

## 7. Outlook and Future Work

Some of the more interesting questions regarding CrossTalk and which are worth investigating as part of future work are described in this chapter. Amongst the most interesting questions would be in-network aggregation of global view data. For certain types of data it might not be necessary or interesting to keep samples inside the global view but try to achieve some in-network aggregation so that the received piggybacked data is already a representation of the network-wide view. This would save some memory which would be in particular interesting for resource constrained devices such as sensor nodes.

A highly interesting and novel aspect concerning the global view data CrossTalk provides would be to investigate if this data can be used to predict future network situations. For example, from the changing neighbor degree data it can be concluded whether a network will become very sparse, probably too sparse and replication of data and service migration can be triggered before a network breaks apart.

Another research direction would concern security. Obviously, without security mechanisms malicious nodes could try to influence other nodes global view to make a network dysfunctional. Proper countermeasures must be developed to prevent malicious nodes from doing such things.

Having introduced some exemplary application it would be interesting to identify and analyze more application domains such as energy conservation, localization, medium access, end-to-end delay improvements and higher layer application issues such as data replication and service location.