

Learning the Renaissance cosmos: The circulation of Sacrobosco's *De sphaera mundi* in sixteenth-century Italy*

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ABSTRACT

This article investigates the late Renaissance dissemination of Joannes de Sacrobosco's *Tractatus de sphaera mundi* in the Italian book market. The *Tractatus* was a widely circulated textbook of geocentric astronomy that served as the foundation of astronomical knowledge and applied mathematics from the thirteenth to the mid-seventeenth centuries. Its influence remained strong throughout the establishment of Copernicanism, and gradually faded as Newtonianism provided the permanent paradigm for the Enlightenment science soon to come. Using quantitative methods, digital tools, and social network analysis, this article traces a social geography of the *Sphaera*'s owners and aims to profile the a cultural morphology of the private collections of graduate and post-graduate individuals at the end of the sixteenth century.

KEYWORDS

Sacrobosco; Cosmology; Book trade; Book market; Church history.

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Introduction

The Renaissance was an exciting time for astronomy, a time characterized by an experimental attitude and a daring drive. Scholarship of the time had recently been shaken by Copernican heliocentrism and various fields of study, especially philosophy and theology, were attempting to adjust to the ongoing paradigm shift. So much innovative attitude from Renaissance scholarship tends to overshadow how scholars of the time, Copernicus himself, were born and raised in a geocentric cosmos and that a finite space of concentric spheres revolving around the Earth was what they studied in school. Most of these studies were done by reading the *Tractatus de sphaera mundi*, an introductory manual on the use of the armillary sphere, which was necessary to locate the stars, browse the cosmos, and navigate the Earth. Throughout the Renaissance, the *Tractatus* became a school textbook instrumental in acquiring the rudiments of applied mathematics and geometry and constituted the minimum requirement to pursue the quadrivium study program. The book originated in late medieval France and was written by the English Augustinian monk and mathematician John of Holywood (<fl. 1230), Latinized as Johannes de Sacrobosco, a professor of mathematics at the University of Paris. The *Tractatus* soon gained momentum, earning popularity in the manuscript era, maintaining its leadership throughout the incunabula era, and flourishing in the Cinquecento, just as the geocentric paradigm came under attack. Its publishing trajectory began to decline in the Baroque era, to disappear from the scientific horizon by the mid-Seicento, when heliocentrism became dominant in the general scope of the Republic of Letters and geocentrism began to lose its grip also on the curricula of European universities.

As a quasi-standard requirement of entry-level university students, the *Sphaera mundi* transitioned from being a single-authored text to, especially in the Cinquecento, being part of a literary tradition and a corpus of texts, an intellectual arena in which many scholars engaged to contribute with editorial nuances, novel commentaries, numerical tables, expanded visual aids (including bidimensional volvelles and tridimensional build-it-yourself diagrams), *proemia*, dedications, sonnets, analytical indexes and so on.¹

Most of these new and old addenda were shuffled around in Latin or vernacular renditions to propose new editorial formulas to the reading audience with the objective of winning the fierce competition of the first and secondhand markets across the continent and beyond (Valleriani and Ottone 2022; Ulla Lorenzo 2022).

1. Sources

Much of the information about the literary success of the *Sphaera* is usually derived from the publishing history that Sacrobosco's work underwent in its many revisions, editions, and reprints mainly during the printing era. The present paper, instead, aims to provide an overview of the distribution of the editions, based on the point of view of the recipients, collectors, and, presumably, consumers of the text, hence providing a bottom-up view of how Sacrobosco's textbook earned and maintained a solid tradition in academic syllabi and a respectable sales record during the long Renaissance and beyond.

¹ On the volvelle in the *Sphaera* corpus, see Citron (2025).

Limited to the Italian peninsula alone, admittedly a relevant portion of both the European book market and of the Republic of Letters, such a survey is possible for the late Cinquecento, with a retrospective view mainly of the second half of the century. The sources allowing such study are mainly, though not exclusively, limited to the clergy. The available information comes from the complex dynamics of the implementation of the third Roman Index of Forbidden Books in the Italian dioceses. The Index, promulgated by Clement VIII in 1596, generated a number of jurisdictional conflicts, some of which concerned the regular clergy, with special regard to the § 1 of the paragraph *De prohibitione librorum*, which mandated bishops and inquisitors to apply the Index territorially, allowing them to pursue visits to relevant book collections, which included monasteries and convents within their dioceses. The jurisdictional conflict was particularly aggravated in the dioceses of the Viceroyalty of Naples, where some monasteries and convents maintained feudal control over several surrounding settlements. These were the first to request a dispensation from the Congregation of the Index in order to avoid pastoral visits by nearby bishops in such *nullius diocesis*, which could have set a dangerous precedent for future jurisdictional incursions into the territorial possessions of the regular orders.²

The situation escalated when the Congregation, eager to facilitate the local enforcement of the newly published Index, promptly granted the requested dispensations. This internal dispute among the regular clergy led almost all the orders present in the Italian peninsula to request a similar dispensation, not only for their secular properties, but also for their entire network of religious houses and dependent parish churches present in their subalpine religious provinces, thus requesting that the new Index be applied by the orders independently of the diocesan authorities. This was motivated not only by the concern for their jurisdictional prerogatives but also by the fear that the arbitrary censorship of bishops and inquisitors could have damaged their individual and collective patrimony of books. The Congregation of the Index, in order to avoid harmful conflicts between monasteries and diocesan authorities, with unpredictably long and asymmetrical delays in the pursuit of the new censorship campaign, agreed to grant the heads of each religious order the authority to carry out the implementation of the Clementine Index independently.

The only condition imposed by the Congregation of the Index was that the central authorities of each of the religious orders involved were required to send a copy of the resulting documentation to Rome. The Congregation's initial request was for a partial list of book holdings, identifying only those books that violated the rules of the new censorship catalog (this request was in keeping with the mandate of the new Index). The purpose of this was not only for the Dicastery to monitor the actual progress of the systematic removal of prohibited material from the libraries; and second, to obtain information that the Cardinal of the Index would later use to guide the gradual correction of the offending texts. All this was done in view of the imminent massive project of an expurgatory index that the Congregation had initiated in those years.

However, it soon became clear to the Congregation that the local authorities appointed by the regular orders (mainly the priors of the monasteries and convents involved in the survey) were unable to reliably apply the rules of the new Index while inspecting the individual and communal book

² *Nullius diocesis*, by definition, were territorial spaces carved out of the regular jurisdiction of bishops and assigned to priors endowed with bishop-like prerogatives on secular vassals. The whole set of events here accounted is detailed in Fragnito (2006).

collections. In a change of strategy, the Congregation instructed the individual monasteries to send to Rome groupings of book lists containing a complete inventory of the holdings of monks, friars, and eventually, secular individuals under the jurisdiction of the regular orders. The Vatican functionaries would then have taken care of compiling the comprehensive lists and indicating which were the offending copies that had to be temporarily confiscated by the internal authorities of the religious orders, pending textual expurgation (*donec expurgantur*). Since the Congregation of the Index postponed this internal survey in view of the forthcoming expurgatory index, the functionaries were interested not in the titles of the collections but in the editions themselves; thus, the complete lists of the individual and communal collections of monks, friars, vassals, and religious institutions had to indicate not only the owner and the location of each collection, but also the authors, title, provenance, publisher, year of publication, and format of each edition included.

During the three years that it took the Congregation of the Index to collect the supposedly complete documentation from the dioceses of the subalpine region, the religious orders responded fairly consistently to the Dicastery's requests. Objective limitations were represented by the different levels of literacy that characterized each group of religious in a vast and diverse territory such as the Italian peninsula. A lower level of literacy sometimes affected the quality of the lists drawn up locally. Another element of dispersion of information is the documented loss of part of the archival material of the Roman Congregation when part of its archive was transferred from Rome to Paris during the Napoleonic era.³ Nevertheless, the documentation preserved today in the *Codices Vaticani latini* 11266-11326 represents the most valuable source of information on the book holdings of the Italian regular clergy (with the sporadic addition of nuns, secular clergy, and secular individuals) for the late Renaissance.

This valuable corpus of sources has been the subject of a praiseworthy digitization effort since the early 2000s, as part of the RICCI research project (Ricerca sull'Indagine della Congregazione dell'Indice).⁴ The resulting open-access bibliographic database will be used to survey the distribution of Sacrobosco's *Sphaera mundi* on the Italian peninsula and to profile the cultural and social status of its collectors, along with their detectable common patterns of book acquisition.

2. Methodology

The process of data harvesting in the RICCI database was carried out to gather individual book collections that contained one or more editions of the *Sphaera*. In order to trace the distribution of copies of the book circulating in the peninsula at the end of the sixteenth century, the selection was limited to those editions that were classified as identified in the RICCI database (i.e.,

³ For a detailed account of the dispersion of the archive of the Sant'Uffizio and the Congregation of the Index, see Tedeschi (2003, 35-46).

⁴ RICCI: <https://ricci.vatlib.it/>. Henceforth, single entries derived from this database will be indicated either with ELE (followed by a number, refers to a single collection entered in the repository) or BIB (followed by a number refers to a single edition entered in the database). This documentation features an extensive bibliography tentatively summarized here: (Adoriso 1987; Ciccarelli 1990; 1991; Criscuolo 1986; Dahnk Baroffio 1986; 1990; 1992; 1993; 1994; 1995; 1996; Gargan 1975; Masetti Zannini 1970; Pagano 1986; Sbordone 2001; 2002; 2003; Barzazzi 1995; 2001; Compare 2000; 2002; 2003a; 2003b; Granata 2006; 2016a; 2016b; 2024; Laudadio 2005; Lebreton and Fiorani 1985; Rozzo 1998a; 1998b; Rusconi 2004a; 2004b; Rusconi and Borraccini 2006; Zanol 2003; Zardin 1992; 1999).

bibliographic records included in the *Codices Vaticani latini 11266-11326* that have a matching edition in common bibliographic resources: e.g., EDIT16, SBN, or similar catalogs). Including unidentified editions would have introduced into the sample a number of records with inaccurate or incomplete information about the place of print, publisher, and year of publication of the editions under consideration. The choice was primarily motivated by the fact, as mentioned above, that the *Sphaera* had a rather dynamic publishing history, and each edition has its own editorial tradition that is worth tracing with precision (Valleriani et al. 2022).

By selecting those individual lists found in the *Codices Vaticani latini 11266-11326* that account for at least one identified copy of the *Sphaera* in their holdings, a total of 149 editions from 1490 to 1594 were gathered.

In order to find common patterns in the book acquisitions of the collectors of the *Sphaera*, the decision was made to gather all the book lists found in the RICI database that contained one or more editions of Sacrobosco's work. However, a further selection criterion was applied to exclude all lists of common and institutional collections (e.g., conventual or monastic libraries). As Section 5 will show, a chief purpose of this paper is to lay out the intellectual morphology of the book collections gathered in the sample, along with the social and professional standing of their declared owners. Hence, the preference for clearly defined individual collections was deemed key to gathering a cohesive and coherent sample. In fact, collective collections were by definition gathered to respond to multiple uses of a given community of users rather than responding to the defined intention of individuals with a defined intellectual agenda in mind. Furthermore, the cultural interests of the purchasers were meant to be placed in the territorial context in which the collector operated (e.g., the distance from a major urban center or a relevant printing center). Institutional collections may have falsified this view in light of the fact that the capability of a convent or monastery to cater to their needs in terms of books acquisition was largely different from that of an individual member of the clergy, whether he or she was operating in a rich urban context or a resourceless peripheral village. A religious house could rely on a considerably greater wealth and a network of contacts and distribution channels of material commodities than a single individual. This would have not only spoiled the data projection found in Section 5, but it would have also affected the purpose of outlining the capacity of the single editions to navigate the Italian market from their place of origin (whether they were Italian cities or ultramontane centers) to the various locations in the peninsula.

The qualitative analysis of the book holdings of the collectors of the *Sphaera* will take into account the well-known *caveat* that ownership does not equate to readership, but it will do so with some moderation. First, it will consider the particular relationship that Renaissance book collectors had with their books, especially those outside the ranks of the nobility. Far from being an object of status or a tool to be used by others, the private collections of clerics and secular professionals (lawyers, physicians, and notaries) of the late sixteenth century were primarily intended to be repositories of operational knowledge. Previous studies of these collections have shown how closely Baroque book collections reflected the professional training and everyday practice of their owners (Ago 2002). With this in mind, the presence of a given book in a private collection will be regarded as a meaningful effort to serve an intellectual or operative purpose. Hence, this paper will not conceptually or semantically cross the threshold between ownership and readership. Rather, an intersectional space will be explored. This will also be done because

owning a given book was a cultural statement, especially in the pre-bourgeois and pre-industrial age of printing. Moreover, in post-Tridentine Catholic dioceses, under the dictated agenda of cultural reform encouraged by the Council, owning the seminal tools of pastoral practice and the rudiments of knowledge was considered a duty for those willing to respond actively to the remarks often repeated by Protestant propaganda regarding the crass ignorance of the Catholic clergy. Moreover, exponents of the high professions of the late Renaissance were engaged in a refined literary context where prescribed reading lists for active professionals, e.g., *De modo studendi in iure* or *De modo studendi seu legendi in medicina*, made the stacking up of a respectable book collection a common professional statement. The very existence of such a debate during this fervent period of intellectual engagement allows the building of an ideal bridge between, at the very least, the material possession of a book and the display of an individual cultural agenda. This liminal space is believed to be capable of revealing the intellectual orientations of individuals who, by owning a copy of an entry-level university book, demonstrated an interest in the academic curriculum of their time. The assumption that the ownership of the *Sphaera* isolates a middle- to high-ranking stratum of the reading elite of the clergy can at times be supported not only by the quantitative and qualitative structure of their book collections. In fact, in the sources at hand, i.e., the individual lists submitted to the Congregation of the Index between 1599 and 1601, the social and professional status or the ownership of an academic degree is occasionally declared by the owner at the incipit of the lists.

By applying the above-mentioned filters to the selection of book owners found in the *Codices Vaticani latini* 11266-11326, a total of 159 individual collections have been isolated. The size of each collection varies, but the total number of bibliographic entries gathered amounts to 16,550 records. This number of records, however, includes several internal and often recurring elements (e.g., author, title, place of printing, and publisher). The total number of unique records managed for this project is 63,474.

Such a large amount of data requires quantitative analysis. Moreover, the quality of the available data, which includes objects (books), persons (be they owners, authors, or publishers), places (whether printing centers or the actual locations where the collections were found), and collective institutions and communities of people (convents, monasteries, parish churches, or rural settlements, i.e., *nullius diocesis*), suggests that a profitable path should be that provided by social network analysis.

To follow this path, the data derived from the *Codices Vaticani latini* 11266-11326 via the RICI database were processed through a digital platform that could best manage this amount of data. The choice fell on Nodegoat, a digital tool developed by the Dutch company LAB1100.⁵ A diagram of the database created in Nodegoat to process the data is visible in Fig. 1.

⁵ The Nodegoat platform allows users to create their own database model to customize the potentials of the platform and adapt them to the research purpose of users. The model was developed by Andrea Ottone and implemented by both authors of this paper. Both authors take the opportunity to show their gratitude to Giacomo Stroiazzo for his technical aid management of the dataset and to Alberto Campillo Pardo for his advice for the enhancement of the visual aids proposed in this paper.

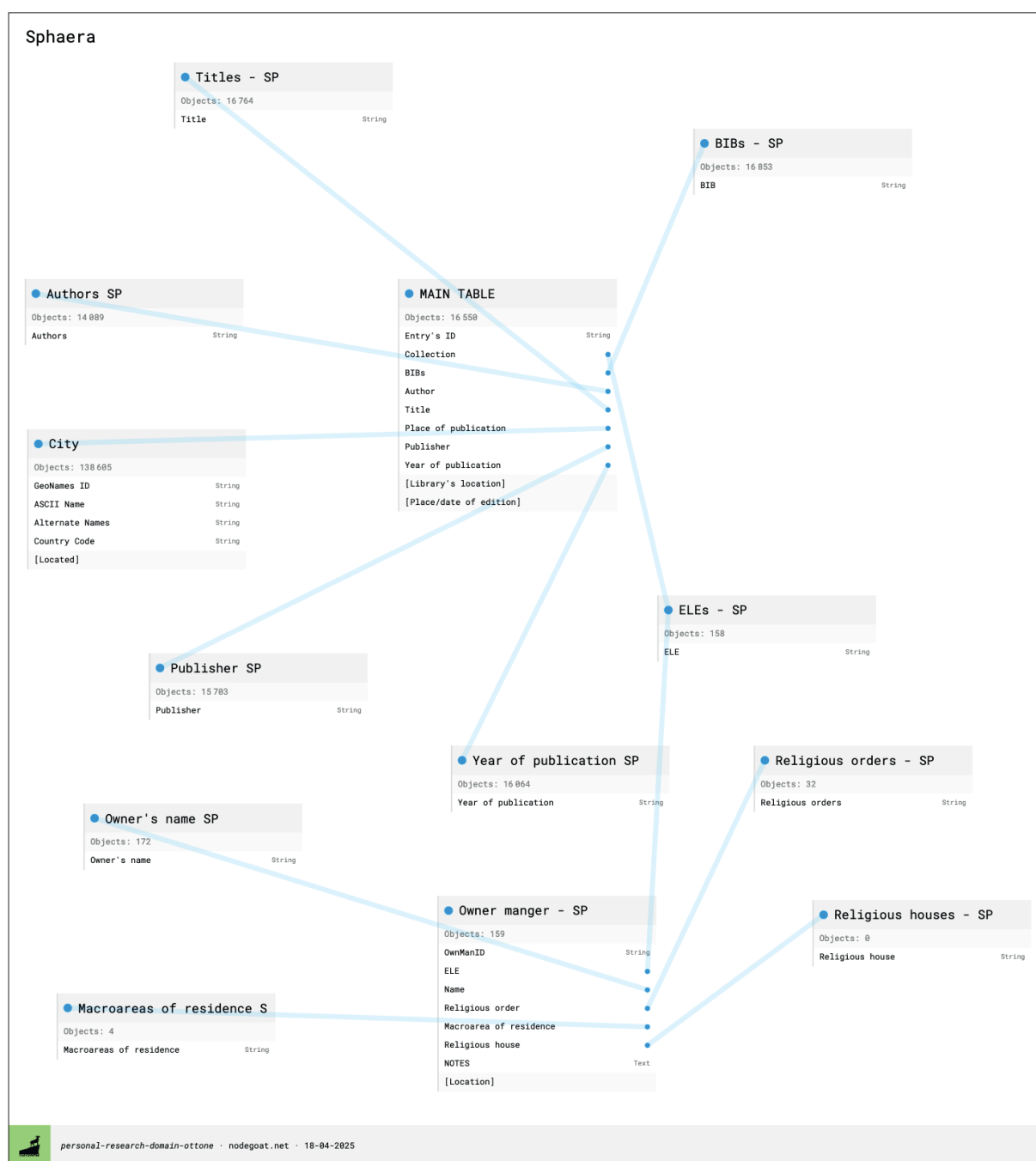


Figure 1. Logical schema of the relational database assembled for the study of the distribution of *Tractatus de sphaera* in the Italian peninsula in the late sixteenth century.

The 63,474 unique elements thus became as many nodes in a relational network with a total of 112,839 links (see Fig. 2).

Section 1 will discuss the geographic distribution of the editions of the *Sphaera* found in the corpus *Codices Vaticani latini 11266-11326* that are currently available in the RIC database. Each edition (RIC element: BIB) will be distributed on the map by the settlement, town, or city accounted in the source of origin. Moreover, it will take into account the origin of each edition of the *Sphaera*

found in the dataset (i.e., the place of publication). Section 2 will describe the cultural morphology of the book collections where the *Sphaera* has been found. For this purpose, the global network represented in Fig. 2 has been filtered to isolate only the collectors who clearly declared an academic standing or for whom an academic standing could be implied from external evidence. The data have been further filtered to isolate the authors of the books enlisted in the book collections selected. The authors have been used as an indicator of a cultural and intellectual orientation of the single book collections.

Ultimately, the present paper uses network analysis to highlight redundancies of bibliographic data to single out common patterns in the circulation of the *Sphaera mundi* in both its production and consumption modes.⁶

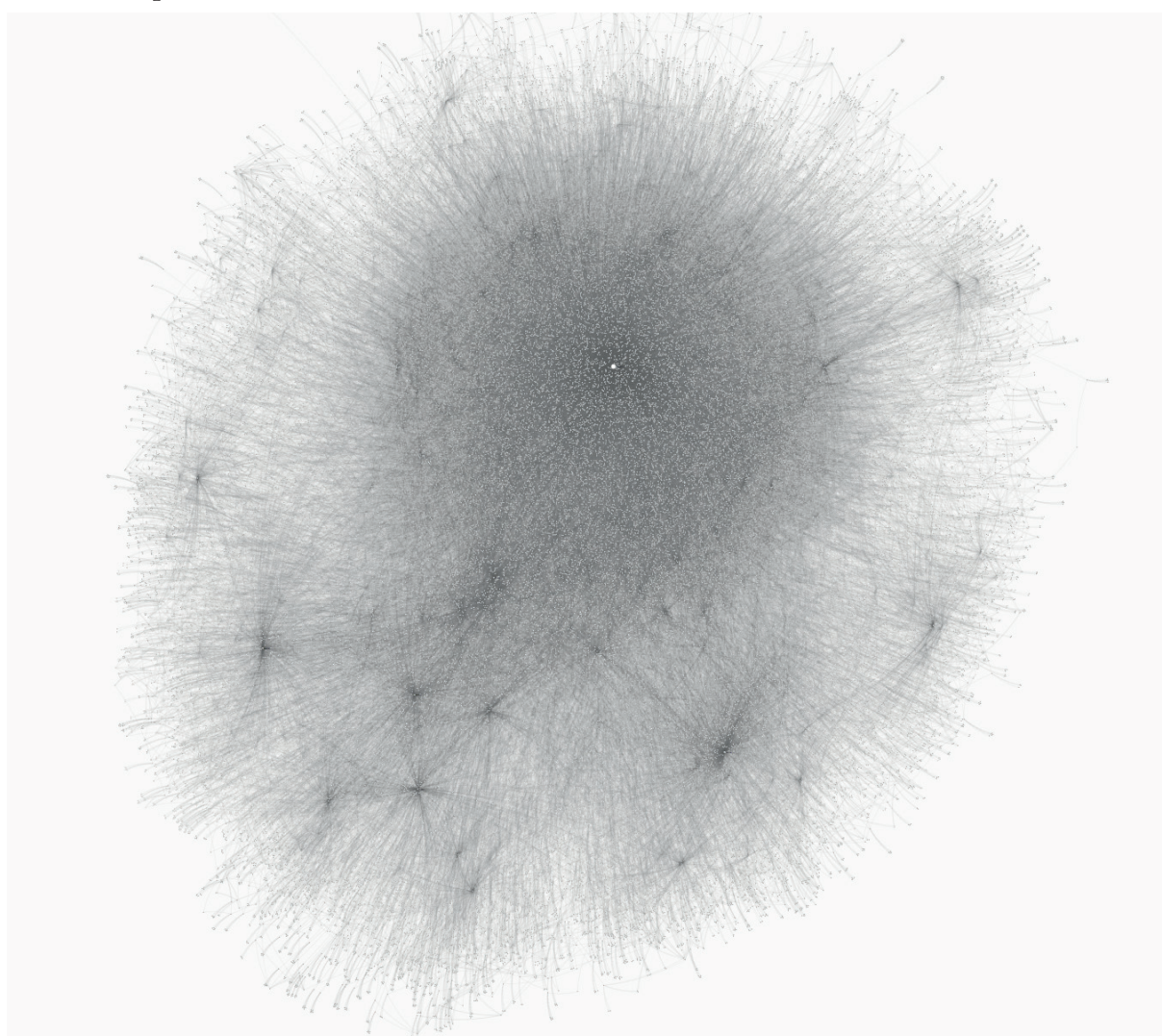


Figure 2. Global network generated by the book collections of the owners of Sacrobosco's *Sphaera* selected from the *Codices Vaticanus latini 11266-11326* via the RICCI database.

⁶ For a concise literature on the theory and methodology of social network analysis, see Ahnert et al. (2020); Brughmans (2016); Kerschbaumer (2020); Wetherell (1998).

3. The social geography of the *Sphaera*

The first observation to be drawn from the available data concerns the overall territorial distribution of copies of Joannes de Sacrobosco's *Tractatus de Sphaera*. As Fig. 3 shows, the ownership of one or more copies of this astronomical treatise was mainly, with a few exceptions, an urban phenomenon in late Renaissance Italy. Moreover, it was primarily a northern and central Italian phenomenon. This is where the density of known copies is greatest, and this is also where the *Tractatus* could be found in smaller settlements and rural areas. Several driving forces seem to be at play: the greater density of large urban centers, location of some relevant *studia* (e.g., Padua, Pavia, and Bologna) and the proximity to what is clearly the major engine for of the dissemination of the *Sphaera* in print in the subalpine market: Venice (see Fig. 4). Thus, it may be inferred that the *Sphaera mundi* followed secular market trajectories, even when viewed from the distinctive perspective of the Italian regular clergy. If the network of the regular orders could at times function as an internal distribution network for the members of individual religious orders, this does not appear to be the case for the *Sphaera*.⁷ Rather, it seems that the members of religious orders, primarily those more deeply integrated into secular society and engaged in pastoral duties and teaching, would find their way to serve their own interests in their book acquisitions, including the *Sphaera*.

The *Tractatus* had a large presence in northern Italy (mainly modern Lombardy and Veneto, with some surprising absences in modern Turin and Genoa) but rare instances in Tuscany; some copies can be found in Rome (many fewer than one would expect in such a relevant city for Renaissance culture), and its presence is episodic in southern Italy, then ruled by the Viceroyalty of Naples. The only exceptions are the cities of Naples and nearby Salerno and its surrounding area. This asymmetric distribution of *Sphaera* confirms how the work was driven by the two main forces of a consistent book market and the presence of a local university.

This pattern is strangely broken in the region of present-day Calabria and Sicily, where copies of the *Tractatus* can be found in rather small settlements. With regard to Sicily, and Messina in particular, the circulation of the *Sphaera* can be explained according to a logic that may be foreign to modern trajectories of the circulation of learned material but was more common in the early modern period: that is, the presence of a schoolmaster like Francesco Maurolico (1494-1575) on the island. Maurolico was not only an established mathematician of the Renaissance, in contact with intellectuals like the Jesuit Christophoro Clavio; he was also one of the many commentators on the *Sphaera*. His presence and relatively recent activity in Sicily were enough to generate interest in the *Tractatus* due to his intellectual legacy in the land, for instance, mingled with a hint of local cultural pride.

Overall, instead, the highlands of Abruzzo and most of the southern Adriatic peninsula do not seem to have been favorable places for Sacrobosco's work, thus confirming how the interest towards the *Tractatus* was linked more to the activities of busy commercial centers and well-established courts where bureaucrats needed to acquaint themselves with the culture of the quadrivium and beyond.

The map proposed in Fig. 3 must, however, be taken with a reasonable grain of salt, as it is far from exhaustive: the available data do not allow us to argue that there could not have been found a

⁷ Dynamics of internal transnational distributions can be spotted within the Carthusian order (Ottone 2013, 238).

copy of the *Tractatus* in the empty areas; similarly, in the areas where a few instances of its presence can be found, there were probably many more. The data available are mainly representative of the Italian clergy and are themselves unlikely to be exhaustive of this social sample alone (it is known, for example, that Dominicans and Jesuits did not participate in the assembling of the precious book lists that comprise the bulk of evidence employed here). With regard to seculars, who were also likely active collectors of the *Sphaera*, it must be pointed out that exactly those areas where the *Tractatus* seems to be most absent are also the areas where the sources in use account for most of the lists of secular individuals living in *nullius diocesis*. Regardless of its probable limits, this map is useful for showing a tendency.

Ultimately, if the presence of one or more copies of the *Sphaera* in an individual library can be taken as an indication of the owner's interest in academic writings (as this paper argues), then a very asymmetrical picture emerges between North and South regarding the Italian clergy's interest in quadrivium education.

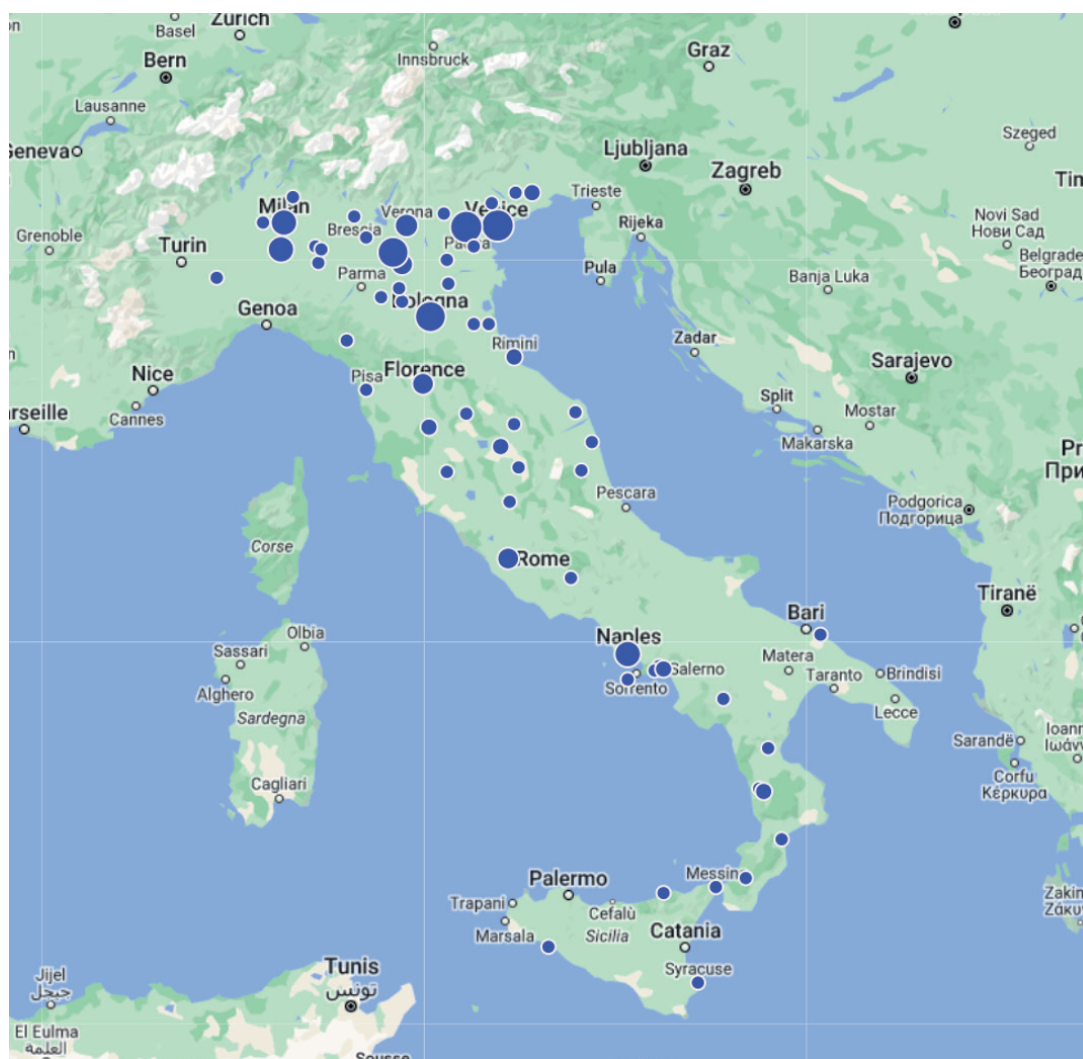


Figure 3. Territorial distribution of the single copies of the *Sphaera mundi* in 1599–1601. Each dot on the map accounts for the presence of at least one edition of the *Sphaera*. The dimensional gradient of the dots varies when multiple editions are present in the same location. Locations are meant as cities or settlements (not as single convent or monastery).

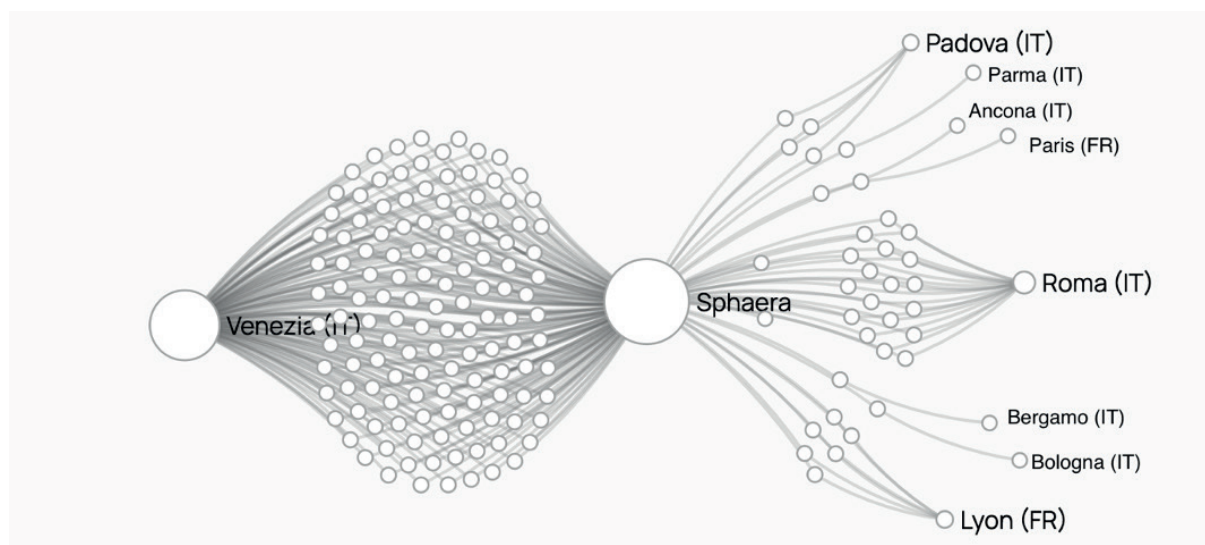


Figure 4. Provenance of the *Sphaera* copies detected in the sample. Editions of the *Sphaera* present in the global sample are grouped by their corresponding city of publication. The unlabeled connecting dots between the element “*Sphaera*” at the center and the city of print correspond to the single editions listed in the corpus *Codices vaticani latini* 11266-11326.

4. The cultural morphology of the collections

The assertion that the ownership of the *Sphaera* can be used to identify book collections that lean towards scholarly literature remains to be tested, and this section will be devoted to that task. In addition, this section will examine the cultural morphology of the collectors as revealed by their holdings and will try to find any common patterns. In particular, the research question here will be: What were the book acquisitions of individual Italian clergymen at the time? Did it make a difference if the declared status of the owner was postgraduate or pre-graduate? Moreover, was there any difference in the book diet of the few seculars selected in the sample?

In order to answer this question, thirteen collections were compared; the selection was made based on the social ranking of the owner stated in the *incipit* or *explicitly* in the list submitted to the Congregation of the Index, except for Arcangelo Giani, whose academic achievements are otherwise known.⁸ The resulting sample is the following:

ELE442	“Valeriano, baccelliere”
ELE5575	“Ioannes Baptista Vissani, maestro”
ELE6288	“Arcangelo Giani”
ELE3973	“Tomasso Felice da Ascoli, maestro”
ELE3133	“Amedeo “de Obizis,” magister”
ELE2798	“Hippolitus Mantuanus, lettore”
ELE2428	“Franciscus ab Atteste, lettore”
ELE1719	“Leonardus de Veritate, predatore e lettore”
ELE1893	“Franciscus a Vicentia, prelettore teologo”

⁸ For a biography of Arcangelo Giani, see Busolini (2000). On his book collection see Bruni (2013).

ELE2321	“Io. Bonifatio Sperello da Moro de Valli, maestro e priore”
ELE1850	“Girolamo da Teramo, baccelliere”
ELE1519	“Gio. Andrea Prigisano, medico”

This group is composed of a number of trained professionals (lecturers, masters, theologians and one medical doctor) and two trainees (*baccellieri*: students with a first degree). In Fig. 5, individual collections (ELE) are cross-referenced with the authors of the books listed in the collection: authors are used here as an identifier of the scholarly orientation of the collections and as a general indicator of the literary genre of the books listed. The diagram shows collections of different sizes; not surprisingly, the larger collections show great independence in terms of book acquisitions: in this respect, the unconnected nodes serve as a disclaimer of independence within this integrated system. On the contrary, intersectional areas are an indicator of common cultural patterns. The nodes with higher intersectionality have been placed at the center of the network, and the corresponding authors' names were made visible.

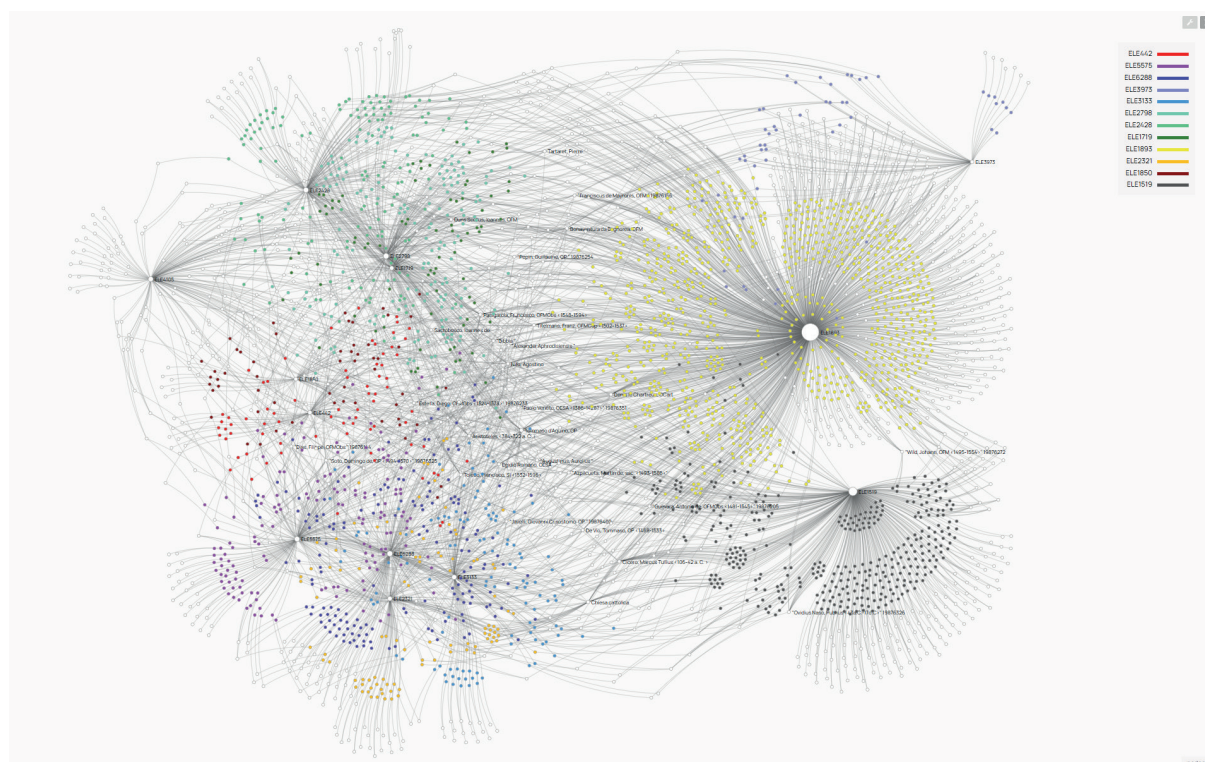


Figure 5. Comparison of twelve collections of university graduates or students. The corresponding owners in the RIC database are: ELE442, ELE5575, ELE6288, ELE3973, ELE3133, ELE2798, ELE2428, ELE1719, ELE1893, ELE2321, ELE1850, ELE1519. Along with the owner, the network comprises the following elements: “Main table” (i.e., its ID code) and the element “Author” derived from the single editions (RIC element: BIB) enlisted in the individual libraries (RIC element: ELE)

St. Bonaventure da Bagnorea (OFM), Denis le Chartreux (OCart), Francesco Panigarola (OFMObs), Franz Titelmans (OFMCap), and Francisco Toledo (SI) are all authors who refer to the pastoral duties of the book collectors. These book collectors are almost exclusively clerics with a high standing in their communities. Likewise, a group of liturgical texts (here indicated under the collective authority file “Catholic Church”) is an indicator of an active pastoral practice of the group of book collectors under scrutiny. Aristotle, Ioannes Duns Scotus (OFM), Egidio Romano (OESA), Agostino Nifo, and St. Thomas Aquinas (OP) provide the intellectual basis for the pastoral activity of the book collectors under examination, but they are also a reminder of the university curriculum of the past, or for the two bachelor graduates, they represent the present. The *Sphaera mundi*, a manual of astrology, sits at a distance from most of these authors, but it still shares the shelves with the elite of Christian theology and Western philosophy. The *Sphaera*’s closest companion is, paradoxically, Marcus Tullius Cicero, a guide to Latin eloquence for many educated professionals, including clerics, but also material for entry-level courses of eloquence, much like Sacrobosco’s *Tractatus* was a textbook for entry-level classes of applied mathematics. Like Cicero’s elegant prose, the medieval textbook of geocentric astrology remains an object to hold on to after a university degree was earned. It must have been perceived by its owners as a valuable collectable to display some erudition or a valuable tool to go back to in order to rehearse valuable knowledge such as applied mathematics and chronology.

When trying to find a common cultural model within a group of book collectors, it is dangerously easy to get lost in large libraries. It is in small book collections that some answers may emerge more easily. ELE 3973 (see Fig. 6), the collection of Tomasso Felice da Ascoli, MA graduate, counts a total of 54 editions, many of them by authors shared with other colleagues in this selected network. These common authors, one should assume, represent the basic educational foundation of a clergyman of some intellectual standing. Here are the authors that most relate him to his peers in the network: Nicolas Denisse (OFMObs),⁹ Franciscus de Mayronis (OFM),¹⁰ Bartolomeo Fumo (OP),¹¹ Guillaume Pepin (OP),¹² Bartolomeo Sibilla (OP),¹³ Pierre Tartaret,¹⁴ Agostino Trionfo (OESA),¹⁵ Juan Viguier (OP).¹⁶ These scholars were all authors of the theology books suitable for pastoral practices and that had little in common with Sacrobosco’s *De Sphaera*.

⁹ *In quatuor libros Sententiarum opus resolutio theologorum inscriptum* (BIB 126).

¹⁰ *Santuario* (BIB 30130).

¹¹ *Summa aurea Armilla nuncupata* (BIB 3624).

¹² *Opus admosum insigne de adventu domini* (BIB 31302).

¹³ *Speculum peregrinarum quaestionum* (BIB 478).

¹⁴ *Expositio in Summulas Petri Hispani* (BIB 2675).

¹⁵ *Summa de ecclesiastica potestate* (BIB 16110).

¹⁶ *Institutiones ad Christianam theologiam* (BIB 412).

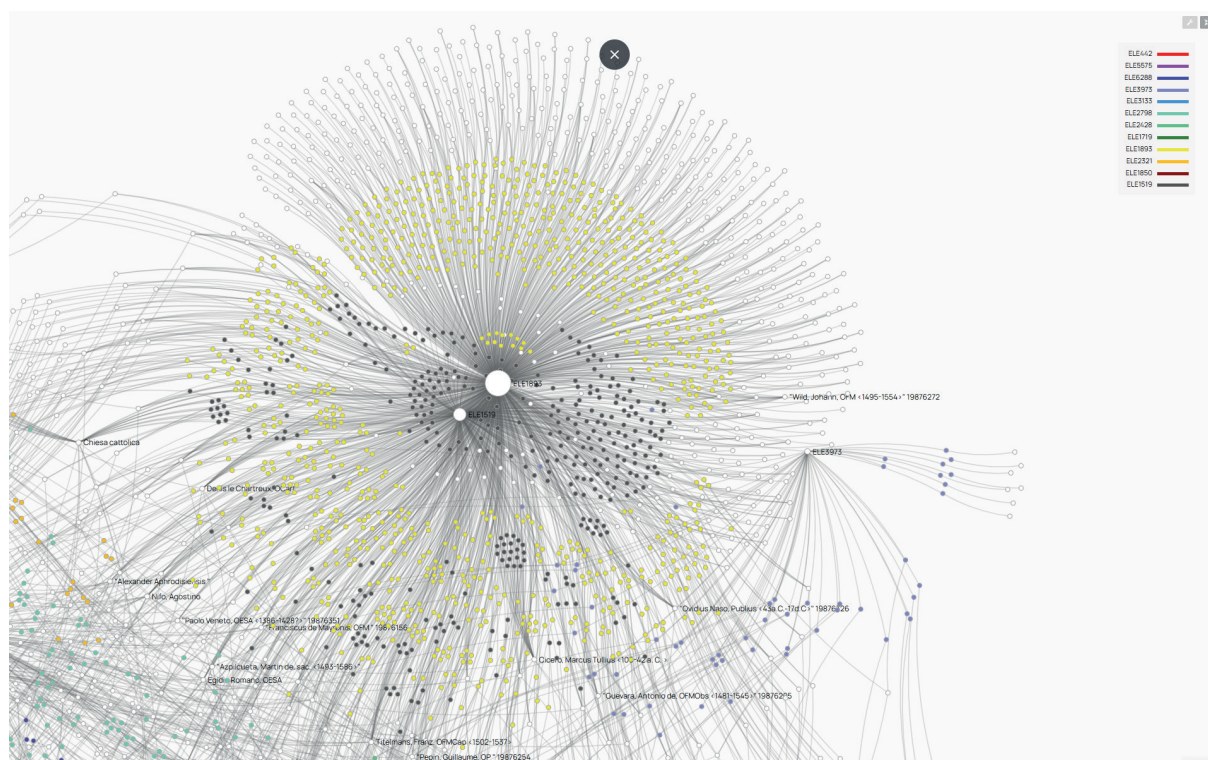


Figure 6. Close-up of Fig. 5 highlighting the book collection of Tommaso Felice da Ascoli (ELE3973) in relation to his peers.

At the other end of the network displayed in Fig. 5 are the collections of Gio. Andrea Prigisano (ELE 1519), a medical doctor, and Franciscus a Vicentia (ELE 1893), a teacher and theologian (see Fig. 6). The former is the only secular book owner singled out in the network isolated in Fig. 5; the latter owned by far the largest collection of the group. Both collections, for different reasons, show the greatest independence in the dataset (see Fig. 5).

Franciscus a Vicentia was a book owner who, as his name states, was born in the vicinity of one of the most productive sites of the European book market, Venice, where, internal evidence shows, he moved later in his life and had few problems in meeting the needs of his book acquisitions. In fact, he displays the largest collection of the group (941 items). Qualitatively, his collection shows an articulated interest in the field of philosophy, with particular reference to logic. He seems interested in argumentative theology, as suggested by the presence of two contemporary works (or nearly so in the case of Granada's book): Luis de Granada's *Ecclesiasticae rhetoricae sive De ratione concionandi libri sex* and Agostino Valier's *De rhetorica ecclesiastica*. Ironically, Franciscus a Vicentia declared ownership of a work by the very person (Agostino Valier) who, in the role of high functionary of the Congregation of the Index, had urged him to draw up his own inventory of books in the first place. Also, in the book collection of Franciscus a Vicentia, Sacrobosco's *De sphaera* is the single work related to the field of cosmology. The only ideal alliance that the *Tractatus* could be in this individual collection would be with works of Aristotelian physics, e.g., Pliny's *Historia naturale* that Franciscus owned in a vernacular translation.¹⁷

¹⁷ BIB 15893.

Gio. Andrea Prigisano, a secular medical doctor, owned a collection of books whose morphology set him apart from the rest of the group of owners of the *Sphaera* discussed here. The common denominator with Franciscus a Vicentia is a rich collection on eloquence and a similarly prominent selection of Aristotelian philosophy. Philosophical studies were indeed propaedeutic to a doctorate in medicine. What distinguishes the collection of Aristotelian philosophy of a clergyman from that of a physician is that if the former is mainly interested in logic, the latter is visibly more interested in physics.

However, the real difference in cultural attitude between an active priest like Franciscus a Vicentia and a secular physician like Gio. Andrea Prigisano is that the latter, despite having a relatively smaller collection, shows a more pronounced freedom in choosing books outside his own profession. His respectable collection of Christian literature feeds his piety and is the main link between this secular book collection and that of the clergy gathered in this sample. Perhaps the only piece of religious literature that could interfere with his practice is the *Conforto degli afflitti* (i.e., “Comfort of the Suffering”) by Gaspar de Loarte (SI), which could help him deal with difficult situations of suffering and death that his medical activity brought him close to.¹⁸ But some of his acquisitions probably simply fed his curiosity and helped him escape his daily practice: Iacopo Sannazzaro’s *Arcadia*,¹⁹ Diogenes Laertius, *De vita et moribus philosophorum libri decem* (a book consistent with his philosophical studies but also an example of virtuous living and a repository of learned secular knowledge),²⁰ an unidentified collection of proverbs,²¹ Dante Alighieri’s *Commedia*²² and Antonio Cornazzano’s *Dell’arte militare*.²³

5. Conclusions

The *Sphaera mundi* has proved its value in the discovery of learned collections in the Italian dioceses. It demonstrates that these collections stand out quantitatively and qualitatively from those of other, more modest clerics who populate the *Codices Vaticani latini* 11266-11326. Sacrobosco’s *Tractatus* had an uneven territorial distribution: more prominent near university centers and more scattered, but not absent, in rural areas. The most important conclusion to be drawn from this sample is that the *Sphaera* was virtually never located within book collections deeply invested in cosmological investigations. Rather, it was a stand-alone work used to acquire the rudiments of applied mathematics during entry-level studies by individuals with modest to significant academic and professional ambitions. Nonetheless, the *Sphaera* proved to be a valuable collectible; a book to boast of in a private collection or the reminder of a course of study that earned the owner his college degree.

¹⁸ BIB 4236.

¹⁹ BIB 17304.

²⁰ BIB 17355.

²¹ BIB 17394.

²² BIB 17404.

²³ BIB 17459.

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