

## Course: Introduction of Data Science

**Code:** US01

**Title:** GEPHI- Game of Throne

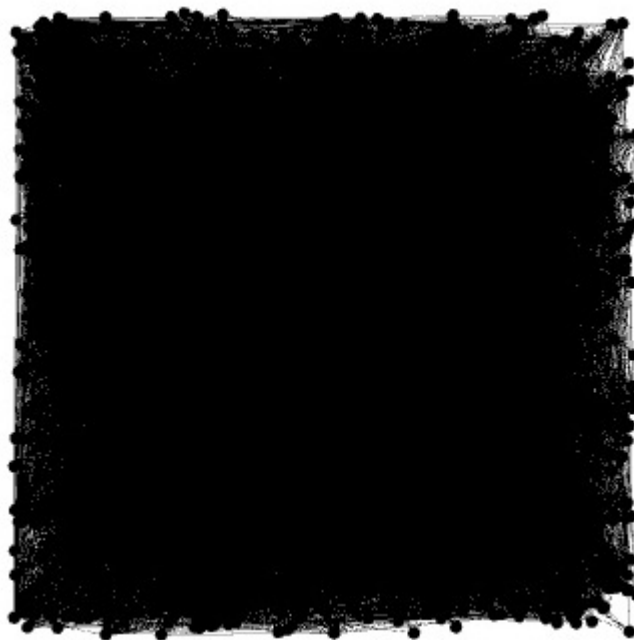
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### Background of Gephi

Gephi is initially developed by students in University of Technology of Compiègne (UTC), in France. The development of future releases of Gephi is supported by The Gephi Consortium, a French non-profit corporation created in 2010.

### Introduction

Gephi is used in this class to do network analysis and visualization of the characters in Game of Throne. A data set (gexf file) is provided during the class. The objective of this course is to create a graph representing the relation or interaction between characters in Game of Throne by using Gephi.



*Figure 1: The initial data set provided in class*

Figure 1 above shows the data set provided during the class. Due to the complex network and hundreds of characters, the interaction between characters is represented by a 'black box'. In order to make the graphic becomes more visible, firstly, the modularity in statistic is modified and colour is added so that each interaction in between characters could be identify easily.

The data is then filtered by using topology. The degree of range is adjusted in the setting from "2- 578" to "307-578".

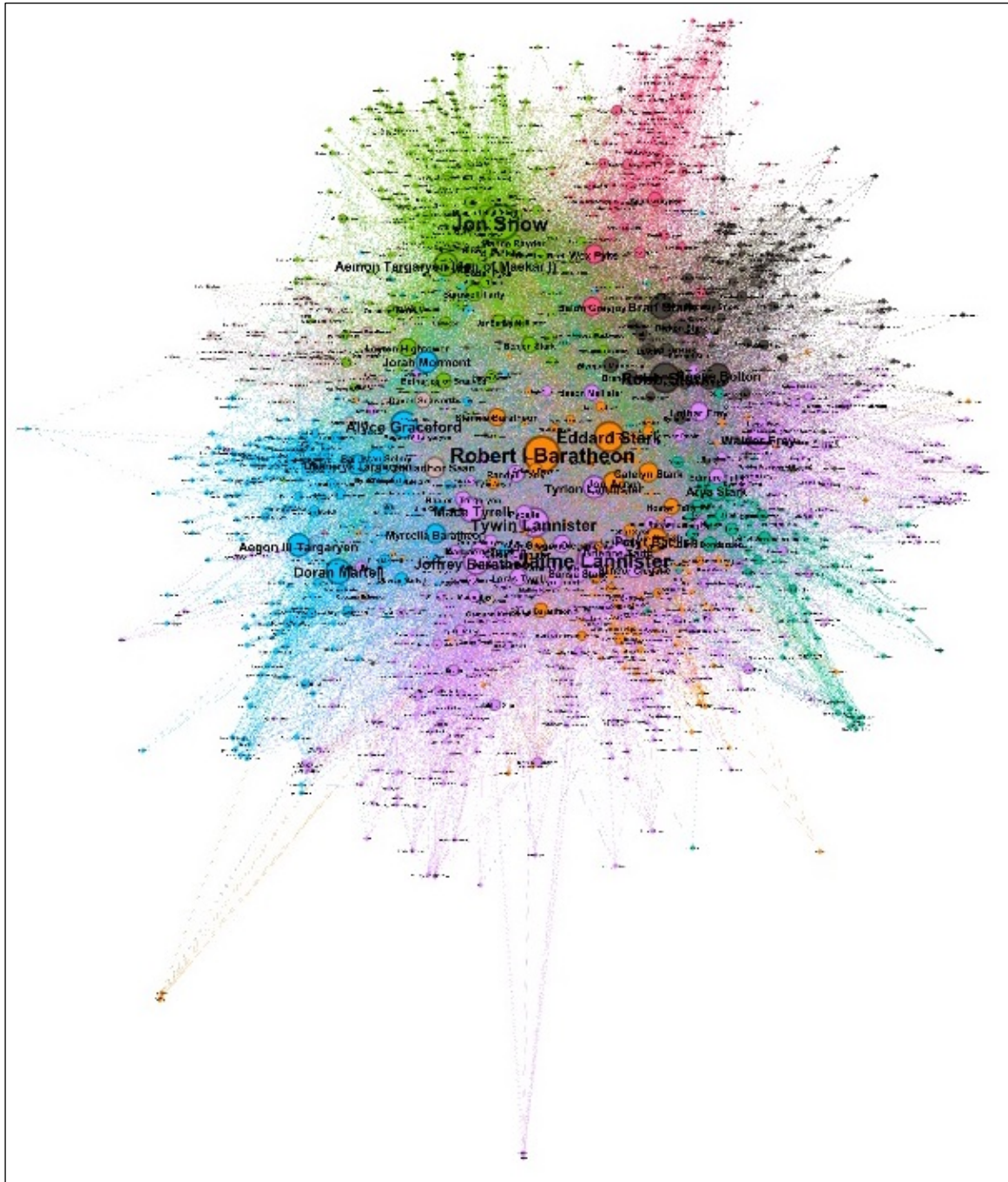


Figure 2: The graphic with degree range of 2-578

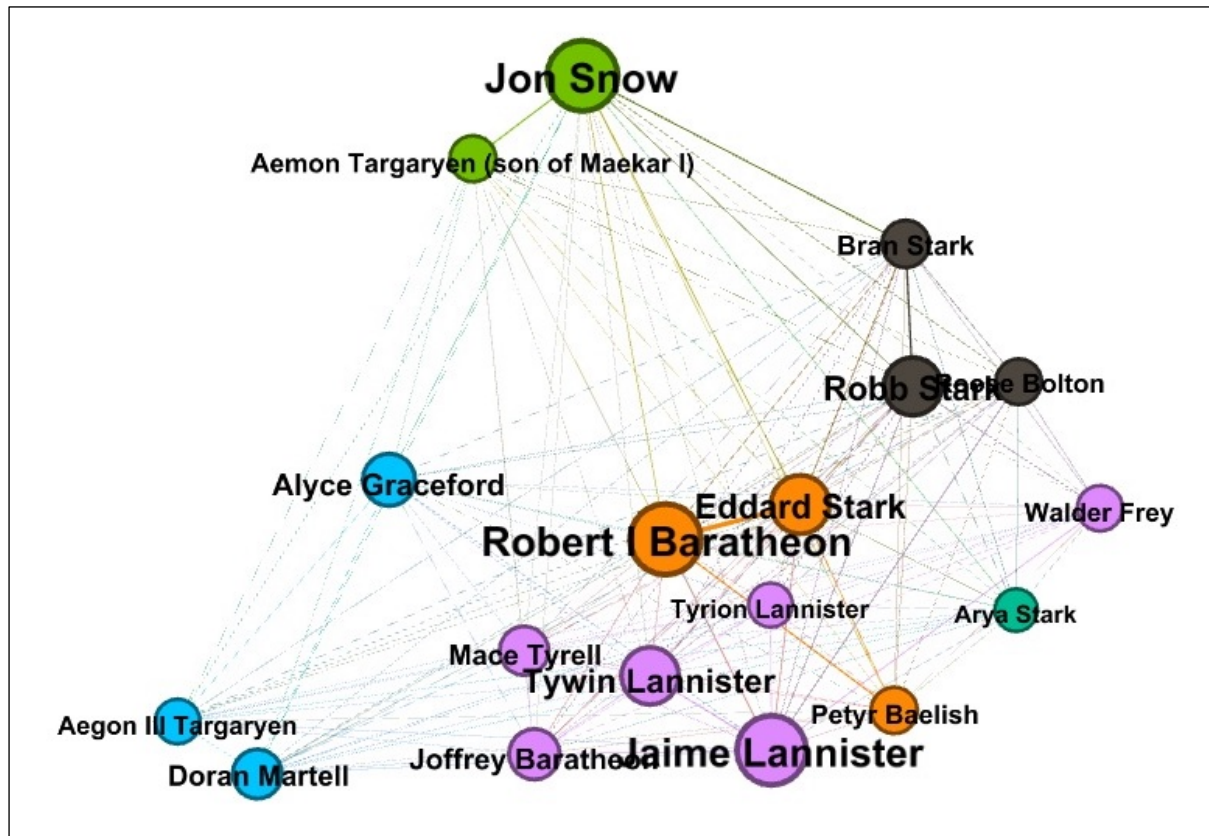


Figure 3 : The graphic with degree range of 307-578

As shown in Figure 3 above, when the degree range is reduced to 307-578, which means only the characters which have at least 307 interactions with others will be shown in the graphic. The representation of interaction between characters becomes more visible and easy to analyse.

### Conclusion

Gephi is powerful and useful software in network analysis within a community where many of its developers are involved, for example in history, literature, political sciences and etc.