

Comparing Chronicles: Mapping Knowledge Networks in the Carolingian Empire

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Introduction

The Comparing Chronicles Project in Wesleyan's Travelers' Lab seeks to rethink medieval knowledge networks—how information traveled and spread—by developing new methods to identify shared information between Carolingian chronicles. The Carolingian Empire, a large early medieval state covering much of Western Europe, recorded its history in Latin chronicles, terse, year-by-year accounts consisting of straightforward lists of what took place. This poster examines the *Annals of Fulda*, a family of ninth-century chronicles that often describe the same historical events using language that may be slightly different, completely different, or exactly the same. Whereas traditional methods of textual analysis frequently seek to correct these differences in pursuit of an "original" text, the Comparing Chronicles Project instead looks past them by treating shared events, rather than the texts themselves, as the fundamental unit of analysis. By separating these events from their different textual representations, we can compare chronicles without privileging any one version of the text, producing new visualizations and quantitative analyses of the information shared among Carolingian chroniclers.

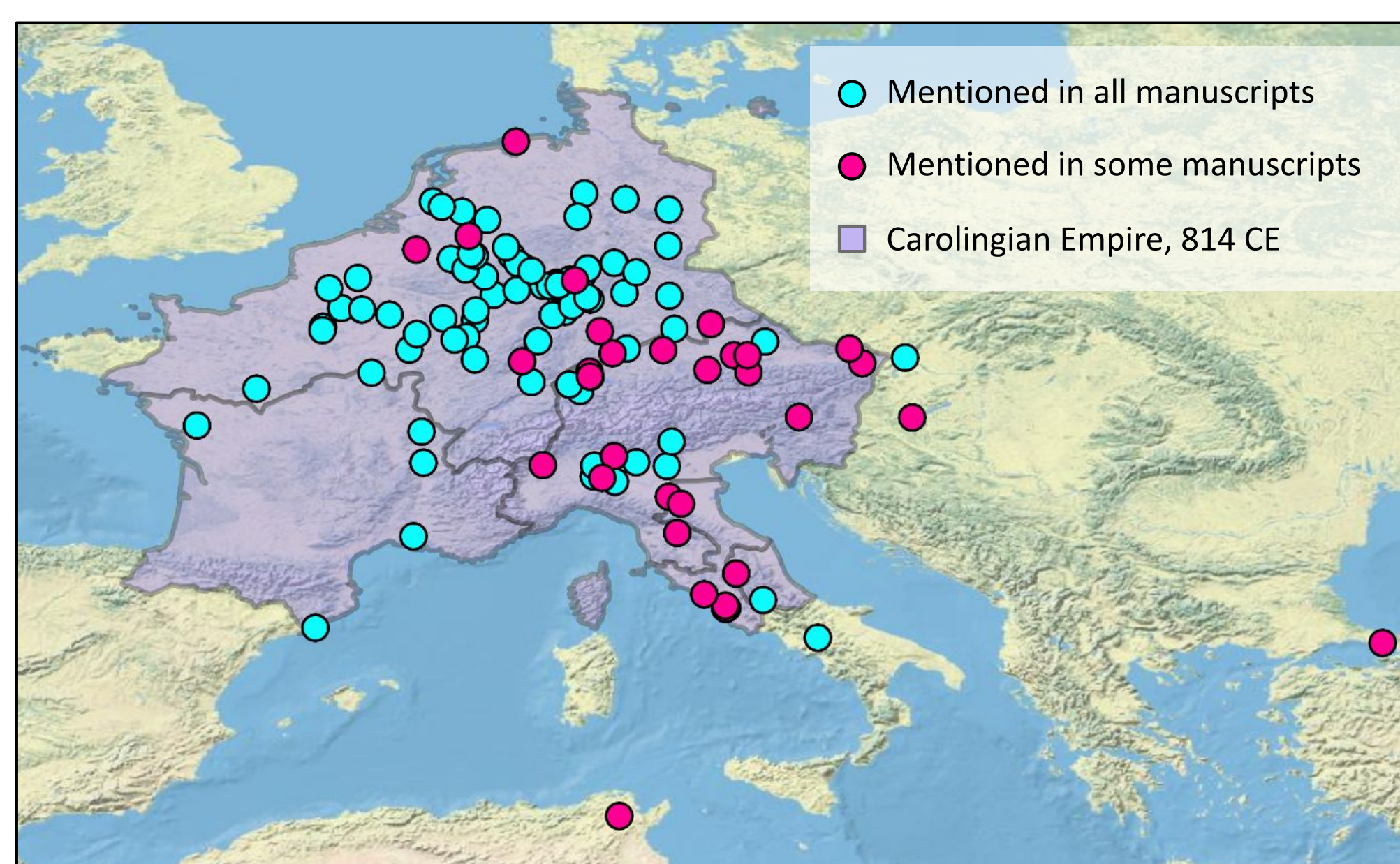


Fig. 1: Map of locations mentioned in the Annals of Fulda

Methodology

The Comparing Chronicles Project began by dividing each of the three manuscript groups, or versions, of the *Annals of Fulda* into short passages representing a single historical event using Nodegoat, an online platform for relational database management. Within the text, an event appears as a discrete narrative unit with a clear beginning and end. Consider the following example:

Charlemagne invaded Saxony, and then he defeated the Saxons in battle. The winter was long and bitter.

This entry contains three events:

1. Charlemagne invaded Saxony,
2. and then he defeated the Saxons in battle.
3. The winter was long and bitter.

Our methodology assumes that chroniclers first decided which events to include and only afterward determined the wording and details of their accounts. A passage in another manuscript, such as "A difficult winter occurred with many hardships," would therefore be linked to the same event object as "The winter was long and bitter." Distinguishing the shared event from its different textual representations allows us to separate decisions about **what** to record from decisions about **how** to describe it.

Each event was then assigned one or more of twelve types, such as "Birth/Death" or "Meeting," while each passage was tagged with the people and places it mentions. By summer 2026, this process had produced a complete dataset of the *Annals of Fulda*. This poster presents some of the first visualizations and evaluations generated from these data.

Graphing Chronicles

Our event-centered data model forms a knowledge graph linking chronicle passages, events, people, places, and manuscript groups. Events can be linked simultaneously to multiple passages, while each passage retains its own manuscript group, year, and position within the narrative. Shared events, omitted events, changes in emphasis, additions of detail, shifts in geography, and differences in narrative structure can therefore be represented as graph relationships rather than treated as problems of textual disagreement. The resulting network models not only the Carolingian world as described by the chronicles, but also how historical information was selected, transmitted, and transformed across chronicles.

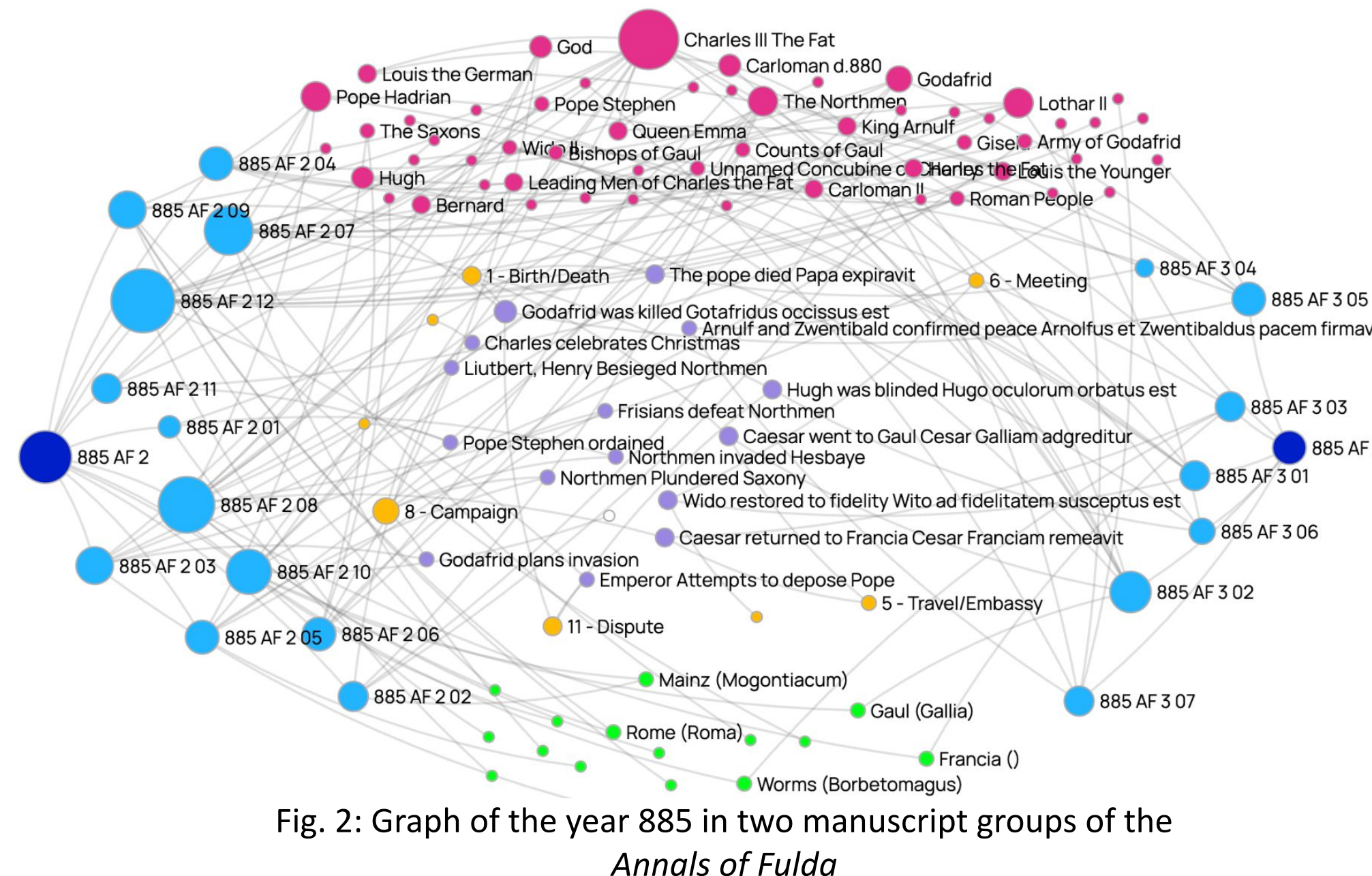


Fig. 2: Graph of the year 885 in two manuscript groups of the *Annals of Fulda*

Visualizing Overlap

Our event-centered data model makes it possible to visualize chronicles as transit maps. Each chronicle is drawn as a colored line that travels between passages, represented as stations. When two passages are determined to describe the same event, their lines intersect at a shared station. Because the method compares chronicles using different definitions of similarity, the same pair of chronicles can produce very different maps. The examples below compare two chronicles using three increasingly flexible approaches to passage pairing. As broader notions of similarity are used, the chronicles appear progressively more alike, revealing shared historical knowledge that would be obscured by textual comparison alone.

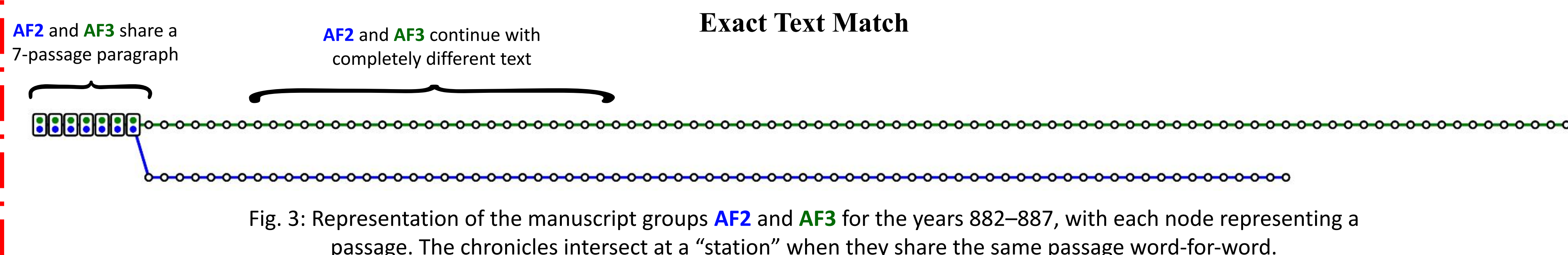


Fig. 3: Representation of the manuscript groups **AF2** and **AF3** for the years 882–887, with each node representing a passage. The chronicles intersect at a "station" when they share the same passage word-for-word.

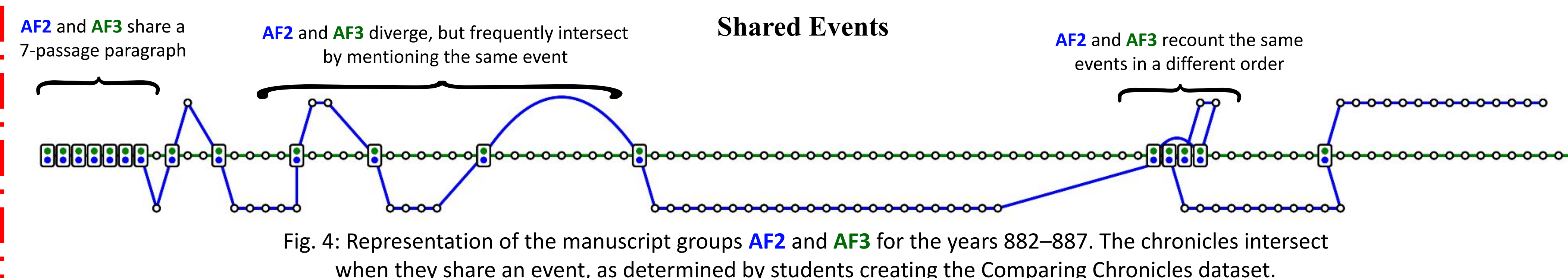


Fig. 4: Representation of the manuscript groups **AF2** and **AF3** for the years 882–887. The chronicles intersect when they share an event, as determined by students creating the Comparing Chronicles dataset.

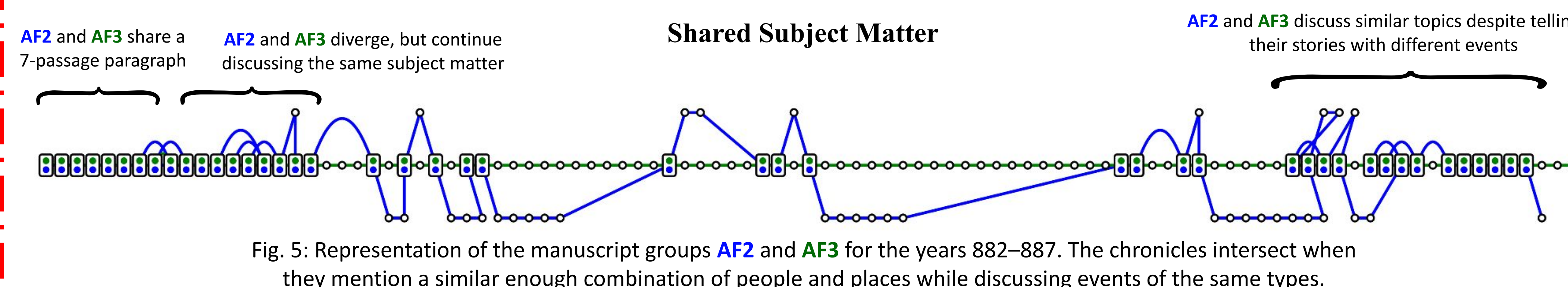


Fig. 5: Representation of the manuscript groups **AF2** and **AF3** for the years 882–887. The chronicles intersect when they mention a similar enough combination of people and places while discussing events of the same types.

Conclusion

Treating events rather than texts as the fundamental unit of analysis makes it possible to compare chronicles without privileging any one textual tradition. By preserving both shared events and their different textual representations, our model supports new visualizations and quantitative analyses of medieval historiography.

As additional Carolingian chronicles are incorporated into the dataset, these methods can be used to study larger networks of historical knowledge and evaluate existing hypotheses about relationships among medieval chronicles. The resulting data also provide a valuable resource for developing artificial intelligence capable of dividing and matching events according to our methodology. In the longer term, these methods may be extended to chronicles from other periods and languages or adapted to other genres of historical writing.

Acknowledgements

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References

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