

Invisible Agents: Networks of Learning in Late Antiquity

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Abstract

This paper is an examination of my experience conducting a UROS funded project. In late antiquity (approximately AD 200 to AD 700), pedagogues were frequently defined as low-status, occasionally enslaved, individuals who acted as carers and teachers, introduced to guide and support young children in their studies (Brown, 1989). They apparently acted at the fringes of the educational system, appearing to have a less central, influential role within networks of education (Norman, 2000). My research aimed to broaden our understanding of the precise role that these pedagogues played, by analysing the letter collections and educational networks of the teachers with whom they interacted, looking especially at the role that these lower class, often anonymous pedagogues, played within broader networks of learning. By examining the numerous letters of one well-connected teacher of rhetoric from Antioch, Libanius (c.314 - c.393), accessing them through the collection as compiled and translated by Raffaella Cribiore (Cribiore, 2007), the research created visual representations of the content of his letters and his network of associates using network analysis tools. My research demonstrated that unnamed pedagogues were more connected and possessed higher influence than was initially expected, especially within their local networks. This discussion explores my experience of undergoing this research and outlines the benefits this project had for me personally in developing skills in this field of study.

Keywords: Libanius, pedagogy, Late Antiquity, letter writing, social networks, digitalisation and visualising history

Introduction

UROS is the Undergraduate Research Opportunities Scheme which provides an opportunity for students to become engaged in conducting academic research. It involves working with academics in the student's field who will supervise the project, and promotes the idea of collaborative research, under Student as Producer by placing the student as a partner with the academic. My research involved meeting with my supervisors regularly to discuss our ideas for the project and to review my work, which I found to be a uniquely beneficial aspect of the Student as Producer

method, as it allowed me to have an active role in planning research strategies and shaping the direction of enquiry as the research progressed. This collaboration revealed to me the reality of academic research environments and the processes behind conducting one's own enquiry in collaboration with others through meetings, working to deadlines set for the team, and discussing smaller issues regularly with others. These are aspects of research that are not usually encountered over the course of independent, faculty-directed undergraduate study, and is illustrative of the benefits of the Student as Producer approach which helps 'students become part of the academic project of the University and collaborators with academics in the production of knowledge and meaning' (<https://lalt.lincoln.ac.uk/student-as-producer/>). The scheme requires the student to submit their project proposal and then, if successful, receive funding, and complete their research within a set timeframe. As an outcome at the end of the project the student writes a blog post, creates a poster and a presentation to share their findings and review their experiences, disseminating their research to an academic audience.

Project Background

This project aimed to broaden our understanding of the role that pedagogues played in networks of learning in late antiquity, as well as social networks more broadly. Evaluation of approximately sixteen hundred letters written by Libanius to his friends, colleagues, and students were reviewed, many of which have been translated into English. We chose Libanius due to the number of his surviving letters and the unique level of detail included within them, such as geographical references, named individuals and specific dates. It was also important that many of Libanius' other works are also accessible, such as his orations and declamations, enabling us to triangulate with the letters.

We read through Libanius' letters, as translated and organised in a collection by Raffaella Cribiore, adding them to a Microsoft Excel spreadsheet, including detail about the social relationships between people mentioned in the letters (Cribiore, 2007). We were then able to process and visualise this information using ConnectTheDots, which presents networks graphically. This visualization provides information about an individual's degree of connectivity (the immediate number of connections it has) as well as their centrality (how much of a 'connector' they are). A good connector is translated to mean lots of individuals can pass through this connector to get to other individuals. The application of ConnectTheDots' graphical representations explained the role pedagogues were playing in Libanius' network. We also aimed to assess the value of digital network analysis for conducting these types of enquiries, as a method. While our primary aim was to discover the role of unnamed pedagogues in systems of late antique education, this project taught us about the use of some digital platforms for historical enquiry and how useful they are in the translation and analysis of qualitative data.

Review of literature

Previous scholarship on the study of social networks in late antiquity as well as the role of pedagogues within educational networks informed our project (See Sandwell, 2007; Lenski, 2018-2019). Sandwell's article offers a systematic breakdown of who Libanius was engaging with as he wrote and why. She notes that during the fourth century AD there was tension between imperial elites and civic needs, and Libanius, although a typical representative of traditional Greek civic values and culture, was connected to a wide range of individuals from all social standings, using personal connections for practical gain (Sandwell, 2007). Her analysis of Libanius' networks aided our understanding when approaching his letters, offering insight into his contemporaneous society and his formation and engagement with social networks. Like Sandwell Lenski situates Libanius within specific social networks (Lenski, 2018-2019). Arguing that while early imperial Rome relied heavily on slaves for most trades, by the fourth century AD slavery was far less relied upon, including in the educational professions. Through the discussion of Libanius' letters, observations were made on the pedagogues at length and how much the letters reveal their relative status. Lenski's work has been partly responsible for inspiring this study, as it provoked intrigue as to the true influence and role of pedagogues during this period, and directed us towards Libanius' letters as a detailed, extensive source.

Methodology

The research was completed in several stages. To begin, I filtered Libanius' letters so I could begin by reading the most relevant ones. I wordsearched for letters containing the word 'pedagogue' and plotted information and metadata about each into an Excel spreadsheet.

	A	B	C	D	E	F
1	Cribiore	Summary	Category	Source	Target	Nature of Relationship (target is ...?)
176	177	' son and his report, prais		Libanius	Stratonicus	Addressee
177	177			Libanius	Stratonicus' son	Student
178	177			Stratonicus	Stratonicus' son	Son
179	177			Stratonicus'	Unnamed Pedagogue 1	Pedagogue of S' son
180	177			Libanius	Unnamed Pedagogue 1	Mentioned in letter
181	177			Stratonicus	Unnamed Pedagogue 1	Pedagogue of his son
182	177			Libanius	Priscianus 1/i	Mentioned in letter. P1/I is
183	177			Stratonicus	Priscianus 1/i	Mentioned in letter, 'Relative and governor'
184	177			Stratonicus'	Priscianus 1/i	Mentioned in letter, 'Relative and governor'

Fig. 1 A section of the spreadsheet illustrating how relationships were input on separate rows, with some surrounding information. More columns exist for referencing, geographical information, and notes which are not present in the screen capture. The example letter here is number 177, using its Cribiore reference.

177 F172 (year 359/60): To Stratonicus

1. We number you among those who are in the *choroi* of the Muses, since knowing how to admire those who are educated is also part of education. Acknowledge gratitude to the gods on account of the nature of your son: he has a ready wit and good memory, is one of those who want to learn, and already shows that his voice will become excellent with time. 2. Indeed, his pedagogue is no less than a father in terms of kindness—however much you give him, you will still give little. About my disposition toward my students, your relative and governor⁸⁹ is there to tell you; he is as devoted to you as I am.

Fig. 2 An example of what the letter initially looked like. This is Letter 177, the letter also used in the spreadsheet illustration in Fig. 1 (Criore, 2007).

We were particularly interested in the relationships described in the letters. Every relationship mentioned or implied within the letter was plotted on a separate row, ready to be copied into the ConnectTheDots software. The remaining letters were analysed in much the same way, plotting their data into the spreadsheet.

The next stage was to group the letters relevant to our current interests. In Criore, the letters were often grouped in a dossier. Often, an unnamed pedagogue would be mentioned in a letter within a dossier, but not the others, although the others inform us about the students' connections and hence the pedagogue's. For example, Unnamed Pedagogue 1 features in one letter within the Dossier of the Son of Stratonicus, but the other letters within the dossier explain more about Stratonicus' son's connections and need to be linked. By grouping dossiers, we can understand the shape of a pedagogue's network more fully. Finally, analysis focused on each group and plotting them individually with ConnectTheDots. The resulting graphic helped us to understand the pedagogue's centrality and connectivity, and gave us an impression of the overall shape of Libanius' educational network, and the smaller ones within it. The final step was to examine these graphs more fully and identify trends in what they tell us regarding pedagogues in late antiquity, comparing them to one another and viewing how a pedagogue's influence shifts (Mansell, 2021).

Results

Once the graphs were generated, it was possible to analyse and compare results. We were able to examine a particular individual's degree of connectivity (as in, the amount of immediate connections they have) and how well-connected they were relative to others within their local social network. For example, when we compare

the degree (5) and centrality (0.009, remembering that the higher the figure the more connected the individual is) of Unnamed Pedagogue 1 (Figs. 3 and 4) to that of Unnamed Pedagogue 3 (Fig. 5), it becomes apparent that the centrality and immediate influence of pedagogues on a smaller network can change significantly, and these graphs create more questions about why that is.



Fig. 3 The graph generated from Unnamed Pedagogue 1's group of letters.

Node [®]	Degree [®]	Centrality [®]
Libanius	7	0.128
Stratonicus' son	7	0.128
Leontius	6	0.259
Stratonicus	6	0.083
Unnamed Pedagogue 1	5	0.009
those with whom Stratonicus' son was'	4	0
Priscianus 1/i	3	0
Theodotus	3	0
Leontius' son	1	0

Fig. 4 The accompanying information from the graph generated from Unnamed Pedagogue 1's group of letters.



Fig. 5 The graph generated from Unnamed Pedagogue 3's group of letters.

Although when we look at them in the broader scale pedagogues are often on the fringes of Libanius' networks, as we anticipated, these graphs and the pedagogues' varying centrality and connectivity illustrate how this is not always the case. The graphs suggest that pedagogues could sometimes hold central positions within their local networks. Even the unnamed pedagogues that Libanius did not name (because he did not deem it an important detail or because he did not know, perhaps) were in positions to potentially influence students, parents, and Libanius himself. Using network analysis, we were able to develop our understanding of the connections of unnamed pedagogues beyond the more rhetorical opinions expressed by Libanius in both his speeches and letters. This illustrates the value of network analysis in representing data visually, allowing for a deeper examination of social connections than is possible with more traditional textual analysis.

This project has also led to further investigations with different foci. Having the letters digitised in a spreadsheet allows this kind of research to be easily pursued via digital platforms, and for varying amounts of detail to be accessed quickly depending on the needs of the researcher. Many more visual representations of the letters of Libanius can now be created using different digital tools, enabling a further understanding of late antique educational networks, for example by generating maps and timelines. Visual representations of texts, particularly classical texts, are more accessible to a range of scholars with various interests, encouraging research in different fields. It also makes collaborative research easier.

In terms of limitations and potential next steps, due to issues with scheduling and technical difficulties, not all of the letters were examined. There is therefore still much

that can be learned about pedagogues from looking at Libanius' remaining letters, and much that can be learned about letter-writing practices, familial relations, geographical connectivity, political connectivity and much more. Another avenue for future study would be to consider other texts beyond Libanius' letters, such as his orations, or even texts by other writers, with an emphasis on points of intersection between their writings and Libanius'. This would allow us to create an even bigger impression of late antique educational networks.

This project has enabled potential future enquiries and illustrates the value of network analysis and visual data. It has demonstrated the value both of Libanius' letters and of network analysis itself as sources and tools for broadening our understanding of the role of (often unnamed) pedagogues in late antiquity. By furthering levels of understanding of historical relationships and influences of groups more broadly, this research, enables greater understanding of the social positions of these often unnamed, unfree people more fully, rather than keeping them on the periphery, as they always have been.

UROS Experience

This experience has been a unique opportunity which has allowed me to explore areas I am interested in pursuing further, as well as introducing me to new ideas and burgeoning approaches to handling historical texts and data. I have gained technical skills in digital literacy and network analysis tools. This project introduced me to network analysis as process for approaching data, and has inspired a deeper interest in this area and ideas about its potential for examining historical texts. Completing the project during the pandemic was a unique experience as it was fully completed online which presented communication and technical challenges. However, completing this student-led research also aided me in developing new skills and fostering my interests at a time when it was difficult to stay motivated and develop my learning.

As a student, this opportunity has allowed me to engage with my studies in a different capacity, encouraging me to consider new methods of approaching texts. It also illustrated how academic research itself often operates, and how collaborative research itself can aid an individual in their studies. Personally, completing this research has motivated me to continue with my study and participate in as much research as possible during my time at university, as well as beyond. It has therefore aided me in my day-to-day studies, as well as helping me to set future career and research goals.

This experience will inform my future study as I have learnt the skills to extract important data from texts efficiently, and how to use more visual methods to analyse and present what I have found. It has given me ideas for further possible related research and applications for this data, such as using it to create maps and timelines, as well as more expansive graphs. In conclusion, my experience with UROS has

been overwhelmingly positive and the scheme has provided me with a unique perspective on the kinds of academic research that I wish to pursue in future.

Conclusion

To any student considering whether to participate in the scheme, my advice is to apply. The process of undergoing the research itself was such a rewarding experience which revealed more about the true nature of academic research to me. It taught me about common research methods and practices, as well as how to meet the expectations placed on researchers such as how to schedule your work effectively, set goals, communicate with fellow researchers and disseminate your findings to people with varying levels of prior knowledge of the topic.

For this project specifically, I feel as though I have made an impact on the study of pedagogy in late antiquity and helped to lay the foundations for further research in this area using network analysis. Our research has revealed that unnamed pedagogues held varying degrees of influence within educational networks, and some were significantly more influential than others, but it also revealed to us that they possessed more sway than some previous historians have noticed. In Libanius' case, we now understand that pedagogues in his local network were, in fact, more highly respected and connected than his often-debasing comments on them in letters and other writings might suggest. This project has therefore aided not only me personally, but also all those wishing to study pedagogy, historical texts, epistolary sources, educational networks or network analysis in the future.

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