Appendix 2 Glossary

The following definitions are taken from:

unless otherwise noted.

- **Weakly Connected**
  - A directed graph is said to be *weakly connected* if its underlying undirected graph is *connected*.
- **Connected**
  - An undirected graph is said to be *connected* "if there exists a walk between every pair of its vertices."
- **Mutually Reachable**
  - "Let \(u\) and \(v\) be vertices in a digraph \(G\). Then \(u\) and \(v\) are said to be mutually reachable in \(G\) if \(G\) contains both a directed \(u\) - \(v\) walk and a directed \(v\) - \(u\) walk. Every vertex is regarded as reachable from itself (by the trivial walk)."
- **Strongly Connected**
  - "A digraph is *strongly connected* if every two vertices are mutually reachable.
- **Strong Component**
  - "A strong component of a digraph \(G\) is a maximal strongly connected subgraph of \(G\). Equivalently, a strong component is a subdigraph induced on a maximal set of mutually reachable vertices."
- **Component**
  - "The subgraphs of \(G\) which are maximal with respect to the property of being connected are called the components of \(G\)."
- **Graph Density**
  - "The density of a graph is the ratio of the number of edges and the number of possible edges." (from igraph library documentation)