A Community Under Attack: Protestant Letter Networks in the Reign of Mary I

Ahnert, R; Ahnert, SE

A COMMUNITY UNDER ATTACK: PROTESTANT LETTER NETWORKS IN THE REIGN OF MARY I

Ruth Ahnert, School of English and Drama, Queen Mary University of London, Mile End Road, London E1 4NS, U.K. E-mail: r.r.ahnert@qmul.ac.uk

S. E. Ahnert, TCM Group, Cavendish Laboratory, J.J. Thomson Avenue, Cambridge CB3 0HE, U.K. E-mail: sea31@cam.ac.uk

Abstract

This article uses mathematical and computational techniques to reconstruct and analyze the social and textual organization of the underground community of Protestants living in England during the reign of Mary I from 289 surviving letters.
Keywords: Protestant Reformation, correspondence, quantitative network analysis

Mary I of England is famed for her persecution of the Protestant church. During her short reign (1553-1558) at least 284 "heretics" were burnt to death. This article is concerned with the question of what a community does when it is placed under systematic attack. In the case of the Marian Protestants, those who were not imprisoned or executed had to practice their faith in secret or exile. Despite this, the church survived and left behind a significant body of letters, which provides a valuable source for network analysis. By stripping these letters back to simple meta-data (identities of senders and recipients, dates of composition, and reported social links), we are able to partially reconstruct the social and textual organization of this dissident community. The 289 letters used for this study form a network with 377 actors (nodes), and 795 social interactions (edges). By analyzing the topological properties of this network we observed both expected patterns – that martyrs are central to the organization of this community – and some surprising facts: that letter carriers and financial sustainers were more significant than we may have previously suspected.

The influence of a node within a social network is typically quantified by measuring its centrality. Betweenness centrality quantifies the number of times a specific node lies on a shortest path between two other nodes, which allows us to think about the routes Protestant communications took. The top 20 nodes by this measure are mostly predictable: 14/20 are martyrs; another is a leader of the separatist group known as the Freewillers. But it also highlights Anne Smith, Barthram Calthorpe, William Bowyer, Augustine Bernher, and Margery Cooke – figures almost entirely absent from historical accounts of the Marian persecutions. Significantly, these figures occupy similar roles in their relationship to the celebrated martyrs of the Marian reign, funneling letters, goods, and oral messages between prisoners and communities elsewhere in England. Bernher was a valuable letter courier, and Cooke was one of a group of (mostly female) financial sustainers, who sent Protestant prisoners money, clothes, food, and other means of physical and emotional support. The significance of those financial sustainers is emphasized further when we measure the eigenvector centrality of each node. A node that has a high eigenvector score is one that is adjacent to nodes that are themselves high scorers: "the idea is that even if a node influences just one other node, who subsequently influences many other nodes (who themselves influence still more others), then the first node in that chain is highly influential" [1]. The top 20 nodes by this measure include 12 martyrs, 2 letter couriers and 6 financial sustainers (5 of which were women). Therefore we see that many of the most "influential" people in this community were not those dying for their faith, but rather those infrastructural figures who served the needs of others.

The significance of couriers and sustainers becomes more marked as Mary I's reign progresses. Studies have shown that one of the most effective ways to fragment a network is to remove nodes with the highest betweenness [2]. The underground Protestant community in the reign of Mary I was placed under systematic attack by the authorities. Through the program of burnings, 14 of the top 20 nodes for betweenness were removed between Mary I's accession and the end of July 1558. If we compare the complete network with the network that remains after this date (Fig. 1), it is clear that the executions had a devastating effect on the shape of the Protestant community; but, crucially, the network does not fragment. This is because the network retains its infrastructural backbone: we are left with a network in which sustainers and couriers (Bernher, Cooke and one William Punt) have the highest betweenness. Bernher and Punt seem to have taken on increasingly important roles as leaders died, themselves providing leadership within the underground London congregation.

By applying network analysis to the study of this important letter collection, we can provide an alternative view of Reformation history. Martyrs have dominated the history of the Protestant church, from contemporary accounts of the Marian persecution through to modern scholarship. By contrast, this work shows that we should not underestimate the role of apparently minor figures in the maintenance of the faith during this period of intense persecution. As such, it offers a hypothesis about the organization and structure of underground communities, from persecuted minorities to terror cells: that their success and longevity depends upon infrastructural figures.
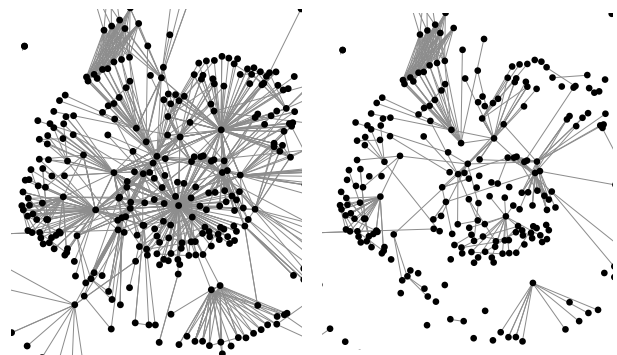

Fig. 1: The entire letter network up to 28 July 1558 (left), and the letter network of those individuals that were still alive on 28 July 1558 (right).

References and Notes

*This paper was presented as a contributed talk at Arts, Humanities, and Complex Networks – 4th Leonardo satellite symposium at NetSci2013. See http://artshumanities.netsci2013.net - For a full account of this research see Ruth Ahnert and Sebastian E. Ahnert, 'Protestant Letter Networks in the Reign of Mary I: A Quantitative Approach', *English Literary History* (forthcoming).

1. Stephen P. Borgatti, "Centrality and Network Flow," *Social Networks* **27**(2005) p. 61.

2. M. Girvan and M.E.J. Newman, 'Community Structure in Social and Biological Networks,' *PNAS* **99** (2002), pp. 7821-7826.