



Networks of Networks:

Building Coalitions to Co-Create the Future

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Nothing Is Intractable.



Today we will explore . . .

- ▶ WHAT kinds of networks are possible?
- ▶ SO WHAT conditions determine structured networks?
- ▶ NOW WHAT can you do to build coalitions and co-create the future?



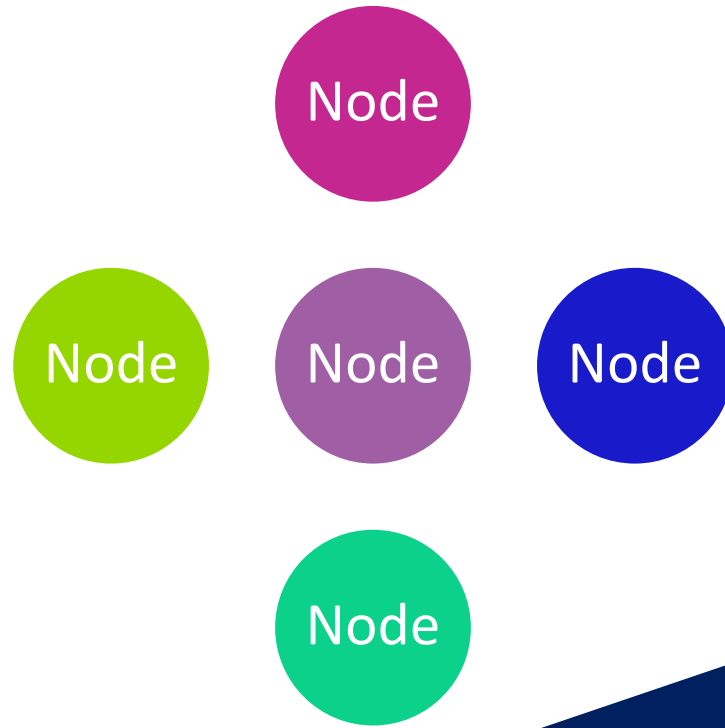


What kinds of networks are possible?



Network

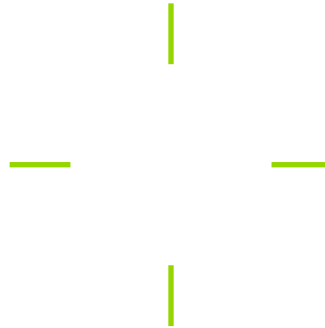
► Nodes





Network

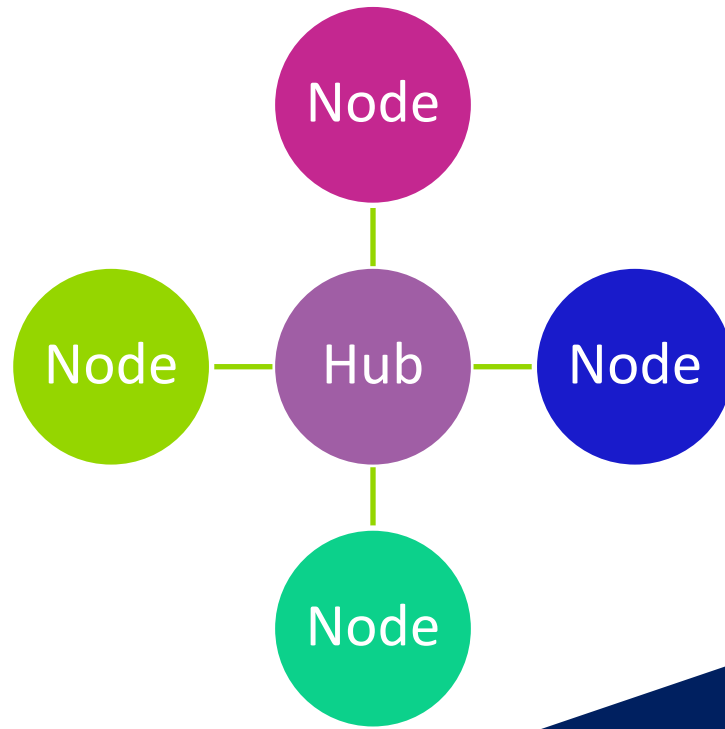
- ▶ Nodes
- ▶ Links





Network

- ▶ Nodes
- ▶ Links
- ▶ Hubs





Scale-free

Structured Networks



Small World



Structured Network



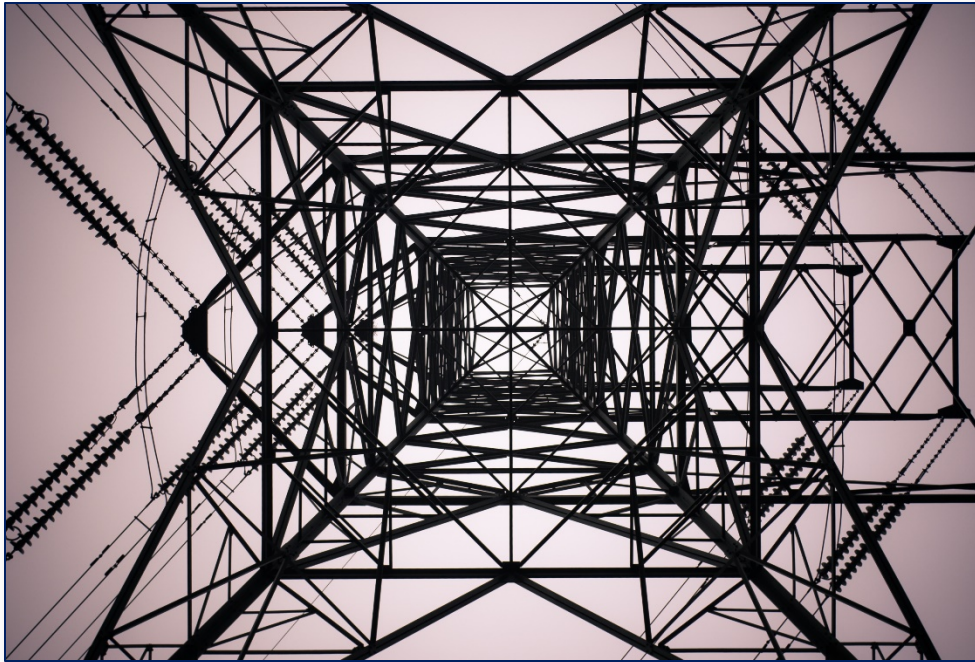
Structured Network



Structured Network



Structured Network



Structured Network



Multi-Layer Network



Emergent Network



Same and Different

Structured	Emergent
Defined boundary	Indeterminant boundary
Known nodes	Relevant nodes
Constant links	Changing links
Persistent hubs	Emergent hubs
Imposed design	Self-organizing design
Predictable connectors	Surprising connectors
And ...	And ...

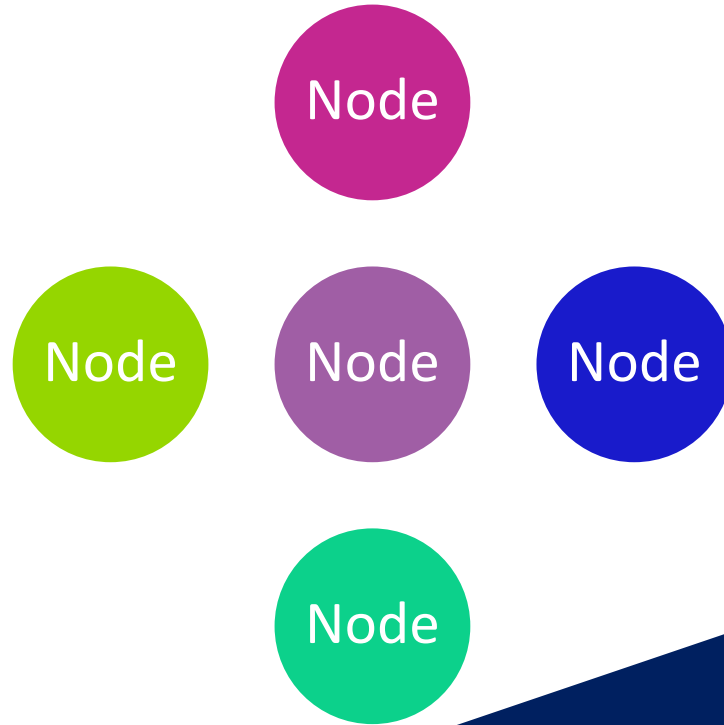


So What conditions determine structured networks ?



Nodes

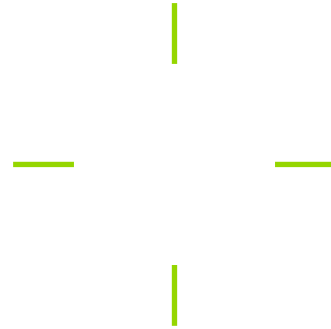
- ▶ How many?
- ▶ How similar?
- ▶ How different?
- ▶ How often added or removed?





Links

- ▶ How many?
- ▶ How similar or different?
- ▶ How tight or loose?
- ▶ One-way or two-way?
- ▶ How often added, removed, or changed?





Network Measures

- ▶ Degree—number of links for a node

How connected are the people in the network?
Are there ones that are much more or less connected?
How much energy do nodes use to stay connected?
Many connections > security and exhaustion
Few connections > innovation and isolation



Network Measures

- ▶ Degree—number of links for a node
- ▶ Strength—sum of the weights of links connected to a node

What is the power of each connection?
How much energy does it take to sustain one connection?
Are the heavy and light connections balanced?
Lots of heavy connections > stability and lock-in
Few heavy connections > efficiency and dissipation



Network Measures

- ▶ Degree—number of links for a node
- ▶ Strength—sum of the weights of links connected to a node
- ▶ Density—percentage of possible links currently connected

How well connected are the nodes (on average)?
Are most near the average or far from it?
High density > sustainability and self-involvement
Low density > agility and fragility



NOW WHAT can you do to build
coalitions and co-create the future?



Your Networks of Networks

		Emergent	Structured	
# Nodes	# Links	# Hubs		
What kind of network?	Hub & Spoke	Random	Scale-Free	Small World
Nodes	Low	High		
Links	Low	High		
Degree	Low	High		
Strength	Low	High		
Density	Low	High		
What will make it more fit for function?				



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*Thank
You!*