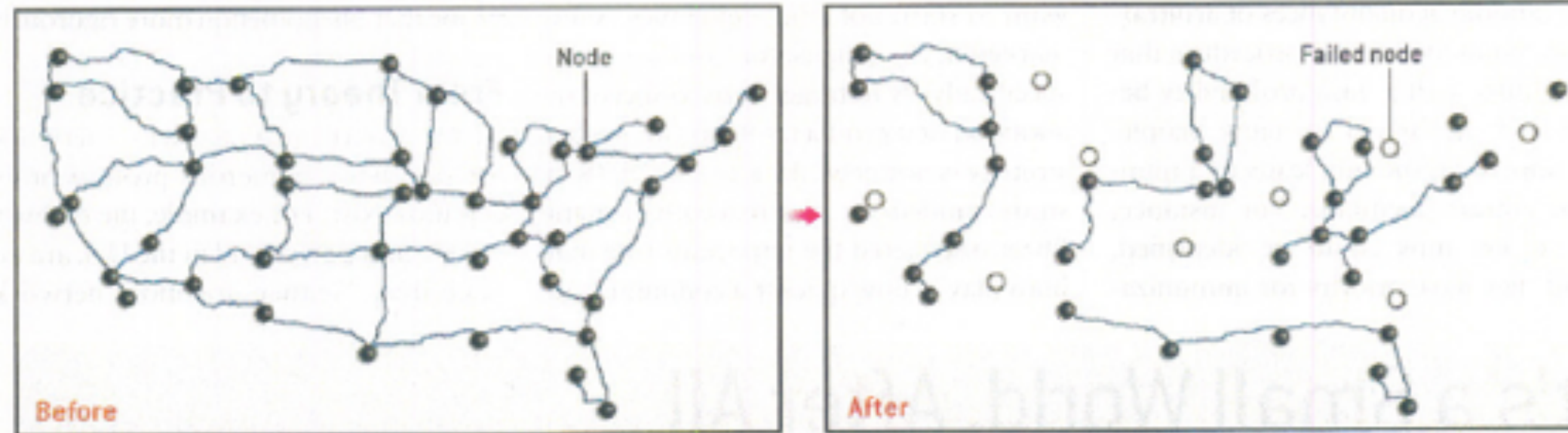
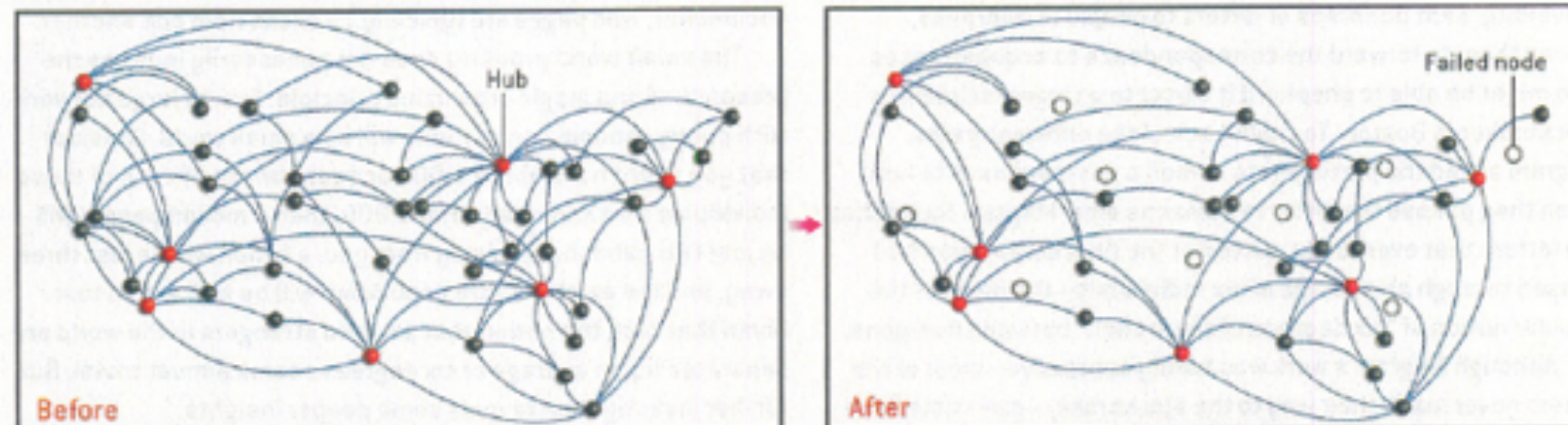


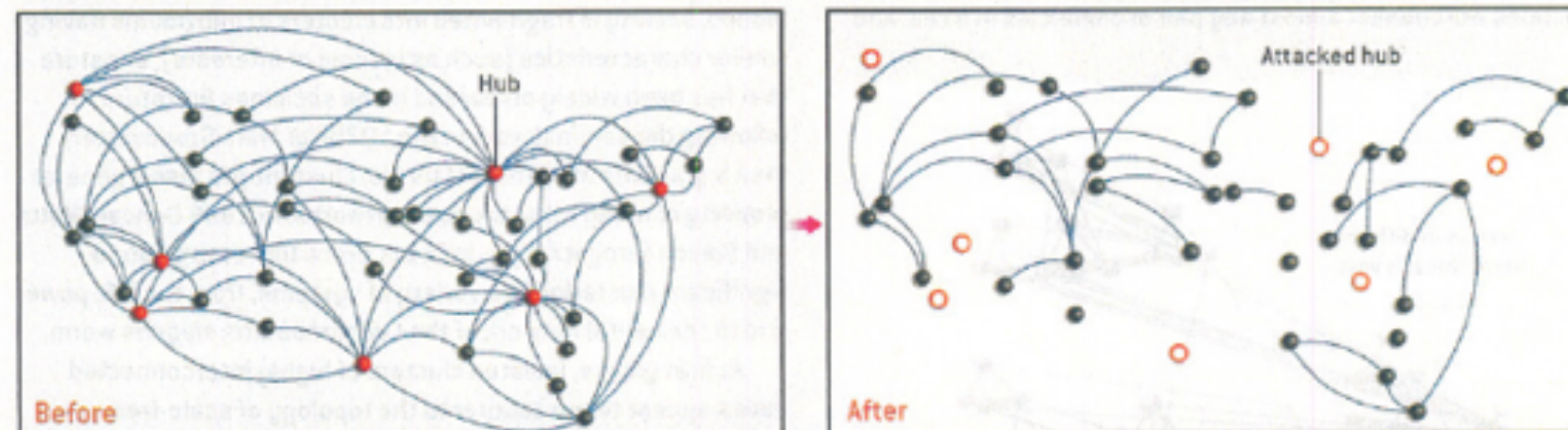
Random Network, Accidental Node Failure



Scale-Free Network, Accidental Node Failure



Scale-Free Network, Attack on Hubs



Scale free networks
are resilient to
random attacks on
nodes or node
failures

(cf. internet on 9/11)

when more hub nodes
fail though....

targeted attack!

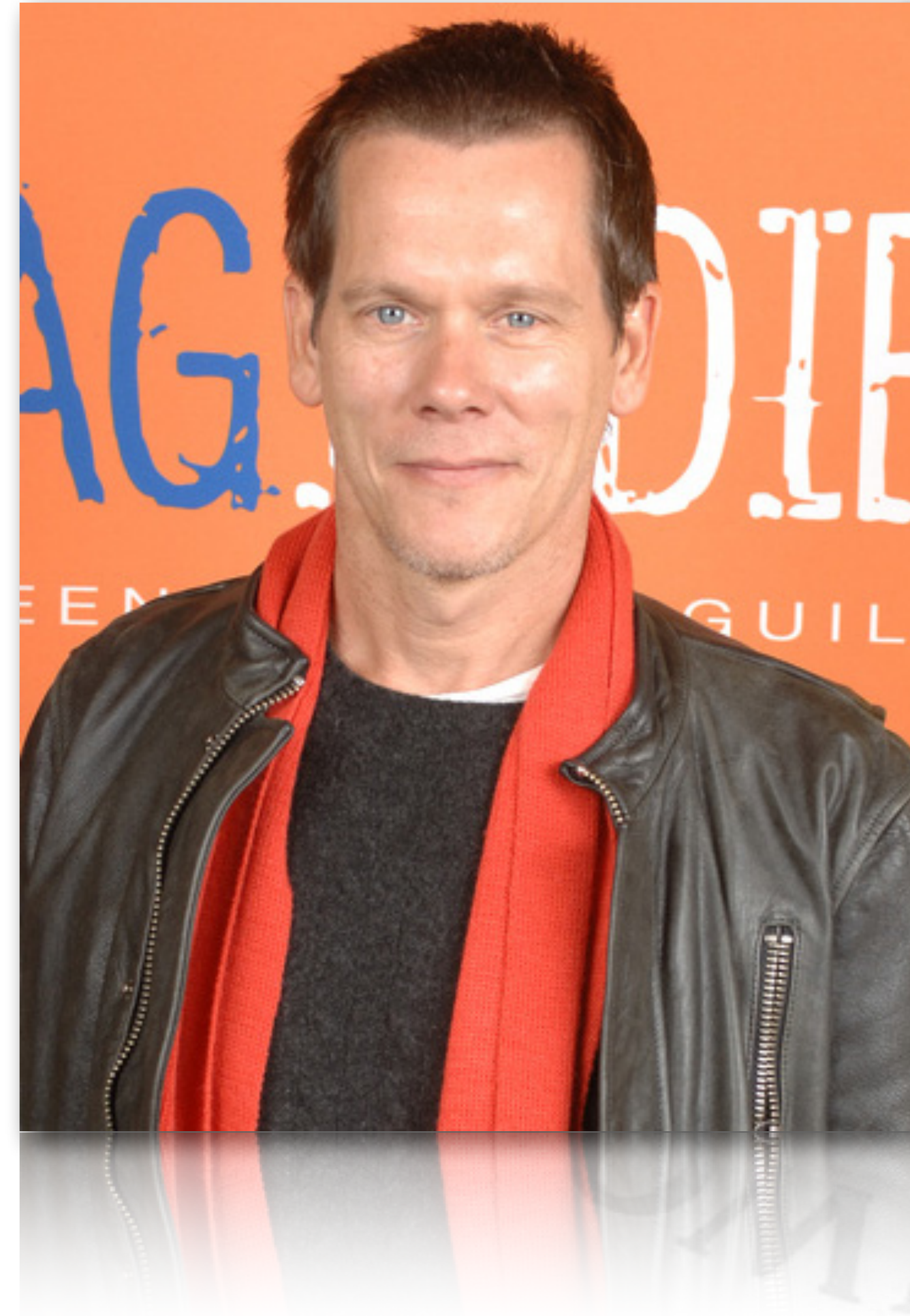
Effectiveness / Connectivity: 6 degrees of separation

Kevin Bacon number (Erdős number)

- Node degree
- Degree distribution
- Assortativity
- Clustering coefficient
- Motifs
- Path length
- Path efficiency
- Connection density or cost
- Hubs
- Centrality
- Robustness
- Modularity

Degree of separation
(from Kevin Bacon)

‘6 degrees of separation’



http://en.wikipedia.org/wiki/Bacon_number#Bacon_numbers