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ANALYZING ELITES NETWORKS IN ANCIENT EGYPT

THINKING ABOUT METHODOLOGICAL SOLUTIONS

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HISOMA - HISTOIRE ET SOURCES DES MONDES ANTIQUES

This poster aims at presenting methodological issues when attempting to study Ancient Egyptian society using social network analysis methods. This presentation develops a case study: a group statue representing twenty-five male and female characters of the reign of Ramesses II (13th century BC).



Figure 1. The group statue of Imenemet, «Chief of police». Museo Archeologico Nazionale di Napoli, inv. 1069.

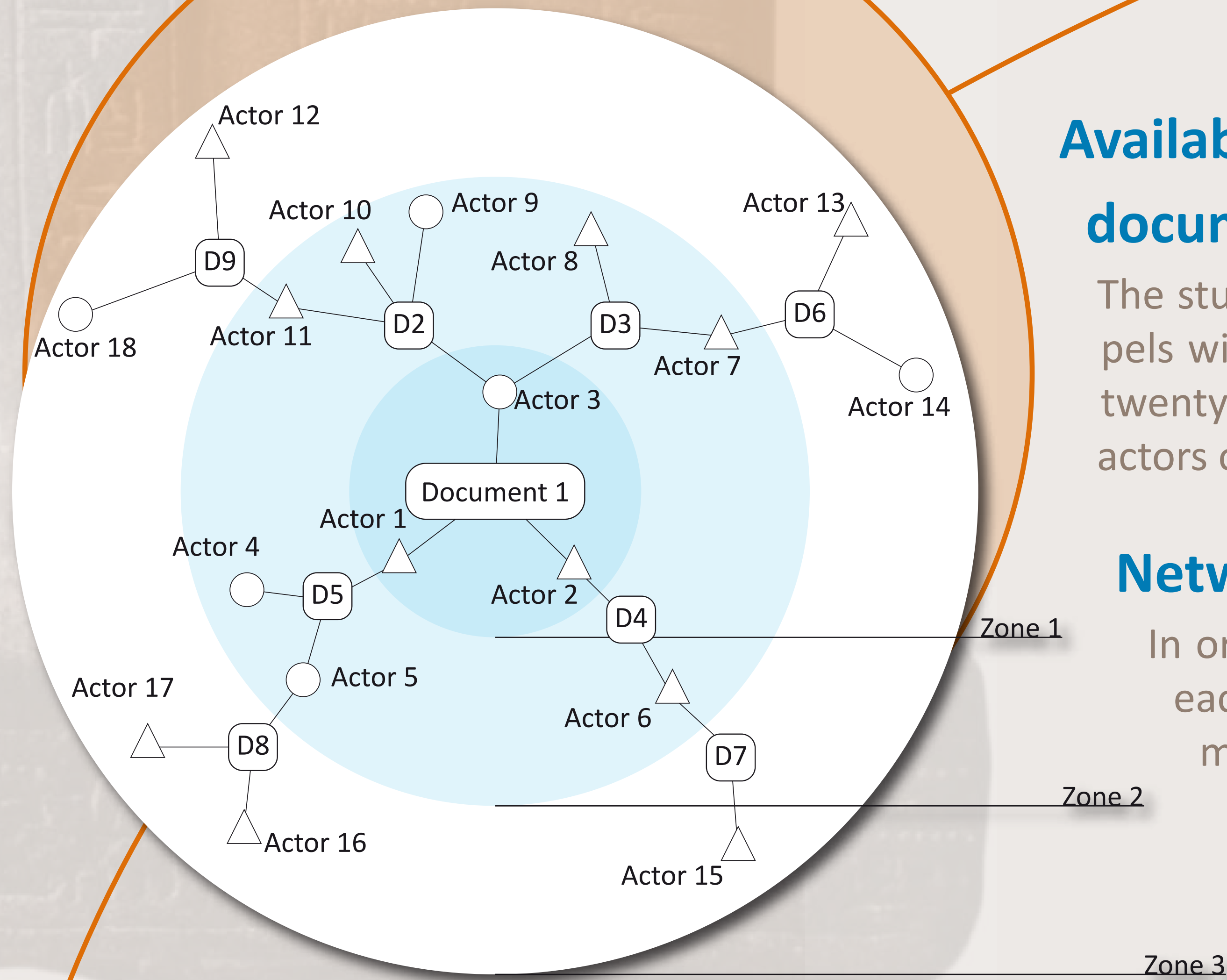


Figure 2. Schema of the «snowball» sampling method

Available documentation

The study relies on different types of documents: stelae, inscribed statues or funerary chapels with biographical inscriptions, etc. In our case study (Figure 1), Imenemet mentions twenty-four individuals among his relatives. This document presents many very powerful actors of Ramesses II's reign, linked by kinship terms.

Network boundaries: the «snowball» sampling method

In order to build networks, we use the «snowball» sampling method (Figure 2): *i. e.* for each character represented in a document - **zone 1** -, we look for every other document mentioning him/her, and for each of these documents, we have registered every individual represented - **zone 2**. We repeat this operation once to reach the last zone - **zone 3**.

Three reasons not to go further: 1. only scanty documents allow us to go beyond the third zone; 2. we consider individuals from the first zone are not so close to those of the third zone; If we went further we would fall on abstraction.

For the statue-group Naples 1069, this method allows us to extend the Imenemet's network from 25 individuals in the only zone 1 to 81 in the zone 3.

Scholars need pay particular attention on the way documents are assigned to one individual. Homonymy is the biggest trap. Concerning Ancient Egypt, it is mostly important to understand that the first-born often inherited the name and the titles from his paternal grandfather. That can be a cause of muddle and anachronism. We have to compile the biggest number of sources as possible: that is the historian's job.

1-mode and 2-mode networks

The method presented here aims at studying individuals' relationships by using 2-mode (bipartite) networks. In this case, «document» is the first type of nodes, «individual» the second. Accordingly this method is more accurate, as sometimes documents do not quote any link between people. Moreover, relationship terms are often ambiguous.

For example, the Egyptian word «sn», which can be translated by «brother», does not ever link biological brothers. The same word might even link cousins, an uncle and his nephew, close friends, colleagues, etc.

Also, what only undoubtedly links individuals are documents where they are depicted together.

The next step in to convert the 2-mode network in 1-mode is the next step which seems to be the most readable graph (Figure 3).

Then, in this 1-mode network, a character is linked to another if both appear in the same document.

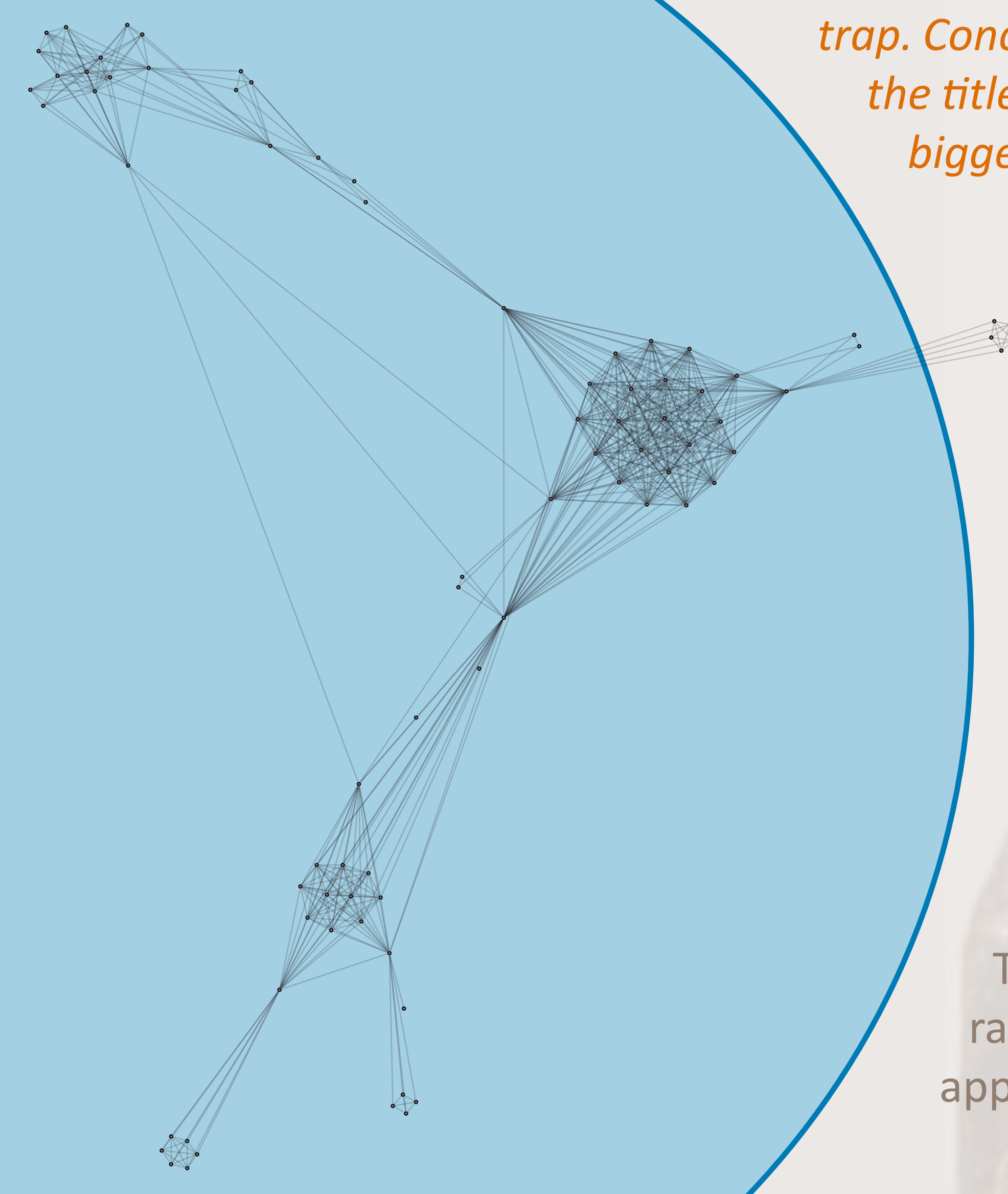
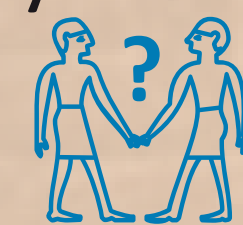


Figure 3. 1-mode graph of the extended network of Naples 1069. (Each edge represents an individual, connected by documents)

Remaining issues

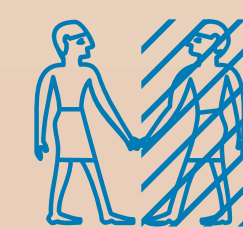
Some issues are still open, mainly due to the geographical and chronological gap between us and Ancient Egyptians.

That is why we have to be very careful with data, and compile them wisely.



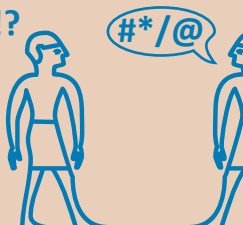
Reciprocity of mentioned links

It is hard to know if mentioned links in documents are reciprocal. That would be the case if someone presented famous people on his own monuments.



Incompleteness of documents

Most of the networks remain incomplete due to the badly preserved documents.



Linguistic and cultural gap

The linguistic and cultural gap between scholars and the ancient Egyptian society is still the biggest problem, not only in network studies. This causes much of misinterpretation. Our example on the term «sn» shows that cultural context is mostly important.

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