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Broadcasting in NetworkX

Broadcasting is an information disseminating problem in a connected network of transmitting a message from an originator vertex to all other vertices as quickly as possible. It is well known that finding the broadcast time for any random vertex in an arbitrary graph is NP-complete. However, it has been proven that this problem can be solved in polynomial time for a certain class of graphs. The dissemination process is as follows; the originator begins by placing a series of calls along the communication lines of the network. Every time the informed nodes help the originator in distributing the message. Every call is assumed to take place in discrete units of time. The broadcasting must be completed as quickly as possible subject to some constraints. This talk will demonstrate implementations of a broadcasting algorithm using the open-source graph library NetworkX. In addition, other related topics such as broadcast graphs and the design of efficient networks will be covered.