

Talent support networks

The art of networking: an introduction

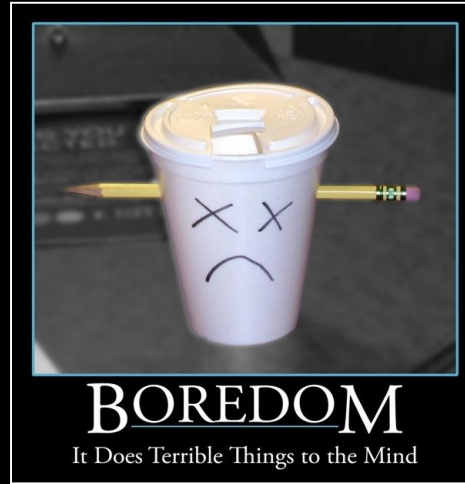
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Humans are networking animals



10 minutes of meditation: NOT! electric shock

Science 345:75

men: 67%

women: 25%



The art of networking

Novelty seeking (exploration)

**(seek the opinion leader,
seek the strange, seek openness,
jump to the next group)**

Safety seeking (optimization)

novelty seeking needs a safe environment

What do complex systems do if they experience danger? (1. What we know)



They develop strong
group-cohesion
= **efficiency** increase

Mihalik and Csermely
PLoS Comput. Biol. 7, e1002187

What do complex systems do if they experience danger? (2. What we do NOT know)

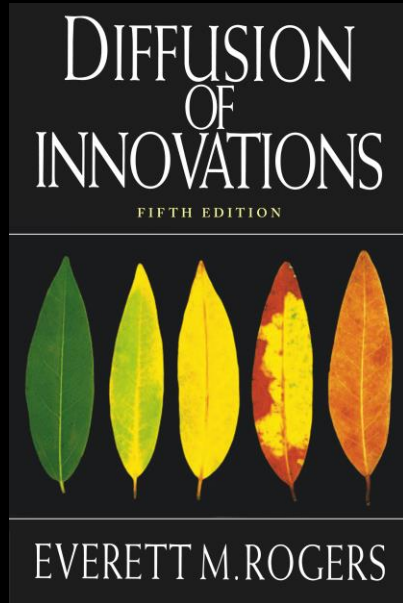


They develop bridges
between distant groups
= **chance of novel solutions**

Mihalik and Csermely
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The benefits of bridging distant groups

1. Innovator position



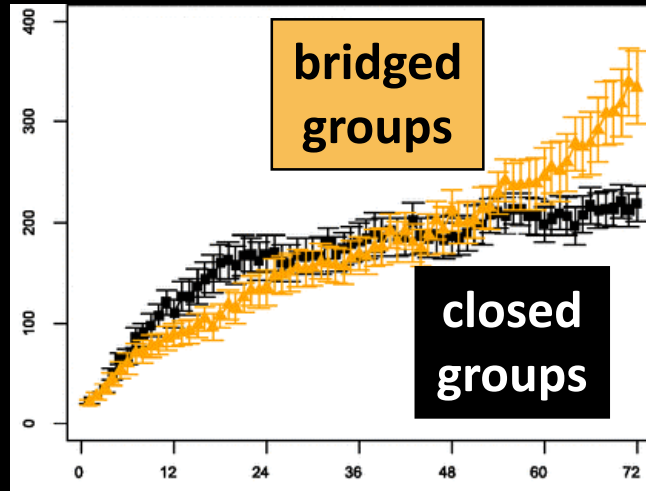
**innovators connect
early adopter hubs**

**bridges are
not bound by
social norms**

The benefits of bridging distant groups

2. The importance of dynamic changes

complexity
of innovation



bridged groups reached
more original innovations

closed groups found
trivial solutions faster

number of trials

PNAS 113:2982

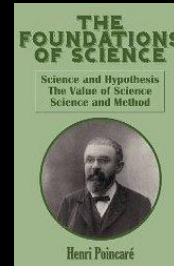
The benefits of bridging distant groups

3. Emergence of creative ideas



Henry Poincaré, 1908

” ... To create consists in not making useless combinations. Among chosen combinations the most fertile will often be those formed of elements drawn from domains which are far apart.”

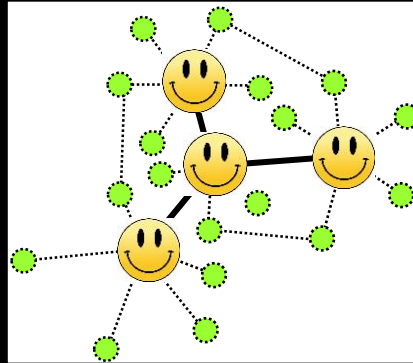


Creative responses to unknown situations need distant bridges



usual
situation

opinion-leaders
agree

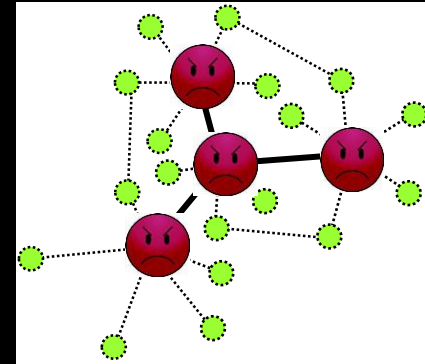


fast and
strong
response



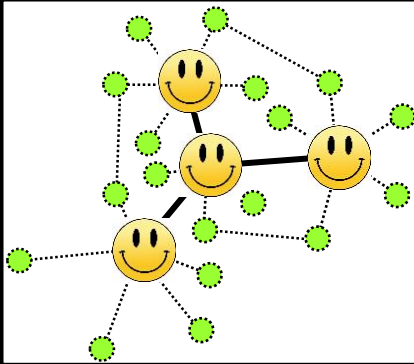
unusual
situation

opinion-leaders
disagree



slow (*democratic*) response
mobilizing the knowledge
of the whole community

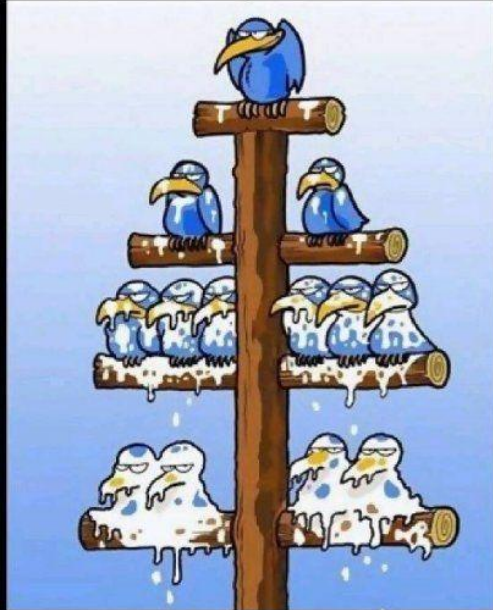
Opinion-leaders form a densely connected core of complex networks



conflicts of network core are mediated by inter-hub bridges in Twitter, phone networks and fish schools

PNAS 112:4690; Nature 524:65

innovative bridges enter the core when a response is encoded by a complex network



Successful networkers play 'minority game'

- build horizontal contacts
- **in hierarchy/core dominance**
- build hierarchy/network core
- **in chaos**



Integration



**In the end it is not the years in your life what count.
It is the Life in your years. (*Abraham Lincoln*)**