution of a word across a corpus or document;
- 4. Summary, a simple, textual summary of the current corpus, including (as applicable for multiple documents) number of words, number of unique words, longest and shortest documents, highest and lowest vocabulary density, average number of words per sentence, most frequent words, notable peaks in frequency, and distinctive words (Sinclair et al. 2016);
- 5. **Contexts**, also known as **Keywords in Context**, shows each occurrence of a keyword with a bit of surrounding text (the context). It is an

<sup>&</sup>lt;sup>27</sup> Voyant sources taken firstly from the official website: http://voyant-tools.org/docs/#!/guide (Accessed on December 2017)

advantageous app for analysing the role of words in different contexts (Sinclair et al. 2016).

These tools are interconnected one to another to provide users a wide-ranging investigation. For instance, the words marked in Cirrus are hypertexts of the Trends tools, indicating the appearance of specific words in the literary corpus an author. Consequently, the words' evolution marked by Trends are connected with the Contexts app, indicating the keywords and their role inside the context (Klein et al. 2015).



#### 3.2.1 Cirrus<sup>28</sup>

The words cloud indicates the most common words in the text, positioning the most used in the centre of the scheme, in a largest. It also includes smallest words that represent the less used in the text or corpus. Word clouds are represented in a visually stimulating scheme, using different colours and shapes to facilitate the exploration and analysis of the singular elements (Sinclair et al. 2016). As previously explained, each word is connected to another Voyant tool, in order to provide the user of a more complete and comprehensive experience. The tool includes a slider called **show** that allows users to increase or diminish the number of words from 25 to a maximum of 500.



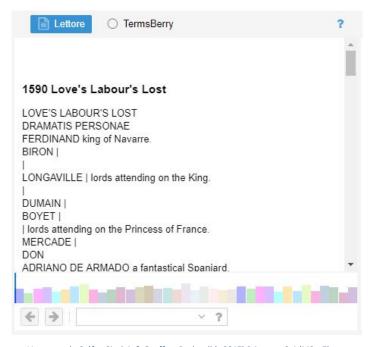
Voyant tools, Stéfan Sinclair & Geoffrey Rockwell (c 2017) Privacy v. 2.4 (M3pr7)

<sup>&</sup>lt;sup>28</sup> http://voyant-tools.org/docs/#!/guide/cirrus (Accessed on December 2017)

#### 3.2.2 Reader<sup>29</sup>

The reader tool is divided into two components: the **Text Reader** and the **Prospect Viewer**:

- 1. **Text Reader**, where the text is displayed for reading. This feature permits the users to show the frequency of words and their repetition in the text or the entire corpus;
- 2. **Prospect Viewer**, shows a general perspective of the entire corpus, arranging all documents chronologically. The bars represent vertically or horizontally the dimension of the documents, from the wider to the shorter.



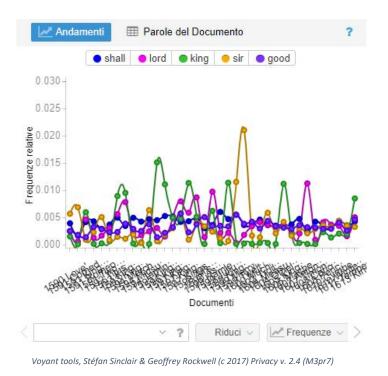
Voyant tools, Stéfan Sinclair & Geoffrey Rockwell (c 2017) Privacy v. 2.4 (M3pr7)

<sup>&</sup>lt;sup>29</sup> http://voyant-tools.org/docs/#!/guide/reader (Accessed on December 2017)

#### 3.2.3 Trends<sup>30</sup>

Trends is a line graph that indicates the frequency of words in a single document or the entire corpus, representing the distribution a word and its relation with all the other documents. Each line uses different colour to represent words, indicating their association with the other elements in the corpus. The frequency of words is relevant for the analysis of the different topics involved in the text, and their development in the entire corpus (Sinclear et al. 2016). Clicking to a specific term, it is possible to discover the correlation between the different elements and their appearance in all the texts. The graph indicates two types of frequency, **relative frequency** and **raw frequencies**:

- 1. **Relative Frequency**, indicating the terms frequency or document segment per normalized count of 1 million terms;
- 2. **Raw Frequencies**, illustrating the absolute count for each document or document segment.



<sup>&</sup>lt;sup>30</sup> http://voyant-tools.org/docs/#!/guide/trends (Accessed on December 2017)

### 3.2.4 Summary 31

As the term suggests, the summary is an overview of the entire analysis, mostly focusing on the number and frequency of words. The application contains seven categories of information in a bullet pointed list:

- 1. The first graph indicates an **overview** of the corpus, including the number of documents in the corpus, the number of words in the corpus, and the number of unique words in the corpus;
- 2. The second point elucidate the **longest** and **shortest documents** in the corpus, by number of words. It also indicates the dissemination of document length across the corpus, through a small thumbnail pic just to the right of the keyword;
- 3. The third point represents the **top vocabulary densities** and the **distribution of vocabulary** across the literary corpus;
- 4. The fourth point indicates the approximate **average number of words per sentence**, from the highest to the lower value. The sentences are approximately calculated, because of complications generated with abbreviations or punctuation;
- 5. The fifth point shows the **five most frequent words** in the corpus;
- 6. The sixth point points out the five words with the most notable peaks in frequency;
- 7. The seventh point specifies **the top five most distinctive words of each of the documents**. Clicking to *Next # of # remaining*, it is possible to navigate not only through the first five visible documents but also to the remaining non-displayed ones.

<sup>&</sup>lt;sup>31</sup> http://voyant-tools.org/docs/#!/guide/summary (Accessed on December 2017)

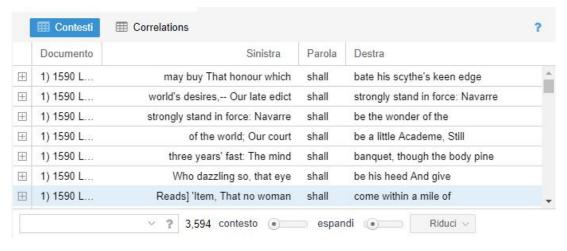


Voyant tools, Stéfan Sinclair & Geoffrey Rockwell (c 2017) Privacy v. 2.4 (M3pr7)

#### 3.2.5 Context 32

The tool shows the relationship of a keyword with a bit of surrounding text to understand better its context and the relation with it. The table shows four specific aspects:

- 1. **Document**, the document analysed and its context;
- 2. **Left**, indicating the contextual words to the left of the keyboard;
- 3. **Term**, the keyword matching the default or user-provided term query;
- 4. **Right**, indicating the contextual words to the right of the keyboard.



Voyant tools, Stéfan Sinclair & Geoffrey Rockwell (c 2017) Privacy v. 2.4 (M3pr7)

<sup>&</sup>lt;sup>32</sup> http://voyant-tools.org/docs/#!/guide/contexts (Accessed on December 2017)

#### **CHAPTER IV**

# The Didactic Module

The use of T.E.I. and Voyant Tools to teach English Literature

The methodology proposed in this chapter aims to educate students to the importance of textual criticism for the reconstruction and analysis of old hand written texts. The methodology builds its foundation on the development of:

- The consequences of technology in literary studies, to develop students' interest for the discipline;
- 2. **The importance of textual reconstruction**, through the application of the stemma codicum and textual criticism tools;
- 3. The correlation between the past and the future, using medieval texts to interpret and discuss modern subjects and develop students' critical thinking.

Furthermore, the proposed methodology provides both teachers and students instruments and exercises that avoid the traditional teaching based on learning by rote, focusing on a deeper understanding of the texts and their features.

## 1. Purposes

The target of the methodology is to increase awareness about textual criticism in students through a structural and thematic analysis of *King* Horn and *Havelock the Dane* (see Chapter 3), using the **T.E.I.** and **Voyant Tools** (see Chapter 2, Paragraph 4). The module is divided in 12 didactic, which are designed for a classroom with an average of twenty 19 years old students (Scuole Superiori – English Level B1+<sup>33</sup>). The duration of the module will be approximately 30 hours. This methodology aims to:

- 1. Educate students to conceive the **text as a living organism**, influenced by external factors like the historical period or the cultural background (see Chapter 3 Paragraph 2.1);
- Discover and discuss the English culture and develop a sense of multiculturalism;
- 3. Use of the texts to convey **linguistic enrichment**, using interesting messages and themes, telling stories, describing human experiences and creating alternative worlds (Della Valle 2014);
- Decode the structure in the text, to facilitate its interpretation and the study of its mechanism, indicating the different rules of poetry: rhetorical figures, repetitions, similarities and differences of the grammatical rules studied;
- 5. Facilitate the passage from a **referential** analysis of the text to a **representational** one, focused on the informational proprieties of the language such as themes and characters' meanings (McRae 1991);
- 6. Promote a **dynamic learning environment**, using computers and important instruments for textual criticism studies to increase curiosity and facilitate the study of chivalric literature.

<sup>&</sup>lt;sup>33</sup> http://www.camera.it/parlam/leggi/deleghe/05226dl13.pdf (Accessed on January, 2018)

## 1.1. English Culture and Multiculturalism

As described by Milner (1996), literature indicates four perspectives of a country and its social and cultural background:

- 1. The individual habits of mind;
- 2. The intellectual development of an entire society;
- 3. **The arts**;
- 4. The whole way of life of a group of people.

In particular, a literary text is intended for a social value, as indicator of a country's cultural identity, embracing the subcultures of gender and sexuality, race and ethnicity, generation and nationality (Milner 1996). A text portrays the authors' conceptions and representation of societies, helping the reader to embrace the writers' artistry and contextualize it. These texts represent the culture where they emerged, its historical background and the necessities of the audience (Nostrand 1996). As previously discussed, Di Febo (2014) and Barillari (2016) enhance the medieval text and textual criticism to improve multicultural behaviour, studying the evolution of the language to embrace the English (or any foreign language) cultural evolution. From this point of view, the proposed methodology gives new viewpoints to the text, using its themes and concepts to fully understand English Medieval culture, through the analysis of some fragments from Havelock the Dane, in particular concentrating on the role of women in the story (see Chapter 2, Paragraphs 1.3 and 4.1), the different variations of power (see Chapter 2, Paragraph 4.2) and the characters' humility (see Chapter 2, Paragraph 4.3). These themes will be analysed according to their modern conception, comparing the medieval themes with events that impacted modern societies.

## 1.2. Linguistic Enrichment

The introduction of textual criticism in the classroom produces a new relationship between the student-reader and the text by accepting it in its primal form. Palmar and Jover (2012) explain the similar linguistic outcomes produced by a literary linguistic analysis and a grammatical approach. On the one hand, teachers focus the attention on the metrical rules, the syntax, the collocation, and the coherence among the different parts of the poem. On the other hand, there is a more technical use of the language based on the grammatical rules, the structure of the discourse, and its cohesion. These aspects are generally discussed in two different syllabuses, which are separated despite their similarity. The development of linguistic enrichment in the classroom can generate positive outcomes such as:

- 1. The appreciation of authentic materials, analysing the style and grammar of a text in a particular historical time. Texts like *King Horn* and *Havelock the Dane* contain many figures of speech and stereotypes typical of the 13<sup>th</sup> and 14<sup>th</sup> centuries. Learners can use these sentences to understand different shades of a language, from its cultural influence to the grammatical expressions (Collie et al. 1990);
- 2. The development of students' interpretative abilities, due to the different levels the text has. A comparison between an ancient grammatical feature and the modern use of the language can help students to grasp the different values of a literary text, conjecturing its different meanings (Palmar et al. 2012);
- 3. The cohesion between language and literary knowledge, integrating the grammar and literary syllabus. The analysis of ancient texts improves in students the ability to recognize a grammatical structure and compare it with other structures. They can recognize two similar structures of different historical times and compare them to hypothesize their evolution (Palmar et al. 2012);

4. The reflection on the language, as a living and dynamic organism. Students are able to make their own supposition regarding the text, expanding their knowledge and awareness of the language (Hişmanoğlu 2005).

The methodology invites students to plunge into the text, embracing its identity and process of reconstruction. For instance, exercises such as the indication of evolution of words and the comparison between the *King Horn*'s manuscripts can help the students to appreciate the different linguistic patterns of a text, from the mutation of a diphthong to the semantic changes.

## 1.3. The Decoding of the Text

The decoding of a literary text in high schools or universities is distinguished by **interpretation**, which assumes a double meaning. On the one hand, the interpretation of the text in high school focuses on the **understanding** of the text, in particular what it is about (Kusch 2009). For instance, teachers organize the didactic unit to the identification of the character, the plot, or the topics.

On the other hand, the interpretation of the text changes in university, where the role of the teachers is to develop students' independent and critical **elucidation** the text, what it means and why it is important (Kusch 2009). The didactic unit in literature develops students' critical thinking and provides new points of view, also to solve problems in real life situations. Literature is focused more on the study and analysis of an ideology, and the influence it has had on people.

In both circumstances, the role of the students is to interpret the meaning and the characteristics of a literary text, focusing on the language and its culture, the linguistic evolution, the representation of society, and the correlation with the previous literary ideologies (Kusch 2009).

The principal aim of the proposed methodology is to create a bridge between these two different didactic purposes, giving space to the stylistic and linguistic analysis of the text and the cultural and thematic elements it contains. In addition, the exercises are focused on helping to understand the relationship between the literary styles and their topics. The style used to write a text embraces different aspects like:

- 1. **The genre**, in this specific case the **chivalric romance** and the portraying of the courtly manners and the women's idealization of love (see Chapter 2, Paragraph 1.1);
- 2. **The narrative structure**, in this case the hero's journey from the integration of the character in society after his personal loss, to the reintegration of the hero and the celebration of curtly love (see Chapter 2, Paragraph 1.2);
- 3. **The role of characters in the plot**, and the union of their different stories in one singular narrative thread;
- 4. **The different aspects of the poetic language**, and all the literary figures such as metaphors, rhymes, and metre (see Chapter 2, Paragraph 3);
- 5. The influence on the students' knowledge, discussing the moral and social issues in the poem and comparing them with the students' vision of society, creating a continuity between the past and the present. As pointed out by Kusch (2009), literary analysis aims to use the language as a representation of the social and human experiences, comparing the author's idea with the students-readers' interpretation.

## 1.4. From Referential to Representational

McRae (1991) introduces the differences between referential and representational materials in the L2 classroom. The difference highlights the passage from Jakobson's referential language focused on deixis and description to the representational language centred on the meaning and the readers' imagination (Sample 2014).

The referential materials used in schools are based on the improvement of pronunciation, vocabulary or grammar. There is not a critical thinking on the value of words but an analysis of their meaning on at a dictionary level (Sample 2014). This educational approach explains the grammatical role of words, distinguishing the correct and incorrect forms, or the formal and informal registers.

Representational materials examine the language on a different perspective. The representational language takes into consideration also secondary factors like the social situation, the political constraints, and also students' linguistic ability, their attitudes and desires (McRae 1991). In fact, its principal aim is to develop a critical analysis of the words and their implication for the understanding of the text, starting from the referential use but also involving **thinking**. Students use their personal knowledge of the topic and are involved in the creation of new concepts and meanings (Sample 2014). McRae (1991) invites teachers to embrace the relevant themes developed in the classroom to improve students' different social and cultural backgrounds. He also explains that the implementation of representational materials in the classroom encourages students to expand their reading competences in three different ways:

- 1. **Extension of reading range**, understanding the different variations of a literary text, with particular attention to the lexical and syntactical choices;
- 2. **Extension of reading scope**, focusing on the students' literary choices and taste. Representational texts encourage students to intensify the pleasure of reading and analyse the various themes in a modern key;

3. **Extension of affective reading**, showing the readers' emotional and intellectual involvement with the text.

The methodology proposed in this chapter focuses its attention on the referential and representational values of the text, because the former does not exclude the latter. The selected fragments of *Havelock the Dane* and *King Horn* contain both structural and thematic aspects. Furthermore, the application of Voyant Tools and T.E.I. will help students to identify the common words used in the poem and understand the different meanings they assume in the texts. In conclusion, these exercises will demonstrate the correlation between the structure and the themes, also promoting students' autonomy to understand the text.

## 1.5. Dynamic Learning Environment

The use of computers and tools of textual criticism in literature studies aims to promote an innovative study of the discipline, improving the students' engagement and increasing the discussion and exchange of information (Sariyasa 2017). The application of Voyant Tools and T.E.I. encourages students to analyse the correlation between the different parts of the text, for instance discovering new shades of the same topic (Der Meij et al. 2006). As discussed by Di Meij and De Jong (2016) the use of computer predominantly stimulates the visual analysis of a literary composition, using diagrams, images or graphs. These elements are important for a conscious understanding of the text and the elements that compose it<sup>34</sup> (Balboni 2014).

This **dynamic learning environment** motivates students thanks to a more interactive, inductive and immersive methodology (McRae 1991). The

<sup>&</sup>lt;sup>34</sup> Balboni (2016) defines these as **paratext**, which aims to facilitate the interpretation of what is discussed in the central text. These elements are often ignored by students, but they include notions that complete the text or simplify its meaning.

methodology of this chapter proposes a switch from the traditional teaching methodology based on the unilateral transmission of the information and the metrical analysis of the text to a more conscious and student-centred study of literature. In addition, the use of tools for textual criticism researches will help learners to develop important outcomes:

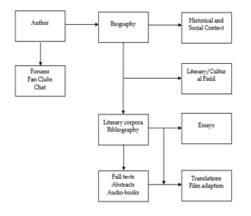
- Develop the interpretation and redrafting of information, using the computers to discover new concepts and enlarge students' knowledge (Balboni 2004);
- 2. **Discover the necessity of literature**, investigating the evolution of an ideology over time and maturing critical thinking to compare the previous and modern schools of thought (Balboni 2004);
- 3. **Mature the pleasure of literature**, using computers and software that increase the interests in students (Balboni 2004). For instance, the use of interactive whiteboards helps students to concentrate their interest on specific parts of the text to facilitate the assimilation of a topic;
- 4. **Help students with a low self-esteem**, improving their competences through a technical and cooperative approach. Students benefit from a dynamic methodology, which can also offer them a creative and immersive study (Balboni 2004).

## 2. Reference Models

## 2.1 Holden's Scaffolding Method

The methodology uses the **scaffolding** approach, in particular the graphic reinterpretation by Holden (2004) for the representation of authors' biography and literary corpora. In particular, Holden (2004) uses the line graphs to indicate the connection between the different elements that characterize the author (see **figure A**<sup>35</sup>). The structure resembles the **model of the stemma codicum** with some differences (see **figure B**<sup>36</sup>).

The concept of scaffolding (Ita. *impalcatura*) was introduce for the first time by Bruner, Wood and Ross in 1976 to describe young children's oral acquisition. Their theory illustrates that an experienced person can assist a less experienced person to achieve a goal or solve problems<sup>37</sup>.



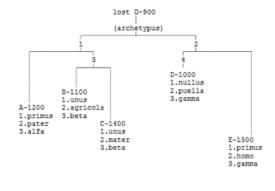


Figure A - Holden' scaffolding scheme (2004)

Figure B - Salemans' stemma codicum scheme (2000)

<sup>&</sup>lt;sup>35</sup> Graph taken from Holden, L. R. (2004). *Dall'esplorazione della rete alle schede-autore*. in Educazione Letteraria e Nuove Tecnologie (P. E. Balboni, Ed.). Torino: Utet Libreria.

<sup>&</sup>lt;sup>36</sup> Graph taken from Salemans, B. (2000). *Building stemmas with the computer in a Cladistic, Neo-Lachmannian, way: the case of fourteen text versions of Lanseloet van Denemerken*. Nijmjemen: Katholieke Universiteit Nijmegen. (see Chapter 1, Paragraph 2.1)

<sup>&</sup>lt;sup>37</sup> http://www.icsangiovannibosco.gov.it/wp-content/uploads/2016/08/scaffolding-emotivo-e-cognitivo.pdf (Accessed on January, 2018)

In the didactic field, Holden's method is divided in four steps:

- 1. Teachers start with defining students' **linguistic and digital abilities** to understand the starting level. They also provide students the **necessary information** to facilitate the task, for instance an example of graph that indicates the author's features (Holden 2004);
- 2. Teachers guide students in the composition of the authors' graphs, helping students in choosing the relevant and minor points. Before this phase, teachers will previously select the relevant authors for the curricula, avoiding secondary authors that can slow down the educational process. The research will be done using schoolbooks or web search engine (Holden 2004);
- 3. Students will start the analysis of the collected information and include these in the graph. During this phase, teachers will indicate students the authors and the best way to create the line graph. In addition, they will indicate which aspects students have to focus their attention and distinguish the relevant and optional information (Holden 2004);
- 4. After the creation of the line graph, students will write a final essay that includes all the points analysed. Teachers can verify each students' results using debates to demonstrate the different visions authors have of the same topic. This method can reduce the curricula time and establish a motivating and immersive environment (Holden 2004).

This approach gives students the possibility to create a library with all the information of each authors, which can be updated during the academic year with new sources, reviews or movies. This collection will be resumed in:

1. **A database**, or a monographic catalogue that students can access to retrieve all the collected information (Holden 2004);

2. **A catalogue**, which includes the information collected by students in small portfolio with old and new information that students can consult during the school year (Holden 2004).

## 2.2 Inclusive Pedagogy

### 2.2.1 The Characteristics

The second and third phases of the methodology build their foundations on the principles of **inclusive pedagogy**, which aims to involve more students in the learning process through the application of "active exercises" (Sandre et al. 2012). Inclusive approach promotes each students' abilities (Spratt at al. 2015). In particular, this pedagogy encourages:

- The participation of students, in particular students who have a different cultural heritage or severe disabilities. The inclusive pedagogy develops the concept of equality in the class, breaking barriers and recognizing the aspiration and desires of each student (Sandre et al. 2012);
- 2. **The integration** of students, promoting each individuals' potentialities. For that reason, teachers have to develop didactic units able to discover and develop each students' abilities, promoting their interests and motivation (Tessaro 2002);
- 3. **The inclusion** of students, inside and outside the school. The method does not limit its principles to the educational environment, but promotes a sense of inclusion also in ordinary situations. Students apply what they have learnt to develop their abilities and be more conscious of their future (Sandre et al. 2012).

If implemented, these aspects could determine the learning competences of a student, removing the limits students might face. In fact, Claxton (2009) explains how a negative environment can negatively affect the educational process. For

instance, a positive interaction between students with different cultural heritages can improve their intellectual and cultural behaviour inside and outside the classroom. Thus, inclusive pedagogy recognizes the qualities of each student, improving their abilities through an immersive and effective methodology (Alexander 2004).

To promote the collaboration between students, inclusive pedagogy proposes several practices based on mutual collaboration and the development of an inclusive community (Spratt at al. 2015). In particular, the exercises used to teach *King Horn* and *Havelock the Dane* will focuses on two approaches of inclusive pedagogy: the **operative method** and the **interactive method**.

### 2.2.2 *The Operative Method*

The **operative method**, also known as **didactic laboratory**, focuses on new ways to analyse and understand reality, developing new methodological approaches for teachers and creating a co-operative and motivating learning environment (Fasano and al. 2001). The word laboratory does not indicate just the physical space where the approach occurs, but also the series of mechanisms that improve students' knowledge and centralize their abilities (Tessaro 2002). In particular, these mechanisms are based on:

- 1. **The application of theory**, giving students the instruments to put into practice the notions previously acquired (Tessaro 2002);
- 2. **The development of students' reasoning skills**, using new mental tools that can be adopted also outside the school (Tessaro 2002);
- 3. The analysis of various levels of interpretation, comparing and debating each students' points of view (Tessaro 2002);
- 4. **The growth of students' motivation**, stimulating their interests and self-confidence (Tessaro 2002).

These guidelines clarify the centrality of students in the method, with the main intention to overcome the passive and superfluous approach of traditional lessons (Boscarino 2004). In addition, these abilities are presented in the DM 22/08/2007 of MIUR (2007) that emphasizes the centrality of students' needs. In particular, the Ministerial Decree points out how:

Motivation, curiosity, and collaboration are the components that improve the individual's knowledge and permit their full realization, also establishing their attitudes and potential. Furthermore, they can offer significant contributions - with reference to the cultural differences - to the didactic methodologies, enhancing laboratory work and a learning environment centred on experience<sup>38</sup>

Bertocchi (2010) tries to translate the indications presented in the ministerial decree, designing a cooperative approach based on the grammatical analysis of sentences. Inspired by Lo Duca (1997), Bertocchi introduces a series of exercises to explain the differences between two Italian tenses, imperfetto and passato remoto. The particular aspect of these exercises is the absence of theory before the exercises, because teachers want to improve students' logic, discussing and formulating hypothesis.

https://archivio.pubblica.istruzione.it/normativa/2007/allegati/all\_dm139new.pdf (Accessed on January, 2018)

<sup>38 [</sup>La motivazione, la curiosità, l'attitudine alla collaborazione sono gli aspetti comportamentali che integrano le conoscenze, valorizzano gli stili cognitivi individuali per la piena realizzazione della persona, facilitano la possibilità di conoscere le proprie attitudini e potenzialità anche in funzione orientativa. A riguardo, possono offrire contributi molto importanti - con riferimento a tutti gli assi culturali metodologie didattiche capaci di valorizzare l'attività di laboratorio e l'apprendimento centrato sull'esperienza]

### 2.2.3 The Interactive Method

The **interactive method** consists in creating activities that stimulate and mature students' abilities in a collaborative and self-evaluating environment (Boghici 2011). In this context, teachers' role is to harmonize the activity, helping students to organize their ideas and facilitate the improvement of their learning skills (Boghici 2011).

The principal purpose of this method is to increase student's independence in the educational process, in particular it stimulates the development of a self-learning environment in which they can have full control of their choices and have more initiative (Yakovleva 2014). In contrast to the competence-based approach, the interactive method builds its foundation on developing students' integrative skills and their abilities to operate in different contexts at first hand (Yakovleva 2014). Tessaro (2010) explains how the role of an interactive method is to provide students with the necessary toolkit to develop their critical thinking, in particular:

- 1. The vivid participation of students in the learning process, involving not only their knowledge but also their personality (Tessaro 2010);
- 2. **The check of the information (feedback)**, followed by the confirmation or the correction (Tessaro 2010).

The interactive method can be executed following various approaches, from the **simulation** and **interpretation** of a role to understand the effects of interpersonal relations to the **analysis of real cases** to develop students' analytic competences (Tessaro 2010). In the specific case of the methodology that will be proposed in the following paragraph, it is important to concentrate the attention on **the operative approach**, generally known as **learning by doing**.

The **operative approach** seeks to define students' technical and operational abilities through various steps that will be guided and verified by the teachers themselves (Tessaro 2010). This method can be developed using different activities like games or debates. However, Yakovleva (2014) identifies a common

structure that can be shaped depending on the purposes of the activity:

- 1. **Introduction**, setting the tone for the following steps with the intention to create a serene atmosphere (Yakovleva 2014);
- 2. **Discover**, comparing each students' ideas of a topic with the intention to develop their communication skills. For instance, a small presentation of students' idea of a topic can display their different visions (Yakovleva 2014);
- 3. **Expectations of participant**, asking students what they expect from the activity, comparing teachers' expectations with students' necessities (Yakovleva 2014):
- 4. Adoption of the rules, Teachers and students organize an agreement, containing all the rules that must be followed during the activity (e.g. speak out of turn; listen to off-topic conversations and more). The agreement will centre the attention of students on the purposes of the activity, avoiding misunderstanding and distractions (Yakovleva 2014);
- 5. **Actualization of the topic**, inviting the participants to discuss a theme, boosting the interest in students on an issue (Yakovleva 2014);
- 6. Education, based on the interaction between teachers and students. This phase is divided in two parts: the first one is the discussion of topics that were left aside answering questions given by the teacher. The second one is practice-oriented to help students in the acquisition of practical experience (Yakovleva 2014);
- 7. **Summing up**, to include the final thoughts of the procedure in form of letters, articles, and essays (Yakovleva 2014).

In the following paragraphs, the attention will be focused on the use of creative approaches like talk shows, in which students debate an event or a topic, and quiz games, in which students are divided in groups and have to answer questions provided by the teachers (Balboni 2014).

## 3. Methodology

## 3.1. The Targets

The module aims to understand the evolution of a text over the time, analysing its changes on two different levels, linguistic and thematic:

- 1. The **linguistic analysis** will help students to understand not only the elements that compose a literary text but also the changes that prouced the text studied at school. In fact, the first didactic units will introduce the process used by philologists to recreate the original text and the elements that facilitate its development. In the case of King Horn, students and teachers will analyse specific aspects like the narrative style and the metrical structure and understand the evolution from one manuscript to another;
- 2. The **thematic development** of the text aims to demonstrate the connection between the past and the future, highlighting their differences and similarities. The use of *Havelock the Dane* is not casual at all. The work distinguishes itself from the traditional medieval literature because it investigates with pioneering approaches themes that are still relevant like the role of women and the pros and cons of a good politician. These themes open the doors to discussions and comparisons to understand the changes in two historical periods.

These aspects are at the centre of the learning module. However, each didactic units is designed to mature students' literary and philological knowledge on various perspectives, all associated by the necessity to:

1. **Improve their critical thinking**, analysing the evolution of a literary text from the Middle Age to the Modern Age. In particular, students will understand the function of each words and their roles and meanings in

the text. Tools like T.E.I. and Voyant Tools indicate the functions of each word in the text. The first explains the connection between words and their functions; the latter explains the semantic role of words according to their position in the text.

- 2. Understand the linguistic changes in the text, and the factors that might have influenced them, for instance the historical period, the social background or readers' cultural background. The comparison between Middle English and Modern English improves students reasoning skills, debating the causes of a linguistic change and highlighting the similarities and differences in grammar, rhetorical figures, themes and more;
- 3. **Promote the use of computers in the classrooms**, improving students' engagement and increasing the discussion and share of information. The use of computer stimulates the exploration of a literary texts, stimulating a conscious understanding of the elements that compose it;
- 4. **Develop an idea of a community**, in which students can share their opinions without being judged. Students can discuss about the evolution of a literary text and formulate ideas on their causes and consequences.

#### 3.2. Teachers' Role

The role of the teachers in this module is to facilitate the understanding of the topic, helping and assisting students during the assignments. The use of Voyant Tools and T.E.I. can disorientate and distract students from the real purposes of the module, because of the complexities they might present. For this reason, teachers have to introduce it clearly but effectively, focusing on aspects that might be useful for the pursuit of the fixed objectives.

This means that the role of teachers in the module is to facilitate the understanding of the evolution of the language and the instruments that enable it. For instance, they have to guide students in the analysis of the different constituents of T.E.I. and Voyant Tools and check that students are following the

indication of the exercise. In fact, their presentation of the topic should not reduce the importance of the task itself. A long and notion-based presentation can reduce the students' interest, while a short and interactive presentation can help them in focusing the attention on the importance of language evolution, avoiding distractions and reaching the fixed targets.

#### 3.3. Materials

The principal instruments that will be used by both students and teachers in this module will be:

- 1. **The T.E.I.**, for the analysis of the features that generate a digital text. Teachers and students will primarily use **<tags>** to detect the elements in the texts and underline their connections. For instance, student will use tags to indicate the omniscient narrator and the free/indirect narrator in a selected fragment. Furthermore, these tags will be used later to indicate the connection of words in the story.
- **2. Voyant Tools**, for the analysis of words and their significance in the texts. Students and teacher will mainly use three apps of the software:
  - **Cirrus**, for the selection of the principal words (see Chapter 3, Paragraph 3.2.1);
  - Reader, to locate the words in the text and distinguish them according to the event and the topic (see Chapter 3, Paragraph 3.2.2);
  - **Context**, to understand the meaning of each word (see Chapter 3, Paragraph 3.2.5).
- 3. **The interactive whiteboard** (Ita. LIM Lavagna Interattiva Multimediale), will be used to show and compare the characteristics of Middle English in

the manuscripts. Several studies have demonstrated the efficacy of the instrument in the educational process, improving its quality and students' reactivity<sup>39</sup>. Students' will be more responsive and curious to the topics, encouraged by the practicality of the device and attraction.

**4. Word Office**, which will be used to create the stemma codicum or to write small essays.

<sup>&</sup>lt;sup>39</sup> http://hubmiur.pubblica.istruzione.it/web/istruzione/piano\_scuola\_digitale/lim#tornasu (Accessed on January, 2018)

### 3.4. The Didactic Units (Duration 30 hours)

*Didactic unit n°1: Who is a philologist? (Duration 1 hour)* 

The didactic unit introduces the role of philologists and the principal methods for the reconstruction of old manuscripts. The target is to give students a complete background of the principles and history of the discipline. In particular, teachers will introduce the Lachmannian Method and focus on the role of the stemma codicum to recreate the manuscripts pedigree. Teachers can use the example of the stemma codicum presented by Salemans (2000) to illustrate its structure and the various components (see **figure**<sup>40</sup>). The didactic unit will conclude with a test with open or multiple-choices questions to check students' understanding of the topic and clarify any misunderstanding. For instance, some questions could be structured as follow:

- 1. What is the Lachmannian method?
- 2. *Philologists' role is to*:
  - Discover the historical and linguistic development of humankind
  - o Create new texts using technology
  - o Find the connection between the old and the new

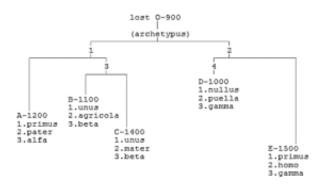


Figure - Salemans' stemma codicum scheme

<sup>&</sup>lt;sup>40</sup> Graph taken from Salemans, B. (2000). *Building stemmas with the computer in a Cladistic, Neo-Lachmannian, way: the case of fourteen text versions of Lanseloet van Denemerken*. Nijmjemen: Katholieke Universiteit Nijmegen. (see Chapter 1, Paragraph 2.1)

### Didactic unit n°2: It's all about the errors (Duration 1 hour)

The analysis of the stemma codicum will continue with the definition of Maas' common errors method, which are the principle elements used by philologists to create the stemma. In particular, teachers will focus on the role of errors to define the relationship between two or more manuscripts. As seen before, Mass divides the errors into separative and conjunctive errors. The complexity of the topic needs a distinct didactic unit to concentrate the attention on these essential elements. This unit will adopt the same test structure with multiple choice or open questions to verify students' competences. The first two units will give students the instruments to create a stemma codicum in the following unit.

### Didactic unit n°3: Let's create a stemma! (Duration 3 hours)

The first two units have introduced the topic and provided students of the notions to understand the different elements that compose the stemma codicum. During this didactic unit, students will put in practice what they have learnt and create a stemma codicum, using newspapers articles to identify the evolution of a topic over time. In particular, they will follow the concepts of **independence** and **interconnection** of Mass' common errors method. The purpose of this unit is to understand the evolution of a text and the elements and rules that permit the reconstruction its story. The exercise will be structured as follow:

1. **First step**: Using web search engines like Google Search and Yahoo Search, find three small articles written in different times that discuss in broad terms the same topic.

Students will use web search engines to find three small articles written in different times that discuss in broad terms the same topic. In the following example, students use three articles from the Guardian, the Independent

and the Australian that analyse the same topic in broad terms, which is the topic chosen is the North Korean missile threat..



**Article 1 -** *North Korea threatens 'nuclear storm' against China as ally makes pact with US;* 

**Author**: Serina Sandhu **Date**: 01/04/2016

**Publisher**: The Independent

**URL**:http://www.independent.co.uk/news/world/americas/us-and-china-agree-to-oppose-north-korea-nuclear-programme-

a6962901.html



**Article 2 -** North Korea: ballistic missile launched over Japan – as it happened;

Author: Claire Phipps, Graham Russell

**Date**: 14/09/2017

**Publisher**: The Guardian

**URL**:https://www.theguardian.com/world/live/2017/sep/15/north-korea-launchesmissile-over-japan-live-updates



**Article 3 -** *North Korea fires new missile over Japan;* 

Author: Unknown Date: 15/09/2017

**Publisher**: The Australian

**URL**:http://www.theaustralian.com.au/ne ws/world/north-korea-fires-missile-toward-

sea-of-japan/news-

story/3e5b762a2ad7345eff3fe9b4217fa62f

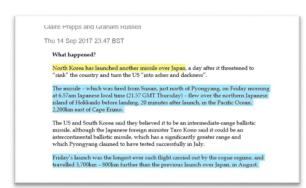
2. **Second step**: Find the differences and similarities in the articles using the same principle of Maas' separative and conjunctive errors guides.

Students read the articles to define their independence or correlation, following the principles of Maas' **separative** and **conjunctive** errors. In particular, they have to mark in **yellow** the general topic of the articles (the threat of North Korean ballistic missiles), in green the aspects that demonstrate their independence and in blue their interrelationship:



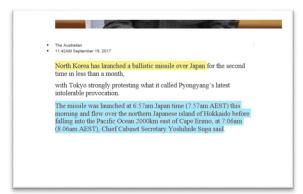
**Article 1 -** North Korea threatens 'nuclear storm' against China as ally makes pact with US;

The article discusses the launch of North Korean ballistic missiles, but it focuses on U.S.A. President Obama and Chinese minister Xi Jinping's global nuclear summit (see **Attachment 1**)



**Article 2 -** *North Korea missile lands in Sea of Japan, Pentagon says;* 

The article focuses on North Korea and the launch of a ballistic missiles on the Japanese sea in September 2017; (see **Attachment 2**)

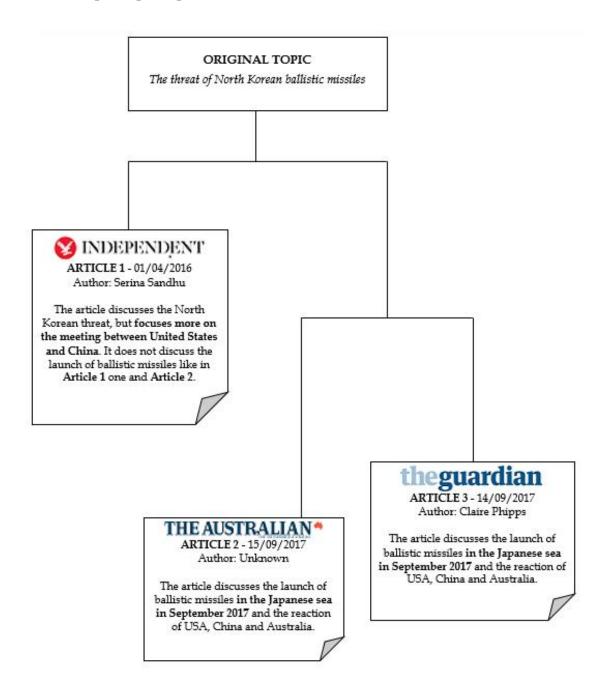


**Article 3** - North Korea fires new missile over Japan;

The article focuses on North Korea and the launch of a ballistic missiles on the Japanese sea in September 2017; (see **Attachment 3**)

3. **Third step**: *Create a stemma codicum using the information obtained from the three articles.* 

Students have to create a stemma codicum using the example previously given by the teacher. It has to include the **author**, the **date**, the **publisher** and the **reasons** of the classification. The **hypothetical archetype** indicates the principal topic discussed in the three articles.



4. **Fourth step**: Write a small essay that includes the information of the stemma codicum and retrace the evolution of the story.

This didactic unit is conceived as a recap of the previous information. Students will use the information derived from the stemma codicum of the three articles to create a small text (max. 150 words) that includes the information of the stemma codicum. At the end of this unit, students will be able to understand the importance of a stemma to identify the changes of a text over time. An example of the exercise could be the following one:

# Write a small essay that includes the information of the stemma codicum and retrace the evolution of the story.

North Korea's launch of ballistic missiles in the past two years has threaten the world, in particular Japan, China and United States. Despite the UN sanctions and calls from different world leaders, North Korean dictator Kim Jong-un is preparing a nuclear storm against all his enemies, threating the stability and security of the neighbouring countries. In particular, the launch of the missiles in the Japanese sea on September 2017 has provoked the reaction of the Japanese authorities, who have strongly protested the dictator's actions and his recklessness. UN Security Council and the NATO are constantly meeting to understand the situation and implement additional sanctions to lessen the North Korean power. (110 words)

## Didactic unit n°4: Do you know Middle English? (Duration 1 hour)

The previous didactic units have introduced students to the process of reconstruction of a manuscript, highlighting the causes of its changes of and the instruments to recreate its pedigree. The next didactic units will discuss the evolution of texts on a double level: the linguistic changes, using the handwritten texts of *King Horn*; and the thematic evolution, using the themes of *Havelock the Dane*.

During the next exercises, students will work with handwritten texts in Middle English. For this reason, it is important to verify their knowledge of the language before introducing the texts of *King Horn* and *Havelock the Dane*. The aim of this didactic unit is to jog the student's memory and help them to understand the words that they will select. For instance, students can read some fragments of the *Canterbury Tales* by Jeffrey Chaucer and try to translate them. This exercises should be designed as a game to help students to remember the evolution of the text and clarify any misunderstanding about the Middle English language (these students have already studied the *Canterbury Tales* the year previously as part of their literature programme)

## Didactic unit n°5: Let's talk about King Horn (Duration 1 hour)

After a brief reflection on the Middle English language, teachers introduce *King Horn*, emphasizing the importance of the three manuscripts and their linguistic evolution. In particular they will focus on the changes in the **narrative style**, the **versification** and the **dialects**. The main purpose of this unit is to give students essential information regarding what will be used in the next didactic units. As done in the first didactic units, teachers can verify the understanding of the topics with open or multiple-choice questions tests. For instance, some questions could be structured as follow:

- 1. What is the role of the free narrator in the story?
- 2. The manuscripts are rich of:
  - Lines with three accents and feminine rhyme
  - o Lines with four accents and masculine rhyme

## *Didactic unit n°6: What is T.E.I.? (Duration 3 hours)*

After the presentation of *King Horn*, this didactic unit introduces one of the tools that will be used for the analysis of the linguistic evolution in the three manuscripts. Teachers will present the T.E.I and its role in the representation of literary texts in digital form. The aim of this didactic unit is for the student to become familiar with the T.E.I., using simple and effective exercises to understand the elements that constitute it, in particular <tags>. In particular, teachers will describe the function of tags that students will find in the next unit, which are:

- 1. **<teiHeader>** (the T.E.I. Header), which supplies descriptive and declarative metadata associated with a digital resource or set of resources;
- 2. **<fileDesc>** (file description), which contains a full bibliographic description of an electronic file;
- 3. **<titleStmt>** (title statement), which groups information about the title of a work and those responsible for its content
- 4. <respStmt> (statement of responsibility), which supplies a statement of responsibility for the intellectual content of a text, edition, recording, or series, where the specialized elements for authors, editors, etc. do not suffice or do not apply. May also be used to encode information about individuals or organizations which have played a role in the production or distribution of a bibliographic work;
- 5. **<publicationStmt>** (publication statement), groups of information concerning the publication or distribution of an electronic or other text;

- 6. <sourceDesc> (source description), which describes the source from which an electronic text was derived or generated, typically a bibliographic description in the case of a digitized text, or a phrase such as "born digital" for a text which has no previous existence;
- <encodingDesc> (encoding description), to document the relationship between an electronic text and the source or sources from which it was derived;
- <speaker> (speaker), which contains a specialized form of heading or label, giving the name of one or more speakers in a dramatic text or fragment.

Teachers can test the understanding of tags and their role in the text presenting on the interactive whiteboard examples taken from the website of the T.E.I. guidelines, indicating a specific tag and asking its meaning and function.

## *Didactic unit n°7: The double narrator (Duration 3 hours)*

The purpose of this unit is to understand the role of the narrator in the text and his functions in the text. In particular, students have to indicate the **omniscient** and **free/impersonal narrators** in the T.E.I. version of *King Horn* projected on the interactive whiteboard. This exercise aims to demonstrate the different roles the narrator can have in the story. In particular, it aims to show how not only the narrator can shape each character's storyline but also the characters themselves have the power to define their actions. In this exercise, students' task is to put the names Free Narrator or Omniscient Narrator between tags <speaker> and </speaker> to indicate them in the fragment. For instance, the exercise could be structured as follow:

Put the names Free Narrator or Omniscient Narrator between tags <speaker> and </speaker> to indicate the omniscient and the free/impersonal narrators.

```
1
     <TEI xmlns= http:// www.liceotroya.gov.it/
2
     <teiHeader>
3
     <fileDesc>
4
     <titleStmt>
5
     <title>King Horn: an exercise for high school students</title>
6
     </titleStmt>
7
     <respStmt>
8
     <resp>exercise executed by</resp>
9
     <name>Mario Rossi</name>
10
     </respStmt>
11
     <publicationStmt>
12
     <distributor>Liceo Classico Carlo Troya</distributor>
13
     <addrLine>Via Raffaello Sanzio 1, 76123 Andria BT</addrLine>
14
15
     </address>
16
     <availability>
17
     Freely available on a non-commercial basis.
18
     </availability>
     <date when="2018">2018
19
20
     </publicationStmt>
21
     <sourceDesc>
22
     http://d.lib.rochester.edu/teams/text/ king-horn.
23
     </sourceDesc>
24
     </fileDesc>
25
     <encodingDesc>
26
      An exercise to understand the role of the free and omniscient
27
     narrators in the fragments. Students have to
28
     insert the words Free Narrator or Omniscent Narrator between the
29
     tags <speaker> and </speaker>.
30
     </encodingDesc>
31
     </teiHeader>
32
     <text>
33
     <body>
34
     <sp>
35 <speaker>Free Narrator
     <lg n="319">
36
37 <1>Horn," quap heo, "wel longe</1>
38
     <1>Ihc habbe be luued stronge.</1>
39
     <1>Pu schalt bi trewbe pligte</1>
40
     <1>Pu schalt bi trewbe pligte</1>
41
     <1>On myn hond her riste</1>
42
     <1>Me to spuse holde,</1>
43
     <1>And ihc be lord to wolde."</1>
44 </lg>
     </sp>
45
46
     <sp>
47
     <speaker>Omniscent Narrator
42
     < lq n="325">
49
     <1>Abulf sede on hire ire,</1>
     <1>So stille so hit were</1>
50
51
     </lg>
52
     </sp>
53
     </body>
54
     </text>
55
     </TEI>
```

## Didactic unit n°8: Have rhymes a gender?! (Duration 3 hours)

After the identification of the narrator, this didactic analyses the changes of the metrical patterns in the three manuscripts. The aim of this unit is to illustrate the linguistic changes in the manuscripts through their differences and similarities in the metrical structure. Students and teachers can use the interactive whiteboard to show the rhyme structure and their changes from one manuscript to another. An hypothetical exercise could be the identification of the accents and the rhyme on the interactive whiteboard. Teachers represent three couplets from the three manuscripts, one with feminine ending and one the masculine ending. Students' task is to mark on the interactive whiteboard each couplets rhyme and accents. For instance, the exercise could be structured as follow:

```
King he was biweste
    So longe so hit laste.
    (vs. 5-6)
    Fairer ne miste non beo born,
    Ne no rein vpon birine,
    (vs. 10-11)
                                                        He was King in the west,
Laud Misc. MS. 108, fol.
                                                        So his life was long
    King he was bi westen
                                                        (vs. 5-6)
    Wel bat hise dayes lesten,
    (vs. 5-6)
                                                        The fairer child was not born ugly,
                                                        Or even the rain fell upon him
    Feyrer child ne micte ben born.
                                                        (vs. 10-11)
    Ne reyn ne micte upon reyne,
    (vs. 10-11)
    kyng he wes by weste
    be whiles hit yleste,
    (vs. 5-6)
    feyrore child ne myhte be born.
    for reyn ne myhte by ryne
    (vs. 10-11)
```

## Didactic unit n°9: Push the buzzer! (Duration 3 hour)

This didactic unit concludes the section about King Horn with a fun and interactive game. The purpose of this didactic unit is for the students to understand the linguistic changes in the texts, and the factors that might have influenced them, for instance the historical period, the social background or readers' necessities. In particular, this unit aims to improve students' critical thinking and their awareness on the evolution of the language. For this phase, teachers can use the interactive approach of a quiz game to explain the evolution of the words in the three manuscripts. On the interactive whiteboard, teachers will upload three selected segments but with some missing words. At the bottom, there will be a group of words in random order that contains correct and incorrect words that students will try to put in the gaps. Each group will have 10 seconds and one possibility at a time to find the correct words. If the word is correct, they will gain one point, otherwise zero points. The role of the teacher will be of moderator and judge between the groups, revealing if the chosen words are right or wrong. The following graph recreates the quiz game using the interactive whiteboard:

Cambr. Univ. MS. Gg. 4.

27. 2.

Panne spak on \_\_\_\_\_,

Of \_\_\_\_he was \_\_\_\_,

"Horn, þu art wel \_\_\_\_

And þat is wel isene;

Pu art \_\_\_\_and strong,
fair and euene long.

Laud Misc. MS. 108, fol.

219 b.

Uan bi \_\_\_him amyraud,

Of wordes he was swipe \_\_\_,

Horn, pou \_\_\_swipe \_\_\_,

And follyche swipe \_\_\_,

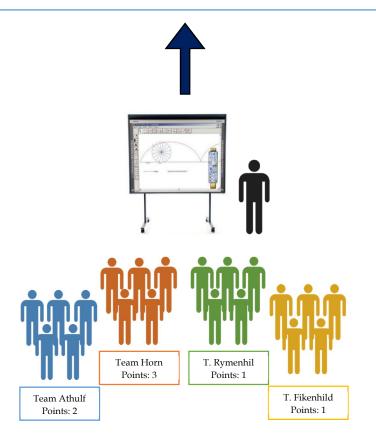
Pou art fayr and eke strong,

Pou art \_\_\_long.

po \_\_\_\_on \_\_\_,
of wordes he wes swype \_\_\_\_,
"horn, pou \_\_\_\_ swype kene,
bryht of hewe ant shene;
pou art \_\_\_\_ ant eke strong
ant eke eueneliche long.

Harl. MS. 2253.

		Missing Words										
ı	Admir	ad	spek	speak		Admyrold			spe	C.	speck	
		Admira	aud	werds		words		bald	eunelinche	t		
	baud		bold		bould		bolde		boulde		hart	
		art		kene		art		gret	fay	r		
				eueneliche			fair					
ľ												



## Didactic unit n°10: That's me, Havelock! (Duration 1 hour)

The previous didactic units have been centred on the development of students' linguistic awareness with interactive exercises. The use of T.E.I. and the interactive whiteboard stimulate students' visual learning and define the role of words<sup>41</sup> (Caprino 2004). The following didactic units will follow the same principles but to analyse the themes of *Havelock the Dane* and their evolution over time.

The following didactic unit introduces *Havelock the Dane*, focusing the attention not only on **the characters** and the **events** but also on the **principal themes**, in particular:

- 1. **The evolution of the hero** over time and the obstacles he finds during his journey;
- 2. The effects of the social and personal powers;
- 3. **The role of secondary characters** like Goldebour and Grim to define the life of the main character.

To verify the understanding of the topic, teachers can use tests with open or multiple-choice questions to verify the understanding of the various topics. These tests can be done using software like **Word Office** to avoid the traditional test on paper. For instance, some questions could be structured as follow:

- 1. What is the difference between personal and social powers?
- 2. *Grim's change of heart is due to:* 
  - The birthmark on Havelock's shoulder
  - o His wife Leve and her decision to spare his life

<sup>&</sup>lt;sup>41</sup> http://www.leonardoausili.com/approfondimenti/didattica-multimediale-e-apprendimento-visivo-con-le-lim (Accessed on January, 2018)

## Didactic unit n°11: Plunging into Voyant Tools (Duration 3 hour)

After the presentation of *Havelock the Dane*, this didactic unit introduces the software that will be used for the analysis of the thematic evolution in the manuscripts. Teachers will introduce Voyant Tools to students and in particular three apps:

- 1. **Cirrus**, for the selection of the principal words (see Chapter 3, Paragraph 3.2.1);
- 2. **Reader**, to locate the words in the text and distinguish them according to the event and the topic (see Chapter 3, Paragraph 3.2.2)
- 3. **Context**, to understand the meaning of each words (see Chapter 3, Paragraph 3.2.5).

The aim of this didactic unit is to become familiar with the software., using simple and effective exercises to understand the elements that constitute it. For instance, Voyant Tools website provides users of collection of William Shakespeare's collection of poem or Jane Austen's novels to understand how the software works. Teachers can give students some free time to examine the various apps, checking their attention and helping them in case of misunderstandings.

## *Didactic unit n°12: The evolution of the themes (Duration 5 hour)*

This didactic unit aims to present the themes of *Havelock the Dane* in a modern key. The purpose of this didactic unit is to improve students' critical thinking, analysing the evolution of the topic from the Middle Age to the present day. In other words, this thematic study of the text gives the possibility to compare two historical periods, their differences and similarities. The debate is designed following the interactive method adopted by Yakovleva (2014) and it could be structured as follow:

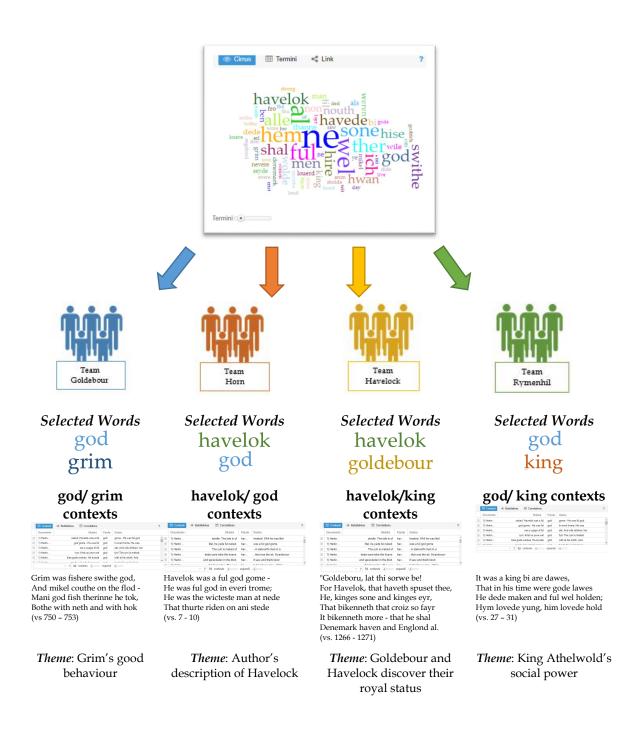
1. **First step**: *Create a list of rules that will be played during the debate*Teachers and student will write down a **list of rules** to promote students' involvement during the debate and reduce distractions. Teachers and students will write a list of rules (max. 15 minutes) that will be played during the debate, for instance penalties for the students that speak out of turn or the obligation for each student to express their opinions. Students will suggest some rules and teachers will choose the ones that can be useful for the success of the debate. It is important to highlight that these rules are not conceived to limit students' abilities but to avoid confusion and loss of time.

2. **Second step**: *Identify how many times the words that appear in text, and discuss their meanings in the lines indicated in the Context app.* 

During this phase, each group will upload the text of *Havelock the Dane* on the Voyant Tools software, find the most common words in the text represented in **Cirrus** and compare the different uses in the text with **Context**. During this phase, teachers will guide students in the selection of the significant words that are connected with the topics previously introduced and avoid the words that are irrelevant for the purpose of the topic. The exercise concentrates students' attention on some elements indicated in the software and avoids words that are irrelevant for the research, despite their constant use.

3. **Third step**: *Identify the different meanings of each role, their contexts and their correlation with the themes previously introduced.* 

The principal aim of this step is to develop students' textual selection and the different meanings of words in specific contexts. For instance, the previous word **god** can indicate one of Goldebour's characteristics or kings' quality (as seen in Chapter 2, Paragraphs 4.2 and 4.3).



4. **Fourth step**: Search one article that is related with the topic found in Havelock the Dane and write a list of topics to introduce it during the debate.

Students will search articles that discuss the same topics found with Voyant Tools. These articles will be used to compare the themes found in the previous step in different historical periods. Before starting the debate, each group will write a list of similarities between the articles chosen and <code>Havelock's</code> topics. It will be used to introduce the topics found to the teacher and the classroom, therefore it should include also the group's perspective on the topic.



*Theme*: Grim's good behaviour



Theme: Author's description of Havelock



Theme:
Goldebour and
Havelock discover
their royal status



Theme: King Athelwold's social power



New animal rescue saves lives and educates community



Learning from MLK: Activism through humility



Are men the only problem? We need a feminism that critiques both genders



Justin Trudeau to Rich People: You Need To 'Give Back'



Essay:
The importance of helping people



Essay:
Learn from society
and personal
experiences to find
redemption



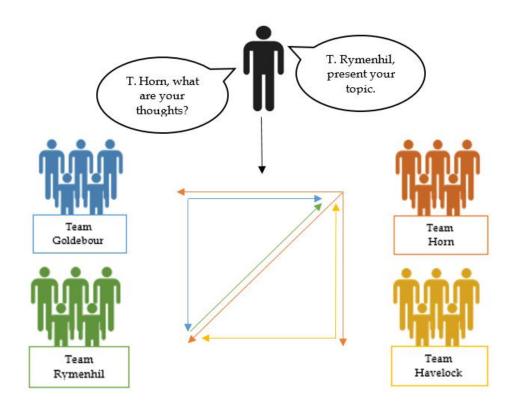
Essay:
The role of women in society



Essay: Qualities and flaws of modern leaders

### 5. **Fifth step**: *It is time to talk!*

Teachers invite students to present their topic to the other groups and discuss their choices. After the first group's introduction, teachers asks a second group to give an opinion and motivate their points of view, and so forth. The coloured arrows in the figure above represent the aim of this phase to create a motivating community, where all its members share their opinions on a topic and discuss its pros and cons. Teachers' role is to control students and guide them to deliver an opinion in the right form, without overstepping their role of moderator.



#### 3.5. Discussion

The main purpose of this learning module is to aware students of the dynamic nature of literary texts, highlighting the evolution of the structure of the manuscripts, their language and their themes over the time. At the end of the module, students will be able to recognize the different elements inside the texts and understand their connection and evolution. On one side, the exercises designed for the analysis of King Horn demonstrate the linguistic changes from different perspectives like the narrative styles or the metrical patterns. On the other side, the exercises shaped for the thematic analysis of Havelock the Dane show the connection between two visions from different historical periods.

In particular, these exercises encourage students to reflect on the language as a living organism, which is the common thread of the entire dissertation. The inclusion of philological instruments like T.E.I. and Voyant Tools promote the study of the language and the causes of its evolution. These instruments introduce students to new analytic approaches that increase their interest and concentrate the attention. For instance, the use of the interactive method to discuss the thematic changes in *Havelock the Dane* or the application of T.E.I. for King Horn improve students' reflection on the text and avoids the traditional notion-based approaches that diminishes their creativity and primarily makes room to teachers (Boghici 2011). The didactic units motivate students and make the educational experience stimulant. Each unit investigates some specific aspects that are relevant for the understanding of literary texts and their characteristics. As explained by Caprino (2004), the traditional methodology does not develop appropriately the students' visual systems, because they are more concerned on a learning by rote of the literary text<sup>42</sup>. The use of the interactive whiteboard and the application of instruments like T.E.I and Voyant Tools emphasize the usefulness of multimedia and consequently the importance of

<sup>&</sup>lt;sup>42</sup> http://www.leonardoausili.com/approfondimenti/didattica-multimediale-e-apprendimento-visivo-con-le-lim (Accessed on January, 2018)

visual learning. Specifically, the use of interactive whiteboards stimulates in students:

- 1. The ability to recognize the changes in literary texts;
- 2. **A simplified memorization** of the information;
- 3. Cultivate **cooperation between students**;
- 4. **Increase attention** to avoid misunderstanding.

In the list, an aspect that stands out and has a relevant role in the module is the development of a sense of community, to promote not only students' critical thinking but also to establish a positive relationship between the participants of the didactic experience. For instance, exercises like the debate of *Havelock's* themes and their comparison with modern events stimulate discussion in the classroom to demonstrate or deny their validity today. In addition, the use of the quiz game to analyse the evolution of words in the three manuscripts of *King Horn* stimulates students and creates an immersive and challenging environment, in which students do their best to succeed. These didactic units improve students' abilities and create a positive environment in which students can share their opinions without the fear of being tested or judged by the teacher. This means that this module centralize students' necessities, in particular improving their speaking and listening skills. Students participate actively during the educational process, promoting the inclusion and co-operation in the classroom.

## **Conclusions**

The study demonstrates the possibility to include textual criticism in literature studies and the importance of technology, using instruments like **T.E.I.** and **Voyant Tools** to transform the educational experience in a philological study. The methodology permits to analyse *King Horn* and *Havelock the Dane* in an interactive and immersive way, avoiding students' learning by rote and teachers' description of the topic behind a desk. At the end of the dissertation, the analysis demonstrates **the dynamism of literary texts** and **the helpfulness of technology in connecting philology and pedagogy**.

## 1. The Dynamism of Literary Texts

The aim of this study is to emphasize the value of literary texts, focusing not only on their themes and structures but also on their metamorphosis over time. The methodology shows the effectiveness of technology to demonstrate the evolution of a text over time, its themes and their correlation with the modern world. The introduction of technology avoids the traditional analysis of literary texts and emphasizes their dynamic nature. For instance, the use of **T.E.I** helps students to understand the meaning of every word in the text, in particular the role of the omniscient and free narrators. In addition, the interactive whiteboard facilitates the understanding of words changes and **Voyant Tools** permits the analysis of the themes and their modern interpretations.

## 2. The Effects of Technology

The study highlights the role of technology in both **philological** and **pedagogical** disciplines. On one side, the digitalization of the stemma codicum and the use of computers for the reconstruction of manuscripts pedigree do not minimise philologists' role but opens the doors to new methodologies. On the other side, the introduction of technology in the classroom provides students with new educational methods to consolidate their priorities. As defined by Raben (1966), technology encourages the improvement of human abilities and expand people's knowledge of the world. In this case, technology facilitates the introduction of the discipline in schools and the analysis of literary texts.

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## **Attachments**



# North Korea threatens 'nuclear storm' against China as ally makes pact with US

'Of great importance to both of us is North Korea's pursuit of nuclear weapons, which threatens the security and stability of the region'

Serina Sandhu 01/04/2016

URL: http://www.independent.co.uk/news/world/americas/us-and-china-agree-to-oppose-north-korea-nuclear-programme-a6962901.html



The US and China are united in wanting to prevent North Korea from carrying out further missile tests and committed to the "denuclearisation" of the region, Barack Obama has said.

Speaking following a meeting on the sidelines of the global nuclear summit, the US President said both he and his Chinese counterpart, Xi Jinping, wanted to see the "full implementation" of the United Nation's sanctions on North Korea.

But just hours after the meeting in Washington, North Korea appeared to fire a short-range missile from an eastern coastal area into the sea off the North's east coast, according to South Korea's Joint Chiefs of Staff. It is the latest in a series of weapon launches carried out by the country.

North Korea has lashed out against the UN sanctions - approved by the Security Council - aimed at withholding funds to its nuclear weapons and ballistic missile programmes.

In a letter which reportedly condemns Beijing's part in the sanctions, the Central Committee of the Workers' Party of North Korea has commanded its people to actively confront China with a "nuclear storm". The letter was obtained by the Daily NK but could not be independently verified.

And on Monday, North Korea's foreign minister Lee Su-yong said: "In response to the US frenzied hysteria for unleashing a nuclear war... we state resolutely about the readiness to deliver a pre-emptive nuclear strike."

Despite the threats, Mr Obama insisted both he and Mr Xi were "committed to the [denuclearisation] of the Korean Peninsula".

At the global nuclear summit, he said: "Of great importance to both of us is North Korea's pursuit of nuclear weapons, which threatens the security and stability of the region."

Mr Xi said: "China and the US have a responsibility to work together." China also agreed to fully implement the latest economic sanctions on North Korea.



# North Korea: ballistic missile launched over Japan – as it happened



Claire Phipps 14/09/2017

URL: https://www.theguardian.com/world/live/2017/sep/15/north-korea-launches-missile-over-japan-live-updates?page=with:block-59bb5485e4b02fb18d53c592#block-59bb5485e4b02fb18d53c592

## What happened?

North Korea has launched another missile over Japan, a day after it threatened to "sink" the country and turn the US "into ashes and darkness".

The missile – which was fired from Sunan, just north of Pyongyang, on Friday morning at 6.57am Japanese local time (21.57 GMT Thursday) –

flew over the northern Japanese island of Hokkaido before landing, 20 minutes after launch, in the Pacific Ocean, 2,200km east of Cape Erimo.

The US and South Korea said they believed it to be an intermediaterange ballistic missile, although the Japanese foreign minister Taro Kono said it could be an intercontinental ballistic missile, which has a significantly greater range and which Pyongyang claimed to have tested successfully in July.

Friday's launch was the longest-ever such flight carried out by the rogue regime, and travelled 3,700km – 800km further than the previous launch over Japan, in August.

The US Pacific territory of Guam, which Kim Jong-un has threatened to attack, is 3,400km from North Korea. But the US military said the direction of the missile meant the island was not at risk.

Experts said it was likely to be another Hwasong-12 missile, as used in the August test.

People living in regions near the missile flight path in Hokkaido received two text alerts on Friday morning, the first warning them to seek shelter, and the second giving an all-clear.

#### The reaction

The United Nations security council will hold an emergency meeting on Friday; just days ago it approved tougher sanctions against the regime.

The Japanese prime minister, Shinzo Abe, slammed the launch as "utterly unacceptable":

If North Korea continues to walk this road, there will be no bright future. We need to get North Korea to understand that.

South Korea fired two ballistic missiles in a show of strength against the North. One of the Hyunmoo-2 missiles "accurately hit" a target 250km away in the Sea of Japan, simulating the distance between its launchpad and Sunan. But the second missile fell into the water "in the initial stage".

There has been no official response from the White House or from Donald Trump, although officials said the US president had been briefed.

The US secretary of state, Rex Tillerson, said China and Russia must take "direct actions" to contain and deter Kim.

Australian prime minister Malcolm Turnbull called the launch "another dangerous, reckless, criminal act by the North Korean regime", labelling it a sign of Kim's frustration at being hit with further sanctions. Foreign minister Julie Bishop said North Korea was gaining greater capability with each test.

And Air Force General John E Hyten, commander of US nuclear forces, said his assumption is that North Korea's most recent nuclear test, on 3 September, was a hydrogen bomb.



# North Korea fires new missile over Japan



The Australian 15/09/2017

URL: http://www.theaustralian.com.au/news/world/north-korea-fires-missile-toward-sea-of-japan/news-story/3e5b762a2ad7345eff3fe9b4217fa62f

North Korea has launched a ballistic missile over Japan for the second time in less than a month, with Tokyo strongly protesting what it called Pyongyang's latest intolerable provocation.

The missile was launched at 6:57am Japan time (7.57am AEST) this morning and flew over the northern Japanese island of Hokkaido before falling into the Pacific Ocean 2000km east of Cape Erimo, at 7:06am (8.06am AEST), Chief Cabinet Secretary Yoshihide Suga said.

Japan could "never tolerate this repeated extreme provocative action," Mr Suga told reporters. "We have strongly protested to the North, telling them of the strong anger of the Japanese people."

South Korea's military said the missile likely reached an altitude of 770km, and flew 3,700km - far enough to reach the US Pacific territory of Guam. The US Pacific Command said an initial assessment showed it was an intermediate range ballistic missile.

Japan issued an emergency alert at 7.06am but later reported there had been no injuries or damage on the ground.

Japan Prime Minister Shinzo Abe warned Pyongyang "there will be no bright future if it continues to follow the path like this," as the UN Security Council said it would convene an emergency meeting today.

The launch, from near Pyongyang's Sunan International Airport, comes after the UNSC imposed an eighth set of sanctions on the country over its banned missile and nuclear programs.

The missile was first reported this morning by South Korea's Joint Chief of Staff who said Pyongyang had fired a missile eastwards toward the Sea of Japan.

"North Korea fired an unidentified missile eastwards from the vicinity of Pyongyang this morning," the JCS said, adding that South Korea and the US are analysing additional information.

Malcolm Turnbull said North Korea's latest ballistic launch shows the economic sanctions against the rogue regime are working.

Mr Turnbull said this morning North Korea was frustrated with the latest round of sanctions which encouraged it to lash out with a second missile launch over Japan in less than a month.

"This is a sign, I believe of their frustration at the increased sanctions on North Korea recently imposed by the (UN) Security Council, it is a sign that the sanctions are working and what we need to do is maintain the united global pressure on this rogue regime to bring it to its senses," Mr Turnbull told Sky News.

"I am pleased that the UN Security Council voted for these additional sanctions including restrictions on oil imports into North Korea and again prohibitions on exports from a number of categories, including coal and of coarse iron ore and now textiles.

"Tightening the sanctions on North Korea is the best prospect to bring the regime to its senses."

He said the government condemned the missile launch, which has been confirmed by South Korea and Japan.

"This is another dangerous, reckless criminal act by the North Korean regime, threatening the stability from the region and the world and we condemn it, utterly," he said.

As Tokyo warned residents to shelter from missile debris, the launch also led to a suspension of play at the Sapporo golf club on Hokkaido. Australia golfer Matt Griffin tweeted; "Well this is a first. We currently have a suspension in Sapporo Japan due to North Korea lauching ballistic missiles".

The North last month used Sunan airport to fire a Hwasong-12 intermediate range missile that flew over northern Japan in what it declared as a "meaningful prelude" to containing the US Pacific island territory of Guam and the start of more ballistic missile launches

targeting the Pacific Ocean. That missile was also launched over Japan, flying over Hokkaido and landing in the sea around 1180 km east of Cape Erimo.