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Dots and lines: from Trump to Harry Potter to Bitcoin

Our world is made up of dots and lines. Networks, or graphs as they are also called, are mathematical objects that quantify how systems interact. From protein networks in living cells, to bitcoin transactions, to keywords in Donald Trump's tweets, networks reside in every aspect of our lives and nature.

Although networks are everywhere, many are invisible. Mathematicians and data scientists are only beginning to reveal these hidden networks and unlock their secrets. We give a guided tour of the modern field of network science, with insights along the way into what makes networks tick.