environmental and evolutionary factors determining whether the innermost regions of an AGN can be seen directly. This does not undermine the basic model in which type 2 Seyferts are obscured by type 1 Seyferts, but it does show that environmental and evolutionary factors need to be included in the picture. All of this gives important clues about how interactions between galaxies fuel nuclear activity. ❐

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Published online: 11 May 2014

NETWORKS

Improve your virality

Messages or videos posted on the internet can attract a lot of attention by being 'liked', tweeted, blogged and e-mailed. But how do things go viral?

Understanding information transfer in the real world is far from trivial. One has to consider not just how information disperses through a complex network, but also how it spreads between many different networks, all of which are intertwined. Take social media, for example. Facebook, Twitter and Instagram — to name just a few — could all be thought of as separate networks, but in reality they're all intimately linked, simply by virtue of the fact that they share common users. How, then, does information diffuse through this network of networks? Conceiving the problem as a single multilayered network (in which each layer represents a different social network), Filippo Radicchi has shown that information transfer in this complex system is directed by the correlation between connections in the different layers (*Phys. Rev. X* **4,** 021014; 2014).

Radicchi looked at two interconnected network layers with randomly placed lateral (intralayer) and vertical (interlayer) connections. He explored the diffusion processes for different relationships between the number of neighbours that a node has within a network and the number of neighbours that it has in the other network. Perhaps counterintuitively, he found that a strong correlation between lateral and vertical connections does not make diffusion across the whole system more efficient. Instead, information spreads faster in the opposite case: when, for example, abundant connections in one layer corresponds to sparse connections in the other.

This suggests that if a strong correlation existed between, say, the Twitter and Instagram networks such that users had similar followings in both, then it would be more probable for information to travel either within one network or between the two. If, however, there was an inverse correlation — an often-followed Twitter user gaining little or no traction on Instagram — information could spread simultaneously between and within both networks.

Quite apart from revealing how to become the next internet sensation, this study has implications for many other interconnected systems. It suggests a simple design principle for inducing rapid diffusion through a multilayered network: make lateral hubs distinct from vertical hubs. On the other hand, if it's containment you're after, it pays to build strong correlations between connections in different layers.

LUKE FLEET