Graph partitioning as a data mining task continues to become far more important than ever before. In an increasingly data-driven world, partitioning networks is a vital component to the realms of interpreting online social networks, biological networks, computer networks, and many others. However, many existing partitioning algorithms are unable to run at the scale of large sizes of modern network datasets. Additionally, for the few algorithms that are computationally efficient enough to partition large graphs, the proficiencies of these algorithms are limited by the inability to observe communities within a graph on a global level. Our aim is to develop an algorithm that is not only scalable enough to meet the demands of massive network sizes, but also defines a way to observe networks globally when considering partitions within those networks.

Image from: http://gael-varoquaux.info/programming/minimum-spanning-tree.html