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There are networks in almost every part of our lives: the Internet, the power grid, the road network, networks of friendship or acquaintance, ecological networks, biochemical networks, and many others. As large-scale data on these networks have become available in the last few years, a new science of networks has grown up combining observations and theory to shed light on systems ranging from bacteria to the whole of human society. The field has borrowed heavily from physics and this talk will give a physicist's overview of some of the most important discoveries, how those discoveries were made, and what they can tell us about the way the world works.