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Publication date

2019

Document Version

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Citation for published version (APA):

van Vugt, I. (2019). *The structure and dynamics of scholarly networks between the Dutch Republic and the Grand Duchy of Tuscany in the 17th century*.

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Summary

The structure and dynamics of scholarly networks between the Dutch Republic and the Grand Duchy of Tuscany in the 17th century

In recent years, the theoretical and quantitative approaches of social network analysis have already made an impact in the historical field. Specifically, the Republic of Letters, the intellectual community of the sixteenth, seventeenth and eighteenth century, has emerged as a central subject in the digital humanities field. Based on large quantities of letter collections from the early modern period and with the help of digital techniques, the social networks of scholars are mapped in order to gain more insight into how the Republic of Letters worked in practice. But although the use of network analysis in historical research has attracted more and more scholarly attention, developments in this field remain open for further research. Most studies underline the potential utility of network metrics to better understand and study the past, but leave their exploration for future research. In addition, the use of digital tools is often looked upon in a suspicious way, considered to be too simplistic and hence unsuitable to deal with the complexity and uncertainty of historical sources. It is therefore important that we continue to test and improve our digital tools as well as to experiment with network models that give nuance, sophistication and detail to historical data. This study takes up this challenge and demonstrates how social network analysis enables us to advance the cause of historical inquiry.

This study focuses on the epistolary contacts between scholars from the Grand Duchy of Tuscany and the Dutch Republic during the reign of Cosimo III (1670-1723). The lively epistolary exchange between these two societies allows for a comprehensive view on the Republic of Letters, providing a framework to grasp the sometimes, conflicting dynamics in the sharing of knowledge. The opposed religious and social paradigms often influenced the choices people had to make in the formation of their network, and the strategies they adopted to achieve or ignore coordination on a collective scale. Indeed, early modern scholars had to deal with many tensions and inefficiencies at a time in which the openness of communication was not always guaranteed. These tensions ranged from restrictions imposed by the Roman Inquisition to scholarly rivalries. As a result, it seems that scholars often found themselves between extremes, struggling to find a balance in dealing with these tensions. They had to strategically negotiate between transparency and secrecy in written communication, between friendly and hostile relationships, and between open and closed circles in their network.

This dissertation consists of six chapters which contents can be broken down into two parts. The first part consists of three introductory chapters that provide background and an historical context on the relations between Tuscany and the Dutch Republic during the reign of Cosimo III. In particular, the first chapter discusses that secrecy and confidentiality were needed to foster the exchange between these two societies. The second chapter focuses on the travels of prince Cosimo in the Dutch Republic in the years 1667-1669 – an experience that has undoubtedly aroused the young prince's interest to maintain close contact with the Dutch scholarly community, despite his awareness of their difficult relationship with the Papacy. In order to foster and strengthen his relationships with the Dutch, Cosimo primarily relied on the administrative techniques and methods of learning handled by two principal figures at the Medici court: the grand ducal secretary Apollonio Basseti (1631-1699) and the court librarian Antonio Magliabechi (1633-1714). The co-existence of two such powerful men at the service of Grand Duke Cosimo III favored a substantial increase of correspondence and interchange between the Dutch

Republic and Florence in the second half of the seventeenth century. The third chapter discusses the stream of Dutch travelers who made their way to the Grand Duchy of Tuscany. The favorable attitude Cosimo III had towards them attracted several Dutch scholars, who came to Florence with the prospect of consulting the rich manuscript collections in the Florentine libraries.

The focus of the second part lies on the complexity of modeling historical “big data” with the help of quantitative methods to assess the structure of the relations between the Grand Duchy of Tuscany and the Dutch Republic. To do so, this study draws inspiration from social network theory. Social network theory highlights the constitutive importance of social networks and the techniques and strategies individuals used to forge ties with each other. The fourth chapter uses data-mining techniques to extract patterns of data from two datasets of letters (the *Catalogus Epistularum Neerlandicarum* and the Card Catalogue of the National Library of Florence) to create a network representation of the epistolary relations between these two societies. This network has been further enriched with archival transcriptions of letters extant in library collections of the Netherlands, Germany and Italy. The result is a dataset that comprises metadata of circa 10.000 correspondences. These distant reading techniques will be combined with a close reading of the correspondence to underpin the evolving dynamics of the early modern epistolary network. The value of this research lies thus in the combination of methods for network analysis for distant reading of large sets of letters with close reading devoted to achieving a deep understanding of the historical source. To denote this approach, this study introduces the term “disclose reading”.

In the fourth chapter, a set of metrics are discussed to capture some subtle distinction in how one’s network position benefits or disadvantages those people who occupy them. Specifically, I argue how quantitative network analysis can be used to analyze how early modern scholars strategically moved between closed and open circles in their network, showing how early modern scholars build network of trust and capitalized on opportunities for brokerage. On the one hand, they needed to guarantee that their network was secure and trustworthy – especially in light of the many tensions imposed by the Roman Inquisition. This means that they needed to build a closed and secure network of trusted correspondence first, before reaching out to more risky contacts abroad. Networks with closure – that is to say, networks in which everyone is connected to each other – facilitate coordination within the group, help to build a reputation, increase trust and are less likely to be infiltrated by outsiders. Yet, if people move in the same circles and know the same people, it is very likely that they have access to the same resources and information. To have access to innovative information and resources, they needed to get involved with scholars from outside their own circle of trust, reaching out to others who could provide them with new information and recently published books. In other words, they needed to become brokers in the networks. Hence, the key for a successful early modern career is to strike the right balance between closure and openness.

The fifth chapter focuses on the notion of structural balance, based on theories of social psychology developed by the Austrian psychologist Fritz Heider in the 1940s, which can be re-used in the context of the Republic of Letters to reason about how fissures in an epistolary network may arise from the dynamics of conflicts, disagreement and antagonism between corresponding scholars. In most approaches that map the Republic of Letters digitally, the edges have a rather positive meaning. Such representations reinforce the idea that the Republic of Letters was an ideal community of peaceful co-existence between intellectuals. Yet, traditional literature has taught us that the harmony of the ideal of the Republic of Letters was rarely achieved in reality. For instance, within the dynamics of cross-cultural exchanges between the Dutch Republic and the Grand Duchy of Tuscany, scholars had to deal with the many tensions and conflicts arising from the opposing political and religious realities. In addition, jealousy and competition dictated the choices scholars had to make in the formation of their network. Therefore,

this chapter will argue that the digital representation of the early modern scholarly network should also account for the negative and hostile relations in the network. To this end, the structural balance approach offers to capture both positive and negative links to understand the tensions within the network. In addition, it assumes that people constantly evaluate the quality of their relationships in order to achieve a balanced position in a network.

Because of the hybrid nature of epistolary networks and the lack of earlier studies that are undertaken to represent this complexity, in the sixth chapter an explorative approach has been proposed to deal with multiple kinds of data. In studying the networks that held the Republic of Letters together, we are often confronted with situations in which multimodality can be useful. Most studies employ a one-modal network in which one node of the graph represents a correspondent and an edge between a pair of nodes correspondents represents a letter exchanged between them. Yet, reducing the early modern society to a network in which the actors are connected by one single type suggests a static uniformity that barely takes into account the multi-faceted dynamics of epistolary exchange. Indeed, the Republic of Letters was not a single community that merely consisted of scholars writing letters to each other, but constituted a dynamic society in which all kinds of objects were exchanged. Amongst these objects, early modern scholarly correspondence revolved mostly around books. Therefore, the sixth, and final chapter discusses the importance of books as dynamic actors within the early modern epistolary network by means of multimodal visualizations. These networks reveal that the early modern network was tied, and untied, together primarily by means of books: they could foster ties when given as gift as well as influence and endanger the network if there were subject to the strict censorship laws imposed by the Holy Office.

Sommario

La struttura e dinamica delle reti intellettuali fra la Repubblica Olandese e il Granducato di Toscana nel Seicento

Soprattutto negli ultimi anni, l'analisi delle reti sociali (nota anche come *social network analysis*) ha avuto un considerevole impatto sull'avanzamento delle discipline storiche. In particolare, la Repubblica delle Lettere, la comunità intellettuale del XVI, XVII e XVIII secolo, è emersa come un argomento centrale nel campo delle *digital humanities*. Sulla base di una gran quantità di dati raccolti studiando le corrispondenze dell'età moderna con l'aiuto di metodi computazionali, si è proceduto a mappare il *social network* dei letterati per ottenere maggiori informazioni su come la Repubblica di Lettere funzionasse nella pratica. Ma nonostante l'analisi delle reti abbia attirato sempre più attenzione nel mondo accademico, tale ambito di ricerca non ha ancora completamente espresso tutte le proprie potenzialità. La maggior parte degli studi sottolinea la utilità delle metriche di rete, ma lascia la loro esplorazione per ricerche future. Inoltre, l'uso di strumenti digitali è spesso considerato in modo sospettoso, essendo ritenuto troppo semplicistico e quindi inadatto per affrontare la complessità e l'incertezza delle fonti storiche. Abbiamo quindi bisogno di continuare a verificare e affinare i nostri strumenti digitali oltre che sperimentare nuovi modelli di analisi che forniscano sfumature, raffinatezza e dettagli ai dati storici. Questa tesi coglie questa sfida e dimostra come l'analisi delle reti sociali ci consenta di avanzare la causa dell'indagine storica.

Questa tesi si concentra sui rapporti epistolari tra i letterati del Granducato di Toscana e della Repubblica Olandese durante il regno di Cosimo III (1670-1723). Il vivace scambio epistolare tra queste due società ci offre una visione comprensiva della Repubblica delle Lettere, fornendoci un quadro per cogliere le dinamiche, talvolta contrastanti, nello scambio dei saperi. Questo studio mostra che contesti religiosi e sociali opposti influenzavano le scelte delle persone nella formazione delle loro reti così come le strategie che essi adottavano per raggiungere o ignorare una collaborazione collettiva. In effetti, i letterati del prima età moderna dovevano affrontare molte tensioni e inefficienze in un momento in cui la libertà di comunicare non era sempre garantita. Queste tensioni andavano dalle restrizioni imposte dal Sant'Uffizio alle rivalità fra letterati, i quali dunque erano alla ricerca di un costante equilibrio per affrontare queste tensioni. Tutto ciò imponeva ai letterati la necessità di dover negoziare strategicamente tra trasparenza e segretezza nella comunicazione scritta, tra relazioni amichevoli e ostili e tra circoli aperti e chiusi nelle loro reti.

Questa tesi consiste di sei capitoli e può essere suddivisa in due parti. La prima parte è composta da tre capitoli che forniscono un quadro storico dei rapporti tra il Granducato di Toscana e la Repubblica Olandese durante il regno di Cosimo III. In particolare, il primo capitolo sostiene che segretezza e confidenzialità erano due ingredienti essenziali per favorire lo scambio tra la Toscana e l'Olanda nella seconda metà del Seicento. Il secondo capitolo si concentra sui viaggi di Cosimo nella Repubblica Olandese negli anni 1667-1669, un'esperienza che indubbiamente spinse l'allora giovane principe a mantenere stretti rapporti con la comunità intellettuale olandese, nonostante il difficile rapporto di quest'ultima con il Papato. Per favorire e rafforzare i suoi rapporti con gli olandesi, Cosimo si affidò principalmente a due figure della corte Medicea: il segretario granducale Apollonio Bassetti (1631-1699) e il bibliotecario Antonio Magliabechi (1633-1714). La presenza di due uomini così potenti al servizio del Granduca favorì un sostanziale aumento nella corrispondenza e interscambio tra la Repubblica Olandese e Firenze. Il terzo capitolo discute del flusso di viaggiatori olandesi verso il Granducato di Toscana.

L'atteggiamento favorevole che Cosimo III ebbe verso questi viaggiatori attrasse molti letterati olandesi, i quali si approfittarono di questa opportunità per consultare le ricche raccolte di manoscritti nelle biblioteche fiorentine.

La seconda parte (capitoli 4-6) si focalizza sulla complessità di maneggiare grande quantità di dati storici attraverso l'uso di metodi quantitativi, con particolare riferimento all'analisi delle reti sociali. Tale teoria evidenzia l'importanza costitutiva delle reti sociali e le tecniche e strategie utilizzate dagli individui per stringere rapporti tra di essi. Il quarto capitolo illustra l'utilizzo di tecniche di *data mining* applicate all'analisi di due cataloghi di corrispondenze (il *Catalogus Epistularum Neerlandicarum* e il Catalogo dei carteggi della Biblioteca Nazionale Centrale di Firenze). I dati così ottenuti sono stati ulteriormente arricchiti con trascrizioni di lettere esistenti nelle biblioteche dei Paesi Bassi, della Germania e dell'Italia, creando così un database contenente informazioni relative a circa 10.000 corrispondenze. Oltre a fornire la base per l'applicazione degli algoritmi, tale database costituisce il nucleo di questa ricerca, il cui valore risiede quindi nella combinazione di *close* e *distant reading* delle corrispondenze. Nell'ambito di questo studio, tale combinazione è identificata con il termine *disclose reading*.

Nel quarto capitolo, è discusso il modo in cui la posizione di un individuo all'interno di una rete possa generare una situazione di vantaggio (o svantaggio). In particolare, i letterati della prima età moderna avevano la necessità di muoversi strategicamente tra circoli aperti e chiusi, usufruendo da un lato delle opportunità di intermediazione, e garantendo dall'altro lato l'affidabilità della propria rete soprattutto alla luce delle numerose tensioni imposte dal Sant'Uffizio. Il carattere chiuso di una rete – i cui partecipanti sono tutti in rapporto uno con l'altro – facilita la collaborazione all'interno della rete stessa, aiuta a costruire una reputazione, aumenta la fiducia reciproca e diminuisce le possibilità di infiltrazioni dall'esterno. Tuttavia, i membri di un circolo chiuso hanno tutti tipicamente accesso alle stesse risorse e informazioni. Per avere accesso a risorse e informazioni innovative, bisogna entrare in contatto con individui estranei alla propria cerchia di fiducia. In altre parole, bisogna saper agire come broker o intermediari tra due o più reti. Quindi, la chiave per una carriera di successo è trovare il giusto equilibrio tra apertura e chiusura nei rapporti.

Il quinto capitolo prende in esame il concetto di *structural balance*, sviluppato dallo psicologo austriaco Fritz Heider negli anni '40, che può essere utilizzato per analizzare le divisioni all'interno di una rete epistolare. La maggior parte degli studi che cercano di mappare la Repubblica delle Lettere utilizzando strumenti digitali tendono a focalizzarsi solo sui rapporti positivi, restituendo così l'immagine di una comunità caratterizzata dalla convivenza pacifica tra i letterati. Al contrario, recenti studi hanno dimostrato che questa immagine idilliaca della Repubblica delle Lettere fosse ben lontana dalla realtà dei fatti. Per esempio, negli scambi interculturali tra la Repubblica Olandese e il Granducato di Toscana, i letterati dovevano spesso affrontare tensioni e conflitti derivanti dalle opposte realtà politico-religiose oltre che dalla gelosia e competizione tra i letterati stessi. Per questa ragione, il quinto capitolo porta avanti la tesi che le rappresentazioni digitali dell'età moderna devono anche tenere conto delle relazioni negative e ostili che attraversano una rete. A tal fine, viene proposto l'utilizzo della *structural balance theory*, che considera la qualità dei rapporti sia positivi che negativi intrattenuti da un individuo al fine di raggiungere una posizione di equilibrio all'interno di una rete.

Nel sesto e ultimo capitolo, è proposto un approccio esplorativo per far fronte alle complessità derivanti dalla natura ibrida dei dati storici. La maggior parte degli studi digitali sulla Repubblica delle Lettere fa uso di *uni-modal networks*, nei quali un solo tipo di *nodes* e *edges* viene utilizzato per rappresentare, rispettivamente, i corrispondenti e le lettere. Questo modello, tuttavia, è caratterizzato da un'uniformità statica che non sembra tener conto delle ricche dinamiche dello scambio epistolare. Infatti, le lettere non erano gli unici oggetti a circolare all'interno della Repubblica delle Lettere, essendo anche i libri oggetto di un vivace scambio. Pertanto, il sesto capitolo propone l'utilizzo di *multi-modal networks* al fine di

rivalutare l'importanza dei libri come attori dinamici all'interno delle reti epistolari. In questo modo, il sesto capitolo rivela che la società della prima età moderna era tenuta assieme principalmente per mezzo dei libri, i quali potevano favorire i legami quando venivano dati in dono, ma potevano anche minacciare la tenuta di una rete qualora fossero oggetto di censura o di scrutinio da parte del Sant'Uffizio.

Samenvatting

De structuur en dynamiek van geleerdennetwerken tussen de Nederlandse Republiek en het Groothertogdom van Toscane in de Zeventiende eeuw

In de afgelopen jaren hebben de methodes en inzichten van sociale netwerkanalyse het historisch vakgebied sterk beïnvloed. In het bijzonder heeft de Republiek der Letteren, het internationale Europese netwerk van geleerden in de periode tussen de vijftiende en de achttiende eeuw, in de *digital humanities* volop in de belangstelling gestaan. Op basis van grote hoeveelheden brievencollecties uit de vroegmoderne tijd en met behulp van digitale technieken zijn de sociale netwerken van geleerden in kaart gebracht om meer inzicht te krijgen in hoe de Republiek der Letteren in de praktijk werkte. Hoewel het gebruik van netwerkanalyse ten behoeve van historisch onderzoek steeds meer aandacht krijgt, blijven de ontwikkelingen binnen dit vakgebied open voor nader onderzoek. De meeste studies onderstrepen het potentieel van netwerkanalyse om het verleden beter te begrijpen en te onderzoeken, maar de daadwerkelijke implementatie laat nog op zich wachten. Bovendien worden nieuwe digitale technieken vaak sceptisch bekeken, zelfs als te simplistisch beschouwd en daarom ongeschikt om complexe en onzekere historische bronnen te kunnen analyseren. Het is daarom van belang om digitale methodes en tools te blijven toetsen en verder te ontwikkelen, alsmede te experimenteren met netwerkmodellen die nuance, subtiliteit en detail geven aan historische data. Met dit proefschrift ga ik deze uitdaging aan en laat ik zien hoe sociale netwerkanalyse het historisch onderzoek kan bevorderen.

Deze studie richt zich op het schriftelijke contact tussen de Nederlandse Republiek en het Groothertogdom van Toscane tijdens het bewind van groothertog Cosimo III (1670-1723). De levendige briefwisseling tussen deze twee samenlevingen biedt een brede, omvattende blik op de Republiek der Letteren en creëert een kader voor de soms tegenstrijdige dynamieken in de uitwisseling van kennis. De tegengestelde religieuze en sociale realiteiten waren vaak van invloed op de keuzes die vroegmoderne geleerden moesten maken bij het vormen van hun netwerk alsmede voor de strategieën die zij gebruikten om wel of niet bij te dragen aan het bevorderen van het collectief belang. Vroegmoderne geleerden hadden vaak te maken met spanningen en inefficiënties, voornamelijk in een tijd waarin de vrijheid van communicatie niet altijd gegarandeerd was. Deze spanningen varieerden van de beperkingen opgelegd door de Inquisitie tot rivaliteit onder geleerden onderling. Om met deze spanningen om te gaan, moesten geleerden de juiste balans vinden: zo moesten zij strategisch bemiddelen tussen openheid en geheimhouding in schriftelijke communicatie, tussen vriendschappelijke en vijandige relaties en tussen open en gesloten cirkels in hun netwerk.

Dit proefschrift bestaat uit zes hoofdstukken en kan in twee delen worden onderverdeeld. Het eerste deel bestaat uit drie hoofdstukken die een historische achtergrond en context bieden voor de relaties tussen Toscane en de Nederlandse Republiek tijdens het bewind van Cosimo III. In het eerste hoofdstuk wordt met name gesteld dat geheimhouding en vertrouwelijkheid essentieel waren om de uitwisseling van kennis tussen deze twee samenlevingen te bevorderen. Het tweede hoofdstuk richt zich op de twee reizen van prins Cosimo in de Nederlandse Republiek in de jaren 1667-1669 – een ervaring die ongetwijfeld heeft bijgedragen aan de motivatie van de jonge prins om nauw contact te onderhouden met de Hollandse geleerdenkringen, en dit ondanks het feit dat deze vaak op gespannen voet stonden met het Pausdom. Om de relaties met de Nederlandse Republiek te onderhouden, rekende Cosimo op de diensten van twee sleutelfiguren aan het Medici hof: staatsecretaris Apollonio Bassetti (1631-1699) en

bibliothecaris Antonio Magliabechi (1633-1714). Beiden zorgden voor een aanzienlijke toename in de uitwisseling van brieven tussen het Medici hof en de Nederlandse Republiek in de tweede helft van de zeventiende eeuw zorgden. Het derde hoofdstuk bespreekt de stroom van Nederlandse reizigers naar het Groothertogdom van Toscane. De open houding die Cosimo III aannam ten opzichte van de Nederlandse Republiek stimuleerde geleerden om naar Florence af te reizen om de rijke manuscriptencollecties daar te raadplegen.

Het tweede deel richt zich op de complexiteit van het modeleren van historische “big data” met behulp van kwantitatieve methoden om de structuur van het netwerk tussen de Nederlandse Republiek en het Groothertogdom van Toscane te analyseren. Dit onderzoek is geïnspireerd door technieken van sociale netwerkanalyse die inzicht geven in hoe een netwerk tot stand komt en welke strategieën individuen hanteren om zich in dit netwerk te positioneren. In het vierde hoofdstuk worden *datamining* technieken gebruikt om gegevens te verzamelen uit twee brievencatalogi, te weten de *Catalogus Epistularum Neerlandicarum* en de gedigitaliseerde kaartencatalogus van de Nationale Centrale Bibliotheek van Florence. Aan de hand van deze data, die verder zijn aangevuld met gegevens verzameld uit Nederlandse, Italiaanse en Duitse bibliotheek- en archiefcollecties, is een netwerkmodel gecreëerd van 10.000 brievenuitwisselingen tussen de Nederlandse Republiek en Toscane. Het belang van dit onderzoek ligt met name in de combinatie van traditioneel interpretatief historisch onderzoek met “distant reading” van een grote hoeveelheid brieven. Voor deze methode introduceerde ik de term “disclose reading”.

In het vierde hoofdstuk is besproken hoe een bepaalde positie in een netwerk voordelen op kan leveren of juist nadelig kan zijn. Deze netwerkposities worden uitgewerkt aan de hand van een kwantitatieve netwerkanalyse dat inzicht biedt in hoeverre vroegmoderne geleerden zich strategisch tussen open en gesloten cirkels in hun netwerk bewogen. Vooral ten tijde van de Inquisitie was het belangrijk om een veilig en betrouwbaar netwerk op te bouwen. Gesloten netwerken - dat wil zeggen, netwerken waarin iedereen met elkaar verbonden is – vergemakkelijken samenwerking, helpen een reputatie op te bouwen, stimuleren vertrouwen en worden minder snel door buitenstaanders geïnfilteerd. Echter, als mensen zich steeds in dezelfde gesloten kringen bevinden en omgaan met dezelfde mensen is het zeer waarschijnlijk dat ze toegang hebben tot dezelfde bronnen van informatie. Om toegang te hebben tot nieuwe kennis moesten ze in gesprek raken met geleerden van buiten hun eigen vertrouwelijke kring die hen van nieuwe informatie en recent gepubliceerde boeken konden voorzien. Met andere woorden, ze moesten *brokers* in hun netwerk worden. Het vierde hoofdstuk stelt dus dat de juiste balans tussen gesloten en open netwerken essentieel is voor de carrière van de vroegmoderne geleerde.

Het vijfde hoofdstuk richt zich op het begrip *structural balance*, gebaseerd op theorieën uit de sociale psychologie ontwikkeld door de Oostenrijkse psycholoog Fritz Heider in de jaren 40. Dit concept kan worden gebruikt om te redeneren over hoe verdeeldheid binnen een netwerk kan ontstaan vanuit conflicten, onenigheid en antagonisme tussen geleerden onderling. Analyses van de Republiek der Letteren hebben verreweg het meeste aandacht gegeven aan positieve relaties. Zulke representaties versterken het idee dat de Republiek der Letteren een ideale gemeenschap was van een vreedzame samenwerking tussen geleerden. Toch was voor veel geleerden de werkelijkheid vaak anders en werd het ideaal van de Republiek der Letteren zelden bereikt. Zo moesten zij vaak omgaan met de vele spanningen en conflicten die voortvloeiden uit de tegengestelde politieke en religieuze visies tussen verschillende samenlevingen. Bovendien beïnvloedden jaloezie en concurrentie de onderlinge relaties in een netwerk. Om deze reden laat dit hoofdstuk zien dat de digitale weergave van het vroegmoderne geleerdennetwerk ook rekening moet houden met negatieve invloeden. Aan de hand van de *structural balance theory* is het mogelijk om zowel positieve als negatieve relaties in een netwerk in kaart te brengen om zo inzicht te krijgen in hoeverre vroegmoderne geleerden bemiddelden tussen vrienden en vijanden om een evenwichtige positie in hun netwerk te bemachtigen.

Vanwege het veelzijdige karakter van correspondentienetwerken en het gebrek aan eerdere studies om deze complexiteit te vertegenwoordigen, is in het zesde hoofdstuk een explorerende benadering uiteengezet om met verschillende soorten data om te gaan. De meeste studies die de Republiek der Letteren digitaal in kaart brengen, maken gebruik van een *one-modal* netwerk representatie, waarin een enkel type *nodes* en *edges* worden gebruikt om respectievelijk de schrijvers en de brieven weer te geven. Dit model houdt echter geen rekening met de veelzijdige dynamiek van de Republiek der Letteren. Naast brieven, werden er ook boeken uitgewisseld. Daarom richt het zesde hoofdstuk zich op het gebruik van *multimodal networks* waarmee de rol van het boek in het correspondentienetwerk kan worden weergegeven. Deze netwerken laten zien dat boeken netwerken konden bijeenhouden of juist uit elkaar konden laten vallen: ze konden relaties bevorderen wanneer ze als geschenk werden gegeven maar vormde ook een bedreiging als ze aan censuur werden onderworpen door de Inquisitie.