

Network Science Taster Session

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Why Networks?

NEWS IN BRIEF

Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline

11/23/15 8:45am • SEE MORE: LOCAL ▾



<https://local.theonion.com/sudden-death-of-aunt-creates-rupture-in-family-gossip-p-1819578447>

Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline

VIRGINIA BEACH, VA—Grieving family members of local aunt Laurie Shelton confirmed Monday that the 48-year-old woman's unexpected death had caused a major breach in their gossip pipeline, suddenly disrupting access to the latest dirt on all their relatives. “Since Aunt Laurie passed, news about how Stephanie’s new boyfriend can’t hold down a job and updates on Uncle Jeff’s gambling habit have slowed to a trickle,” said Shelton’s niece Arielle, mourning the loss of a woman who for years had reportedly ensured a steady stream of the juiciest tidbits about relatives’ layoffs, unplanned pregnancies, personal bankruptcies, and misdemeanor shoplifting charges. “All the best gossip flowed through her, and now she’s gone. For all I know, the twins in North Carolina could have been caught smoking pot, Grandma could be back together with Leon, and Uncle Mike could be considering a vasectomy. It’s a devastating loss for the whole family.” Several in the family expressed hope that, for the time being, a sufficient supply of idle chatter could be rerouted through Cousin Staci to meet their immediate needs.

Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline

What happened?

Why did it happen?

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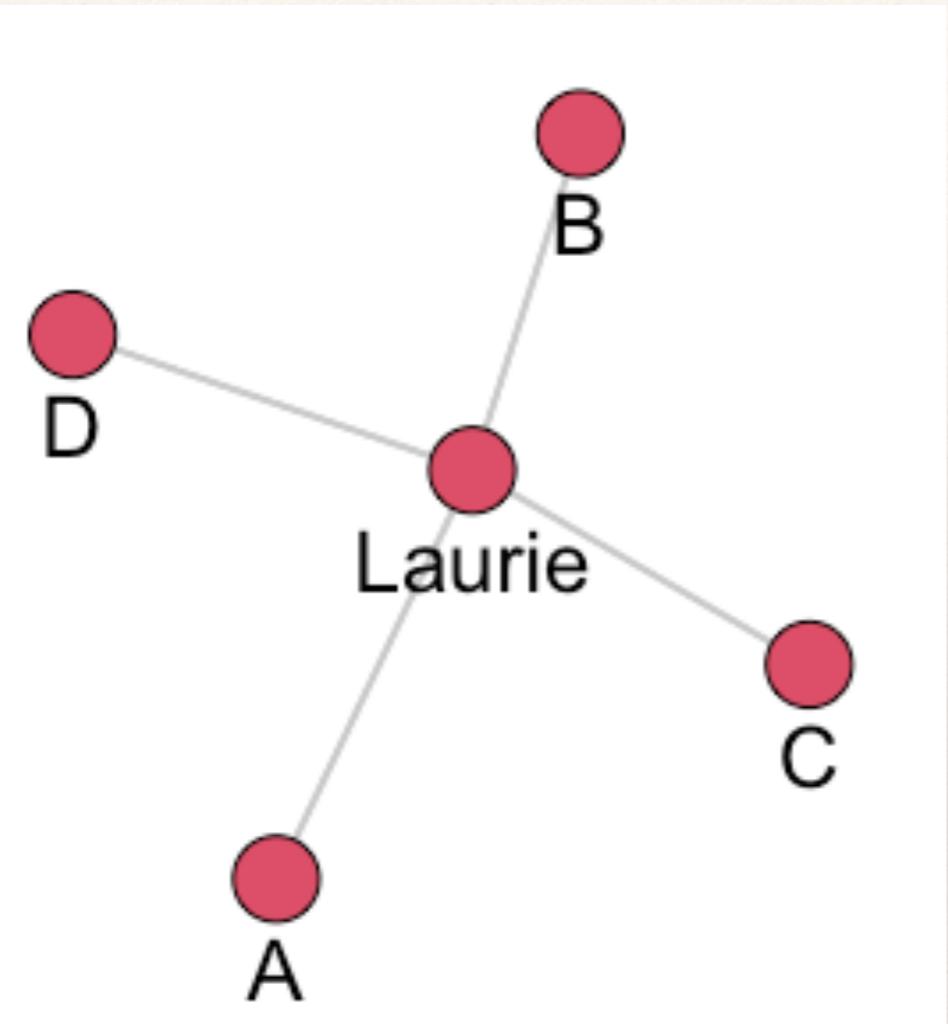
Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline

The Shelton family experienced a network intervention

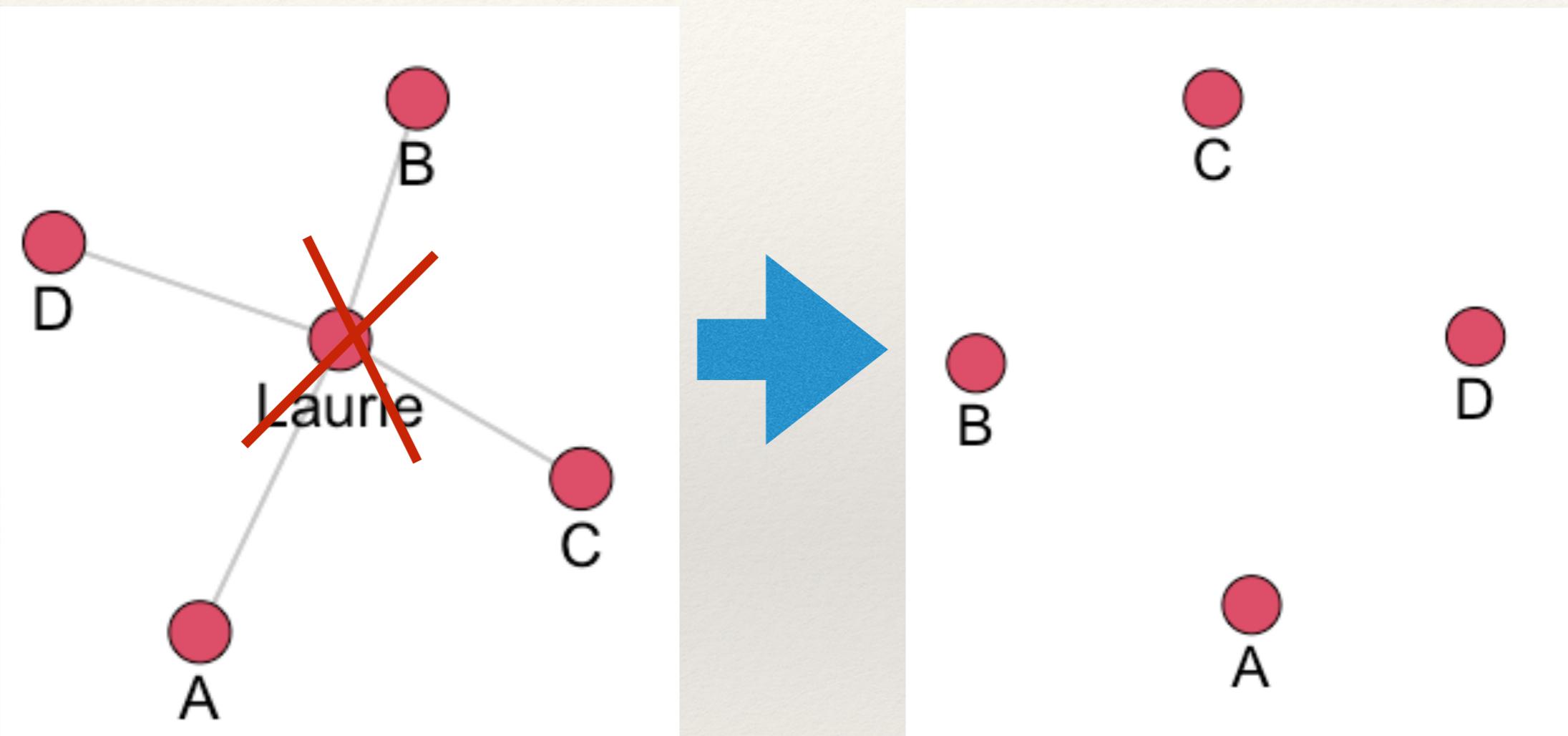
(A change in the network)

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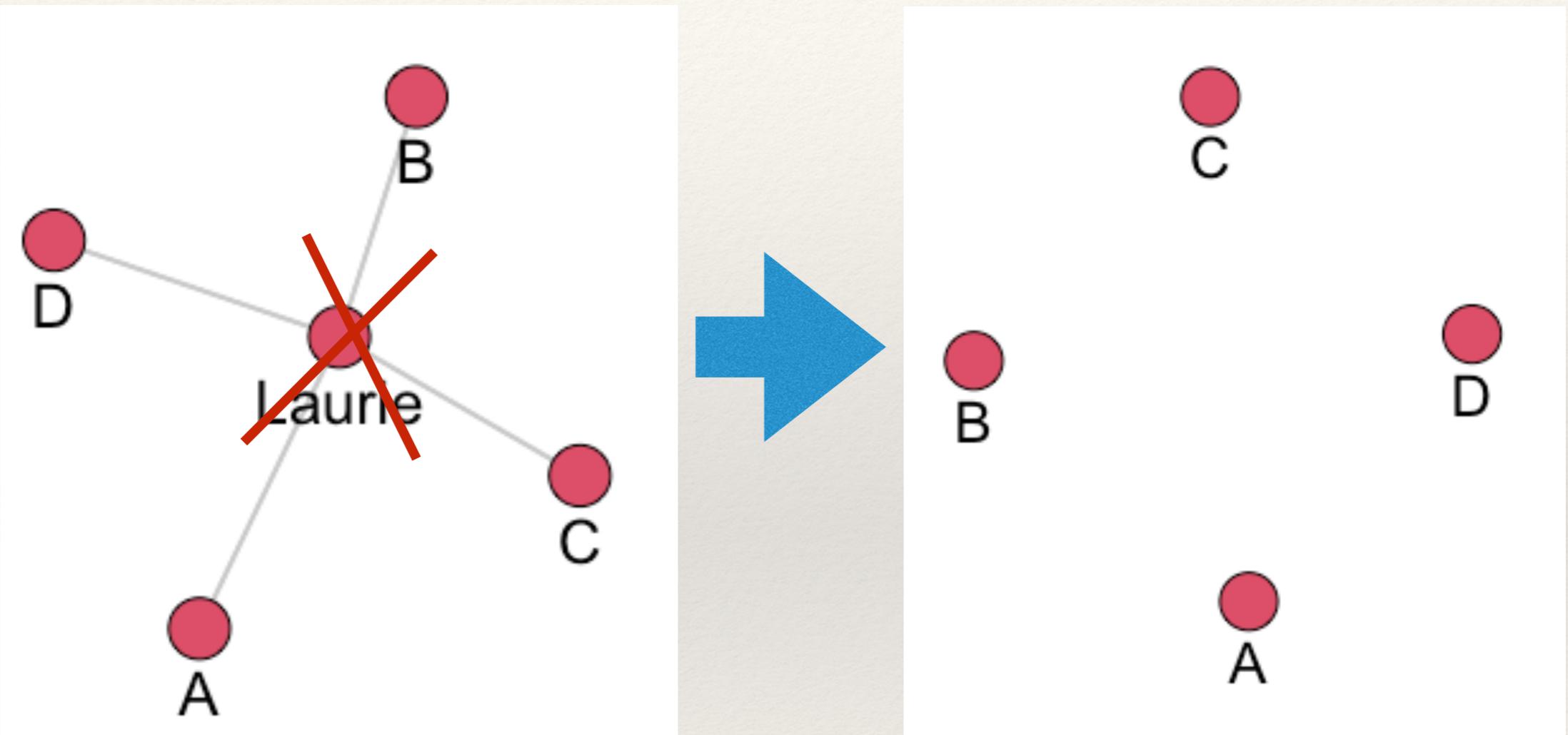
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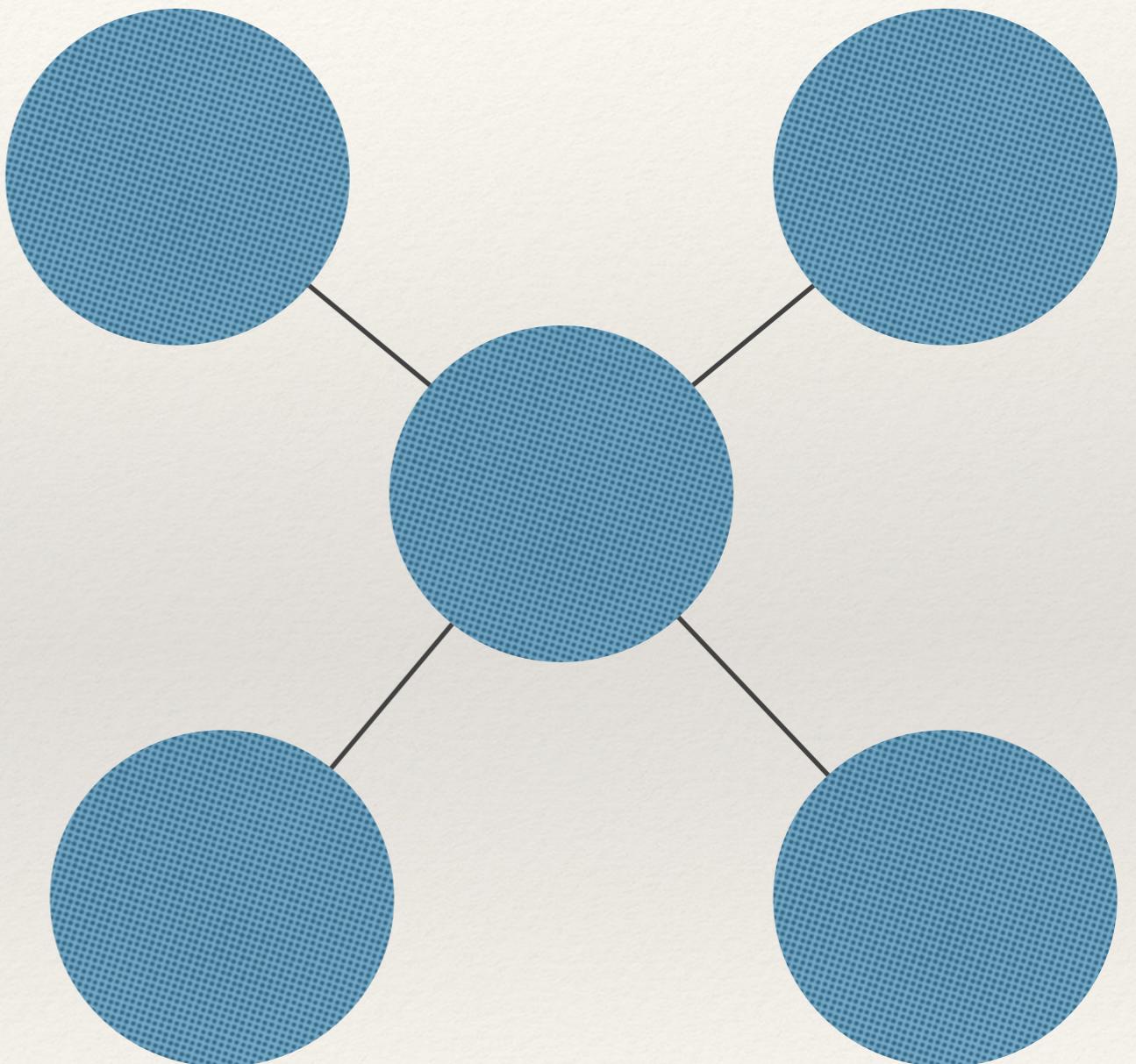
Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline



The Family Gossip Pipeline is vulnerable

Why Networks?: Networks Matter!

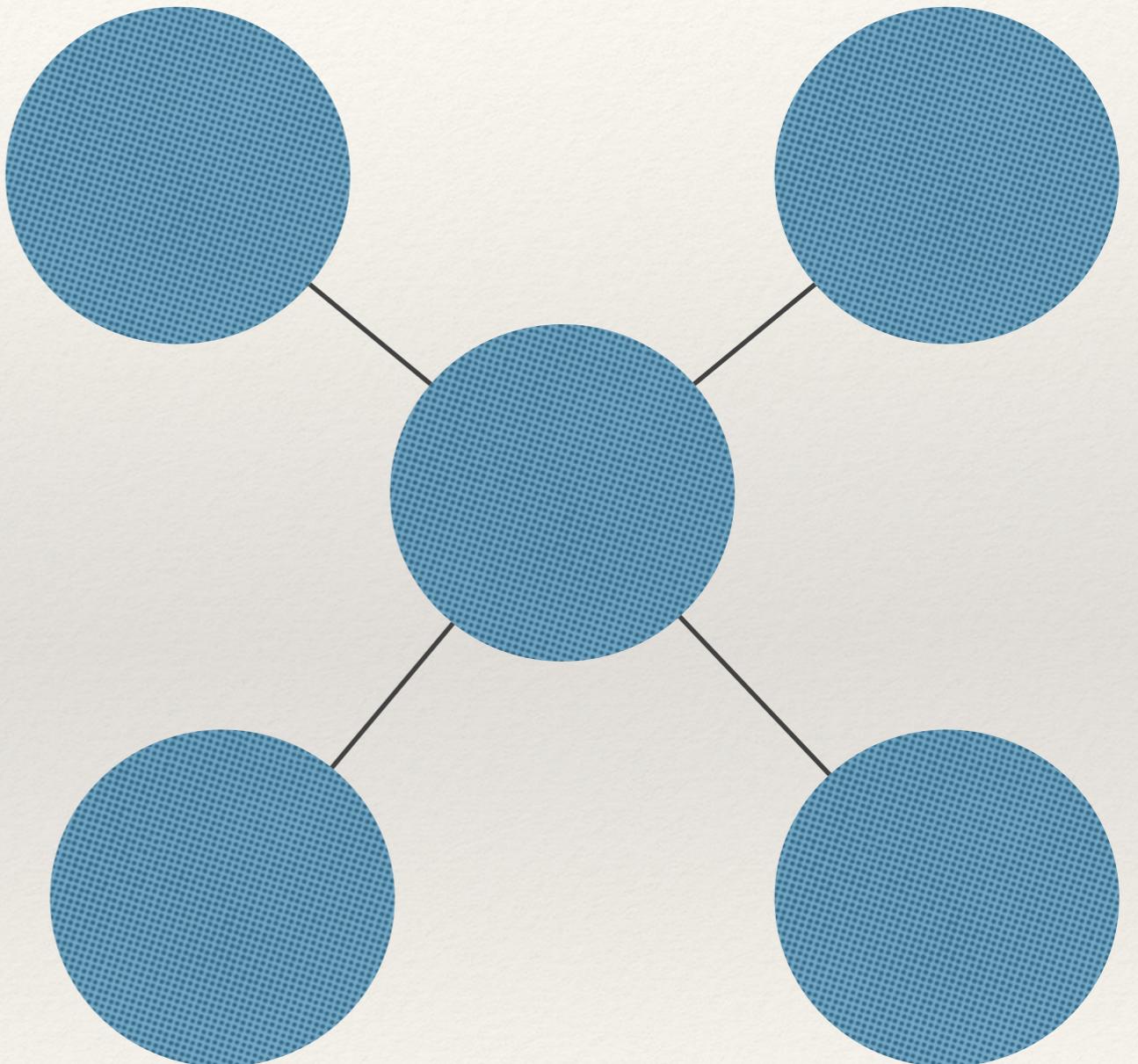
Just as gossip spreads through a network, so may drugs, money, people...



Why Networks?: Networks Matter!

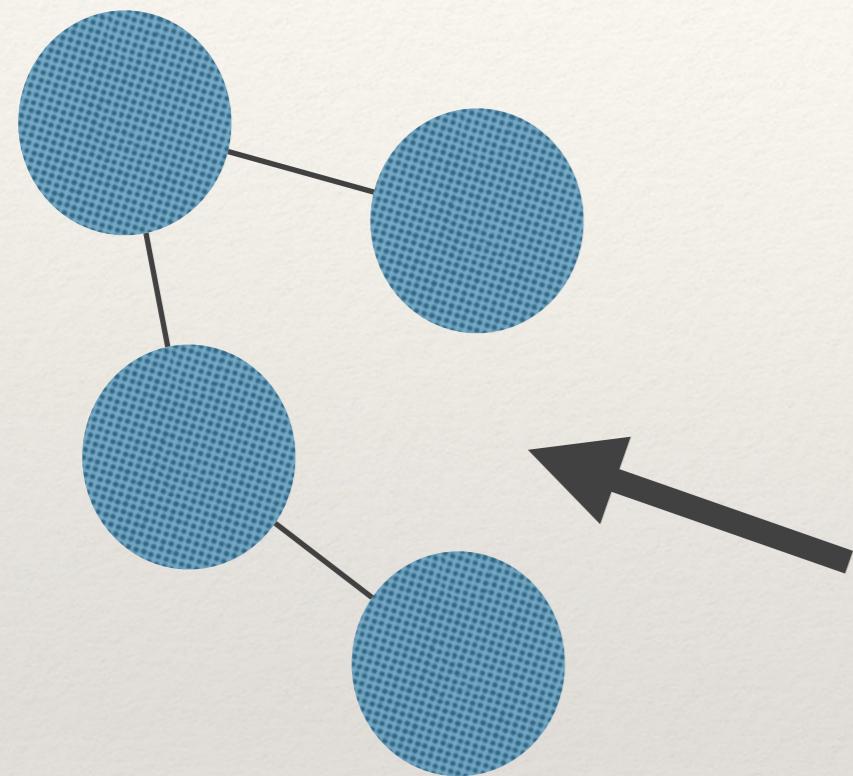
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Understanding the network matters



Example: Criminal Organization in Italy

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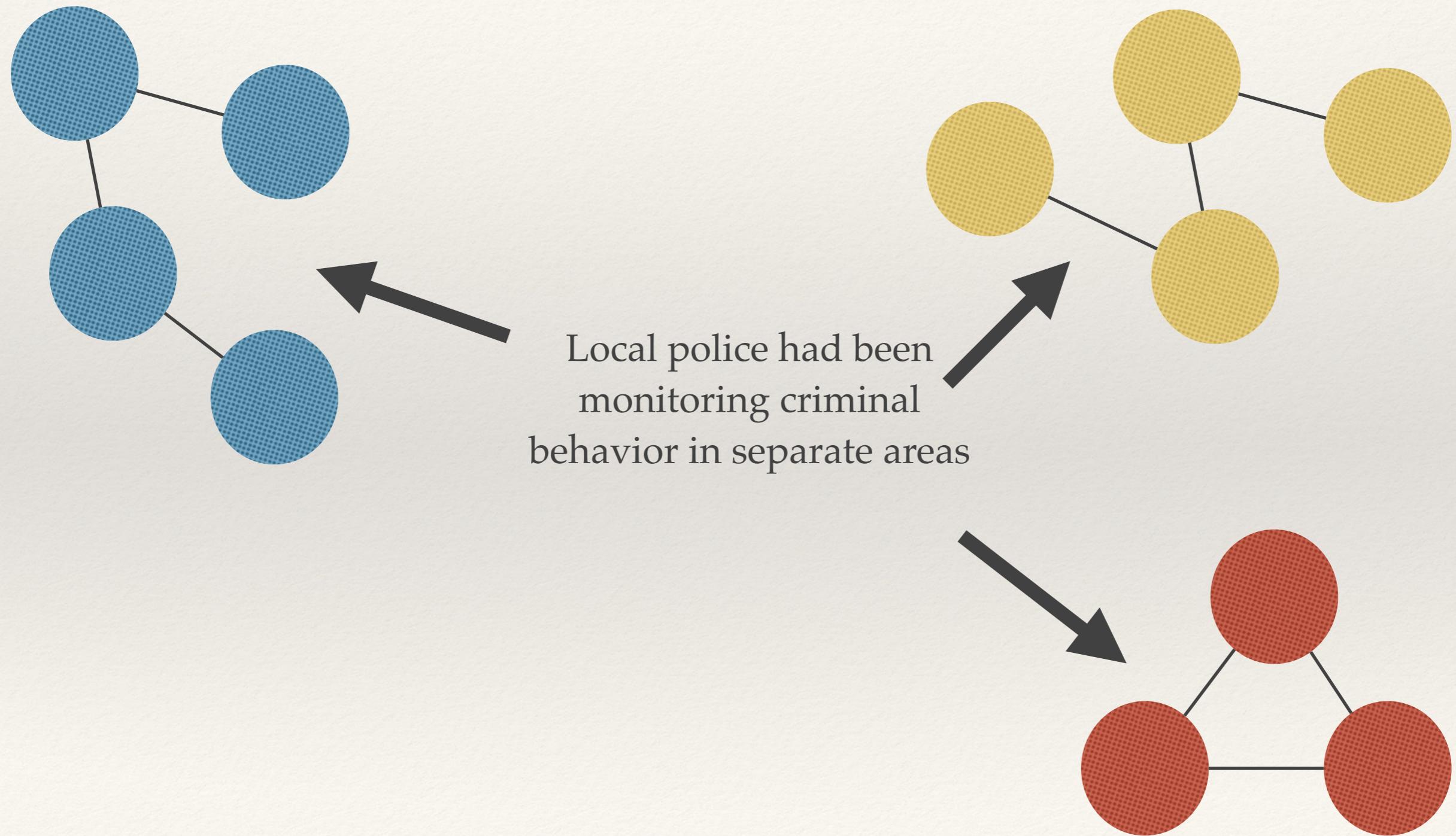


Local police had been monitoring criminal behavior in separate areas

Example: Criminal Organization in Italy



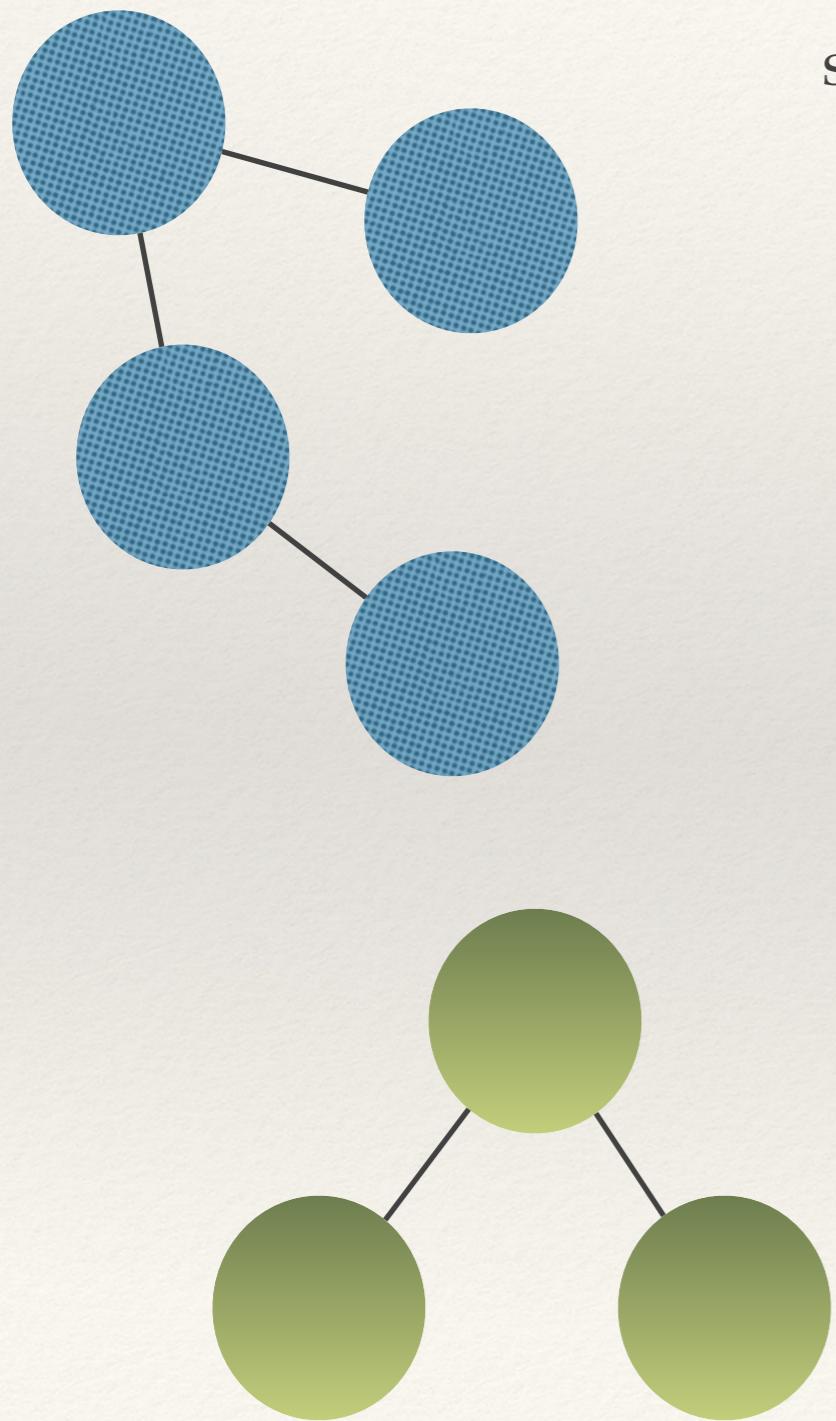
Example: Criminal Organization in Italy



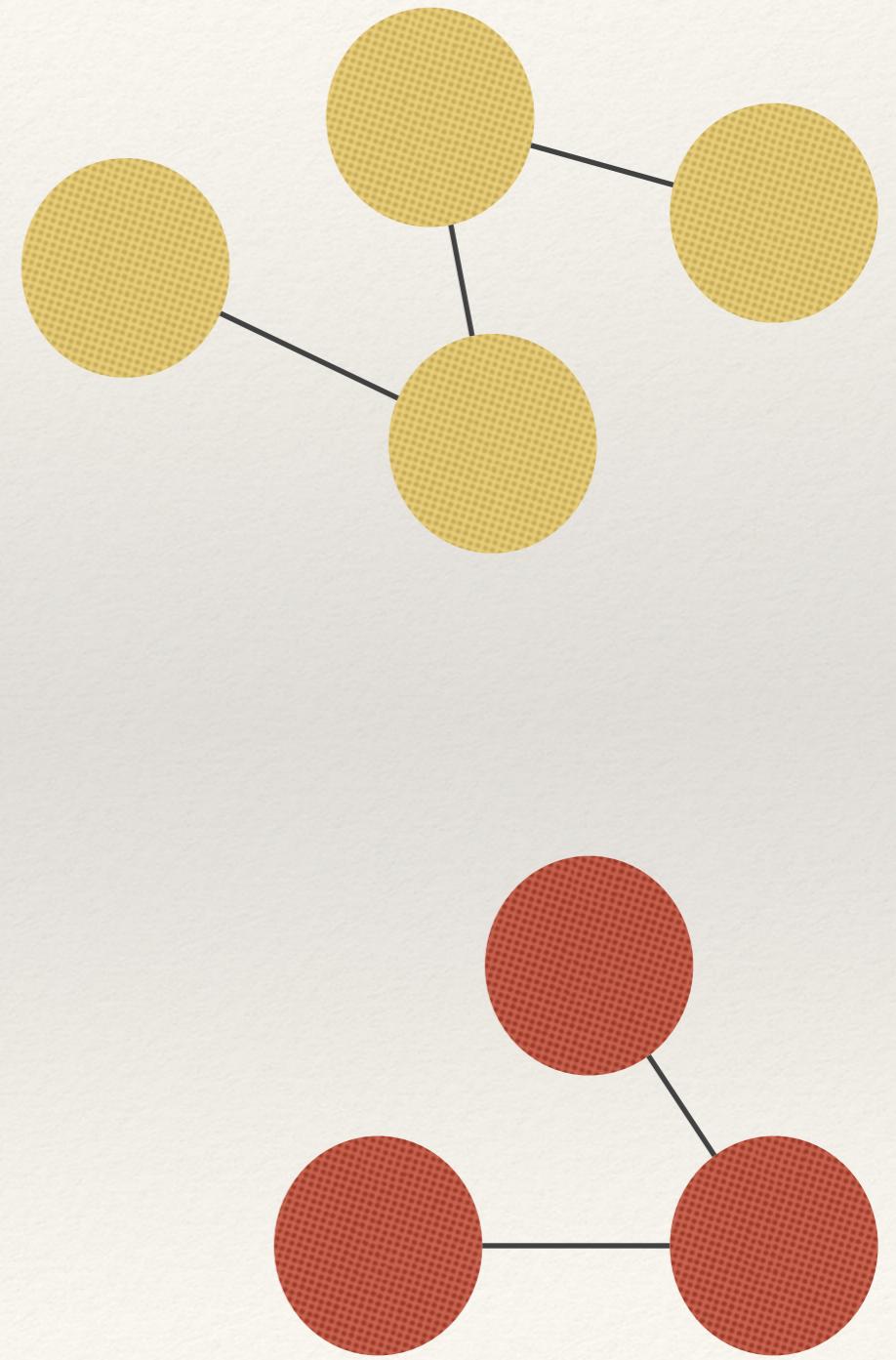
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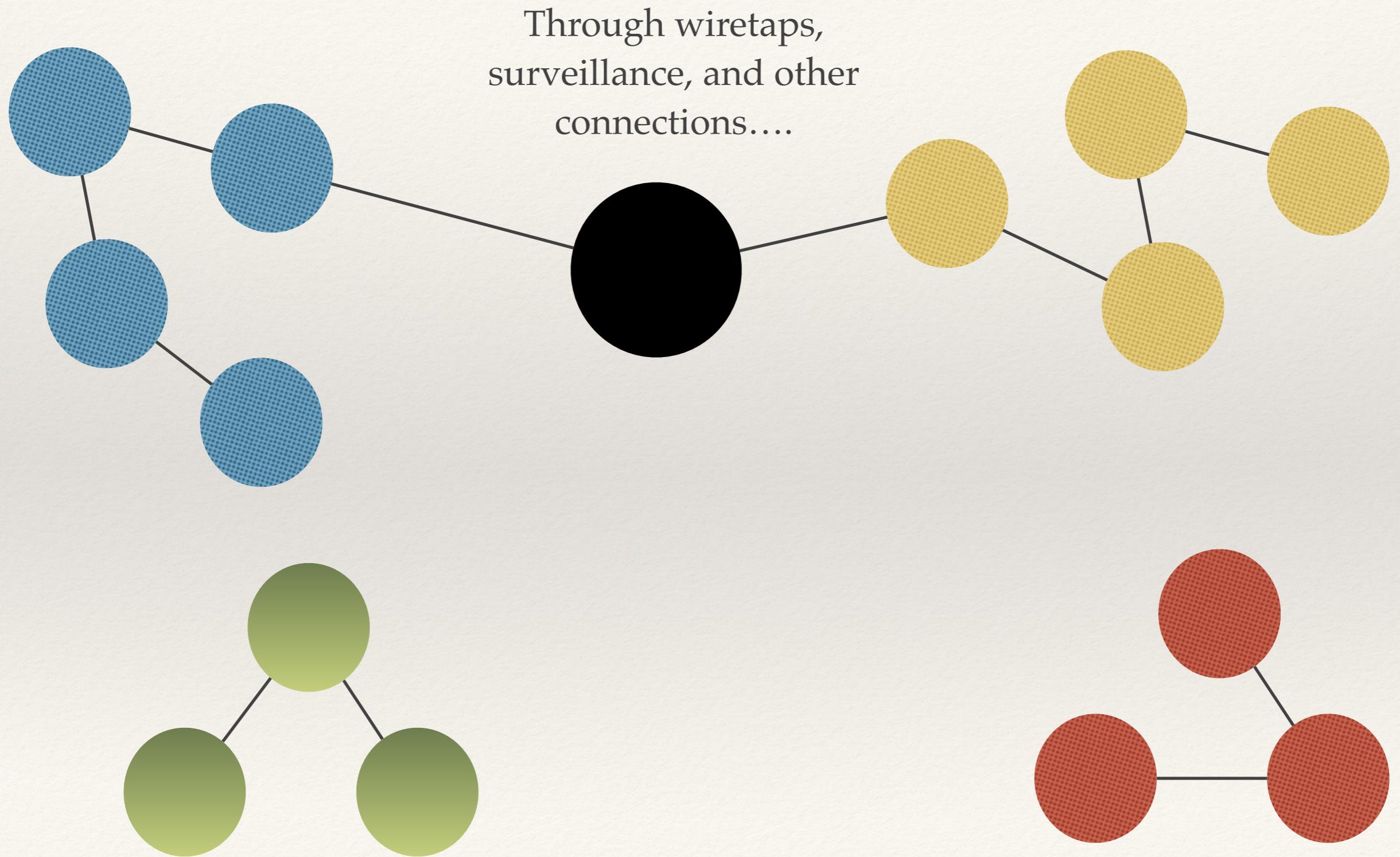
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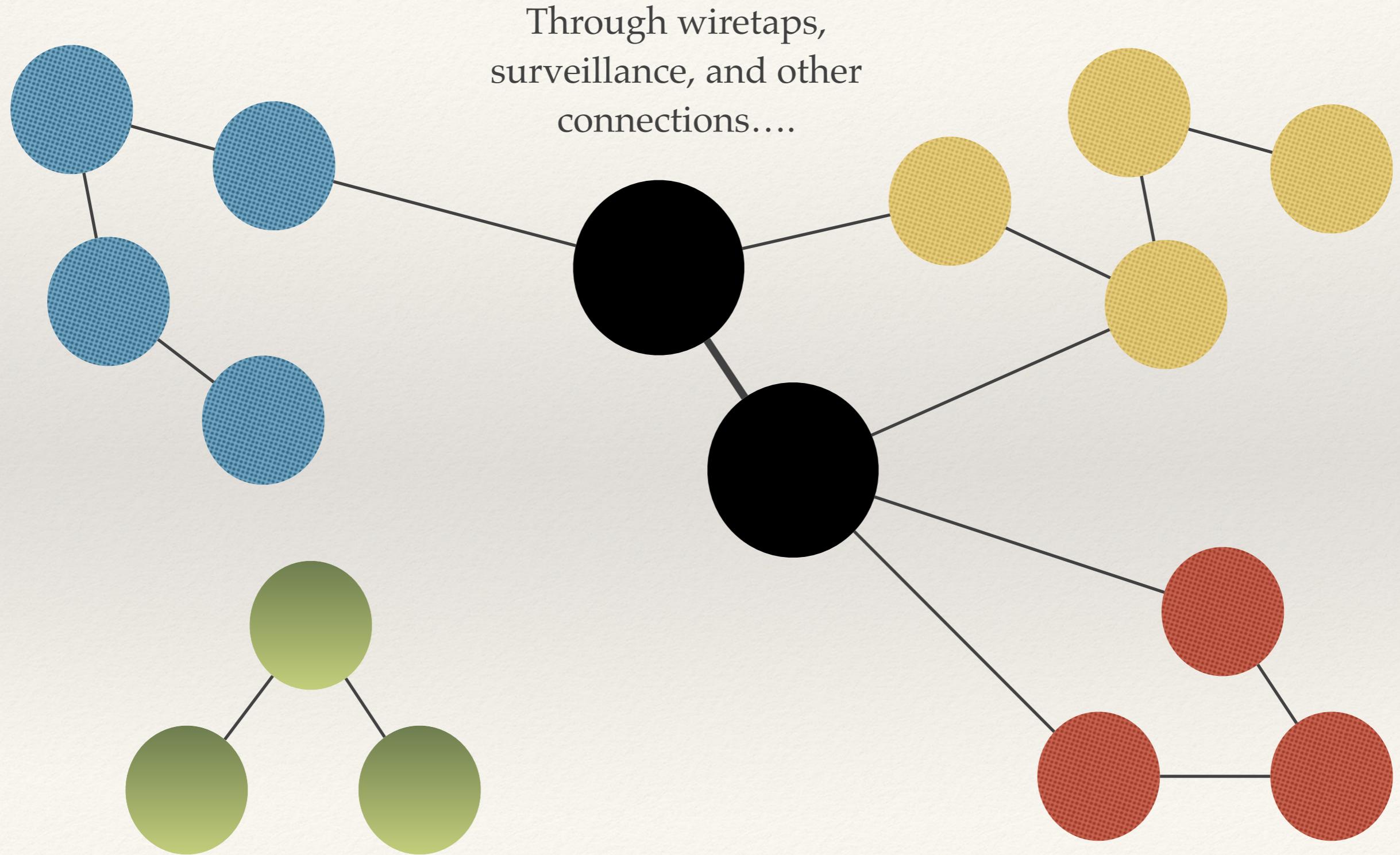
Through wiretaps,
surveillance, and other
connections....



Example: Criminal Organization in Italy

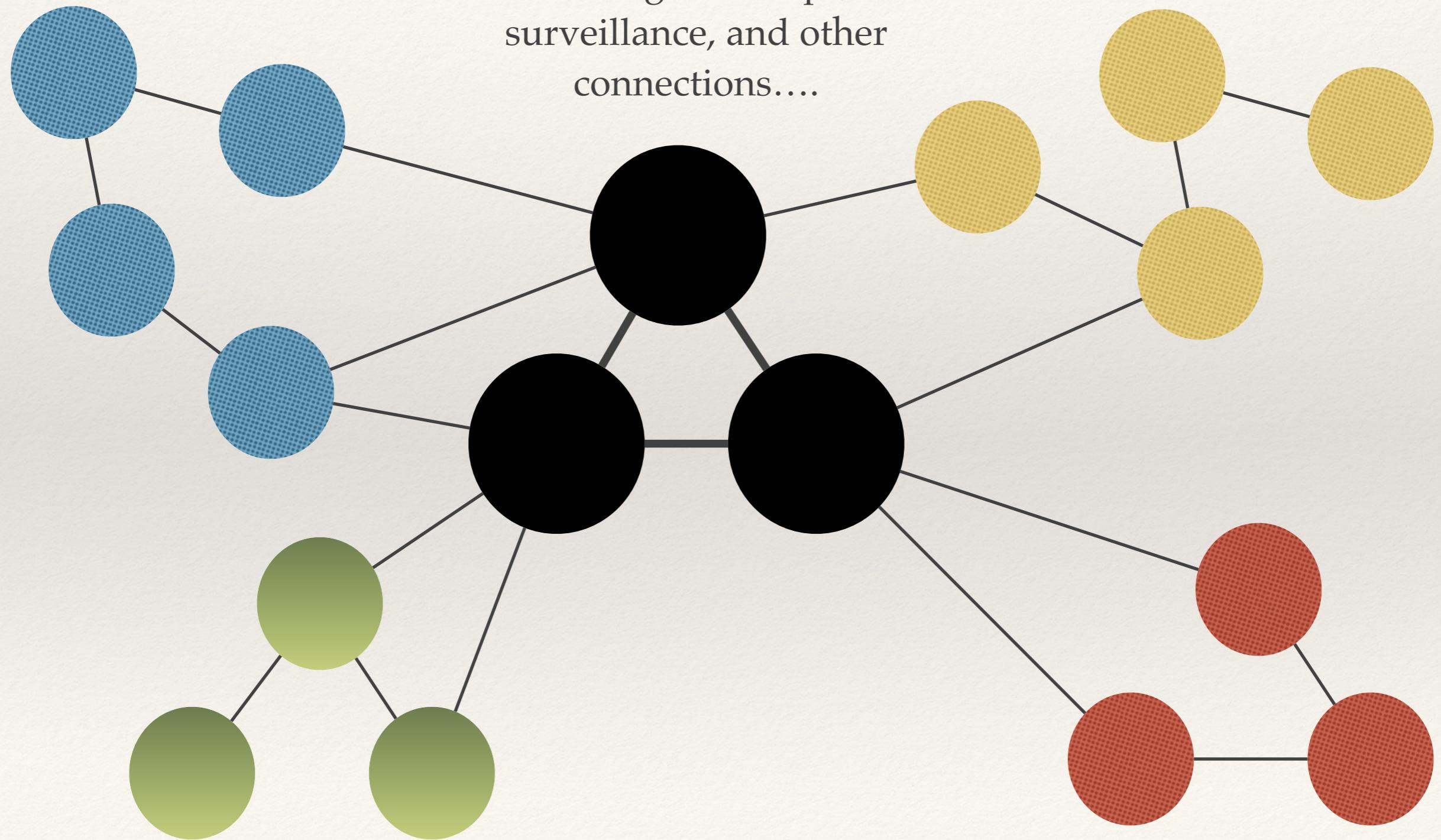


Example: Criminal Organization in Italy



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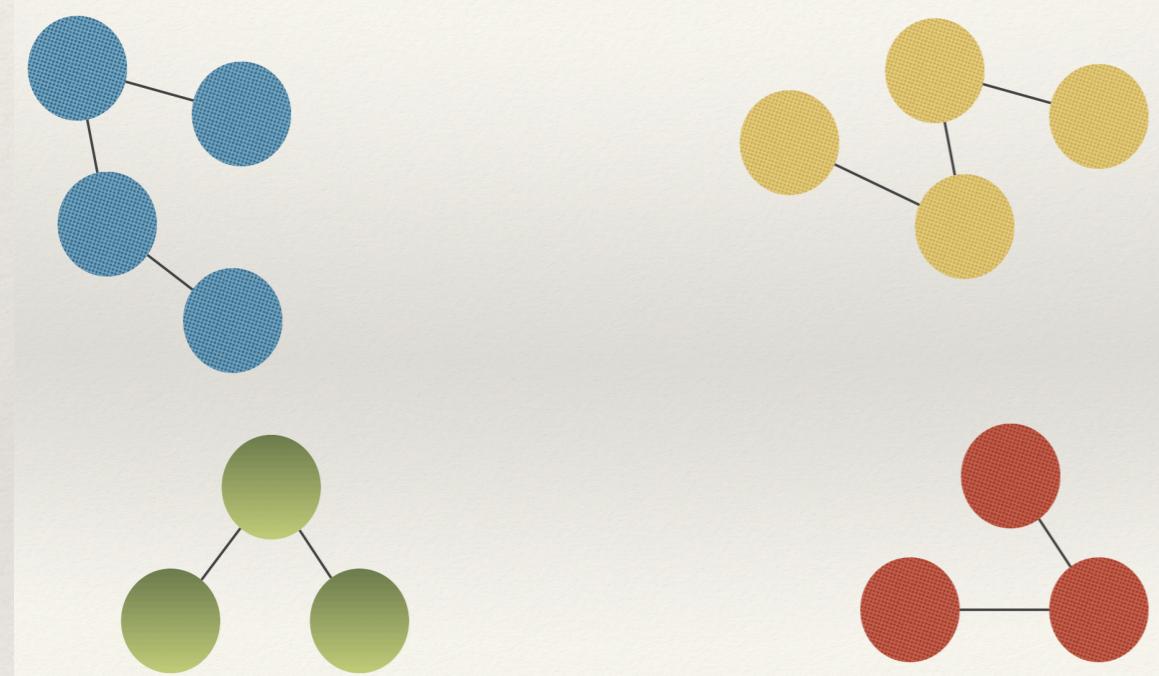


Example: Criminal Organization in Italy

The **structure of the network**
influenced what should be done

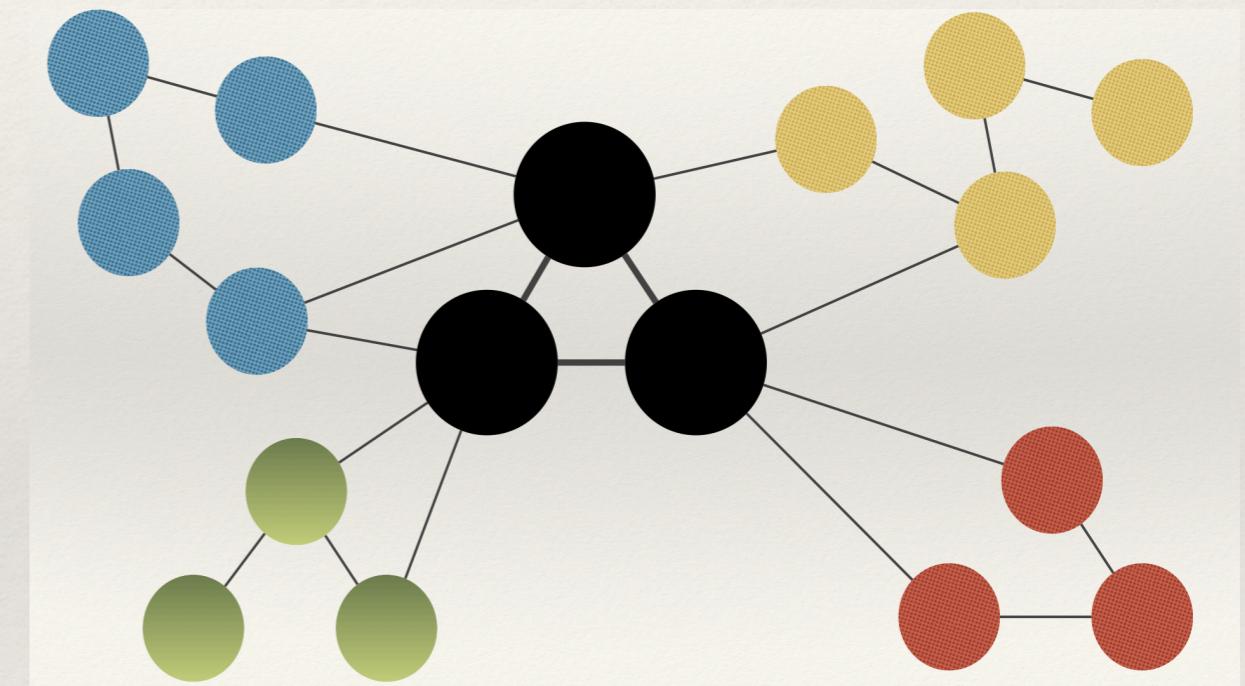
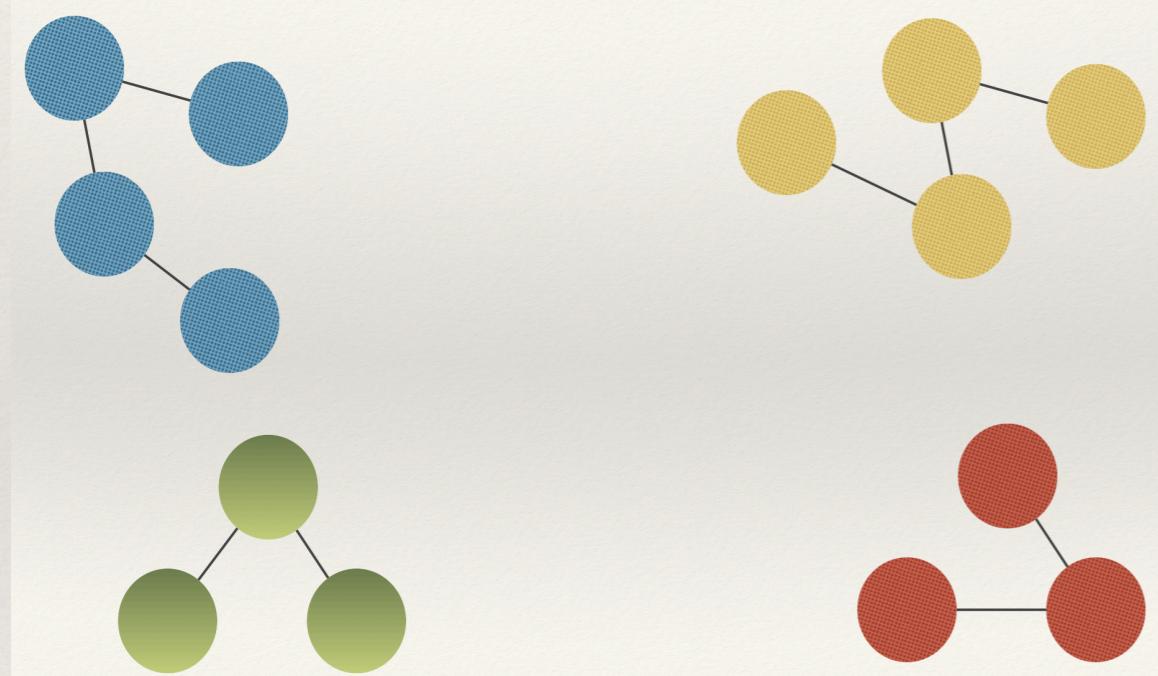
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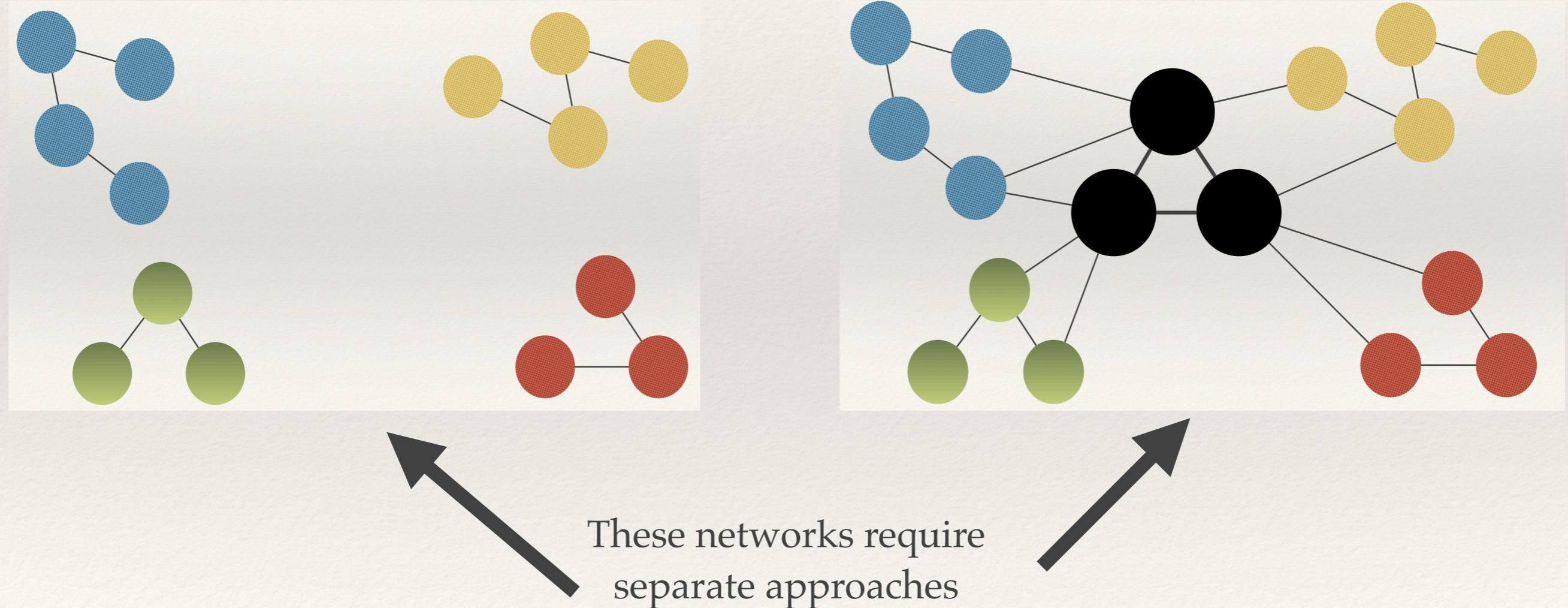
Example: Criminal Organization in Italy

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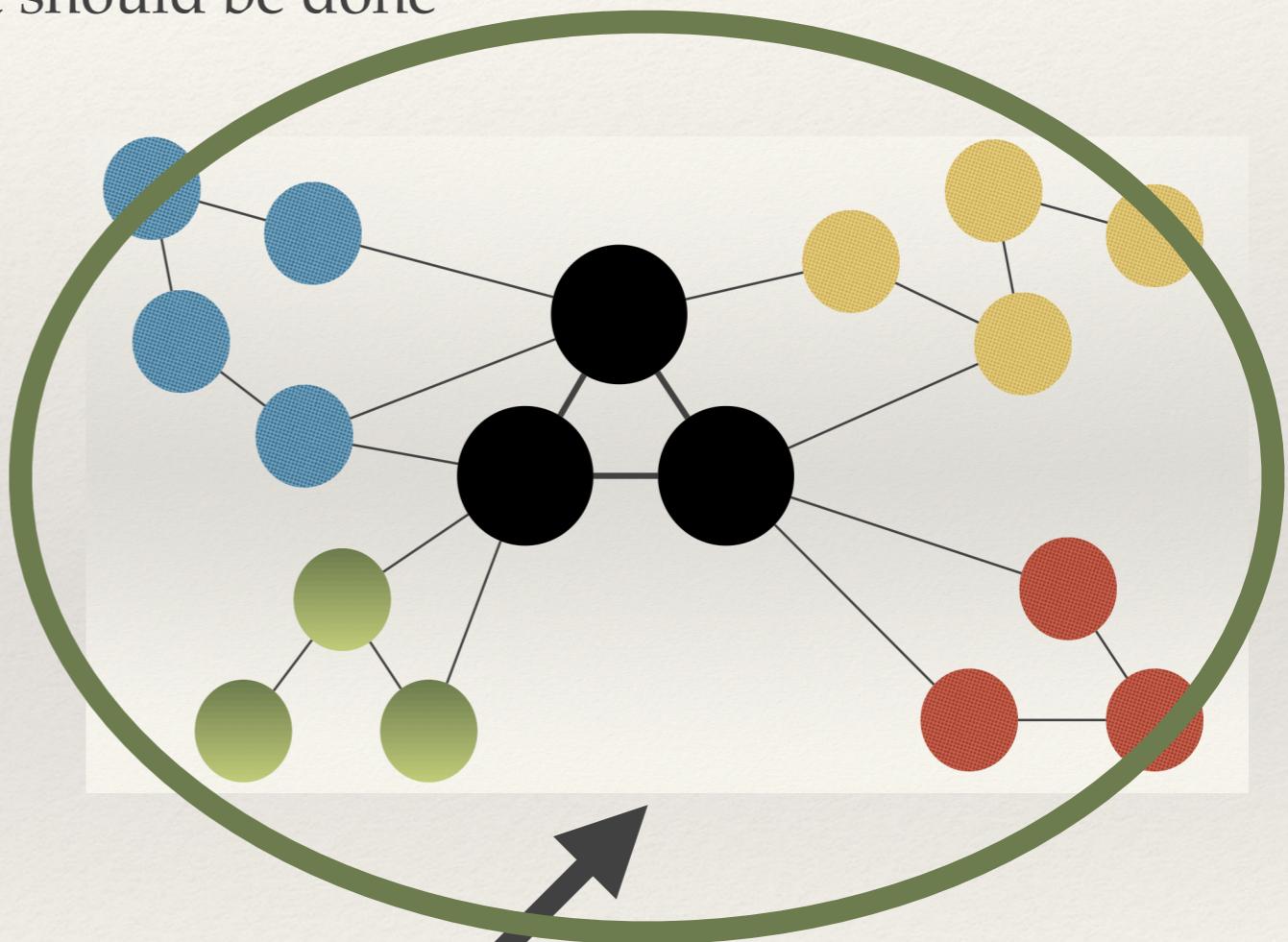
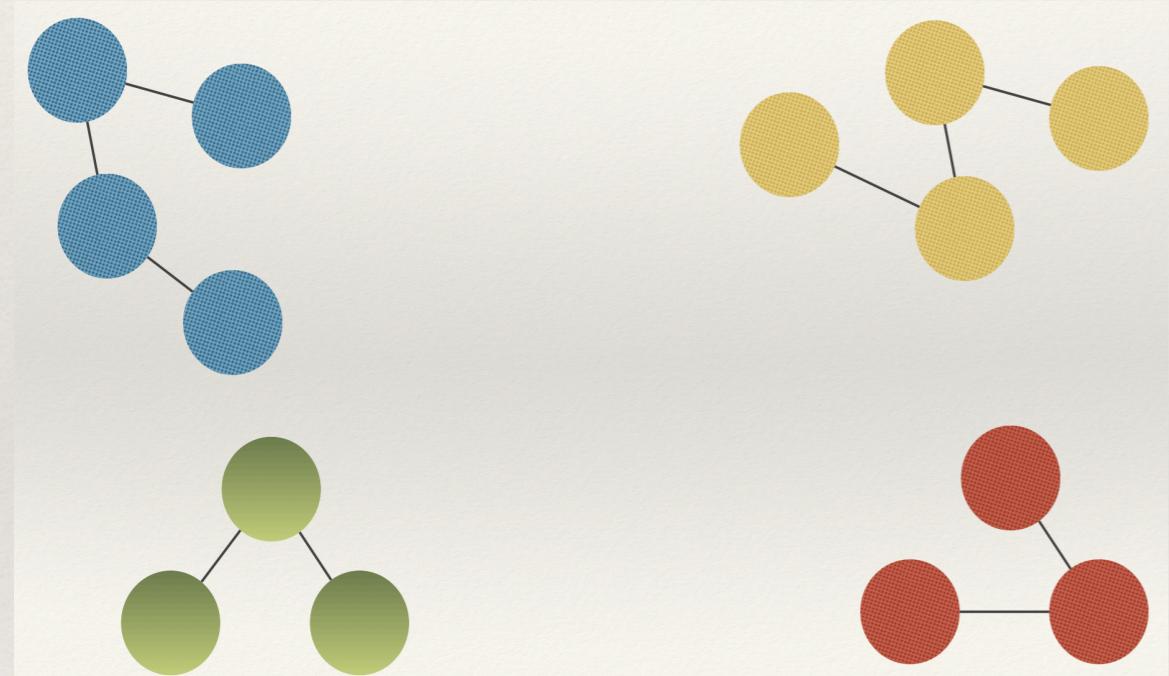
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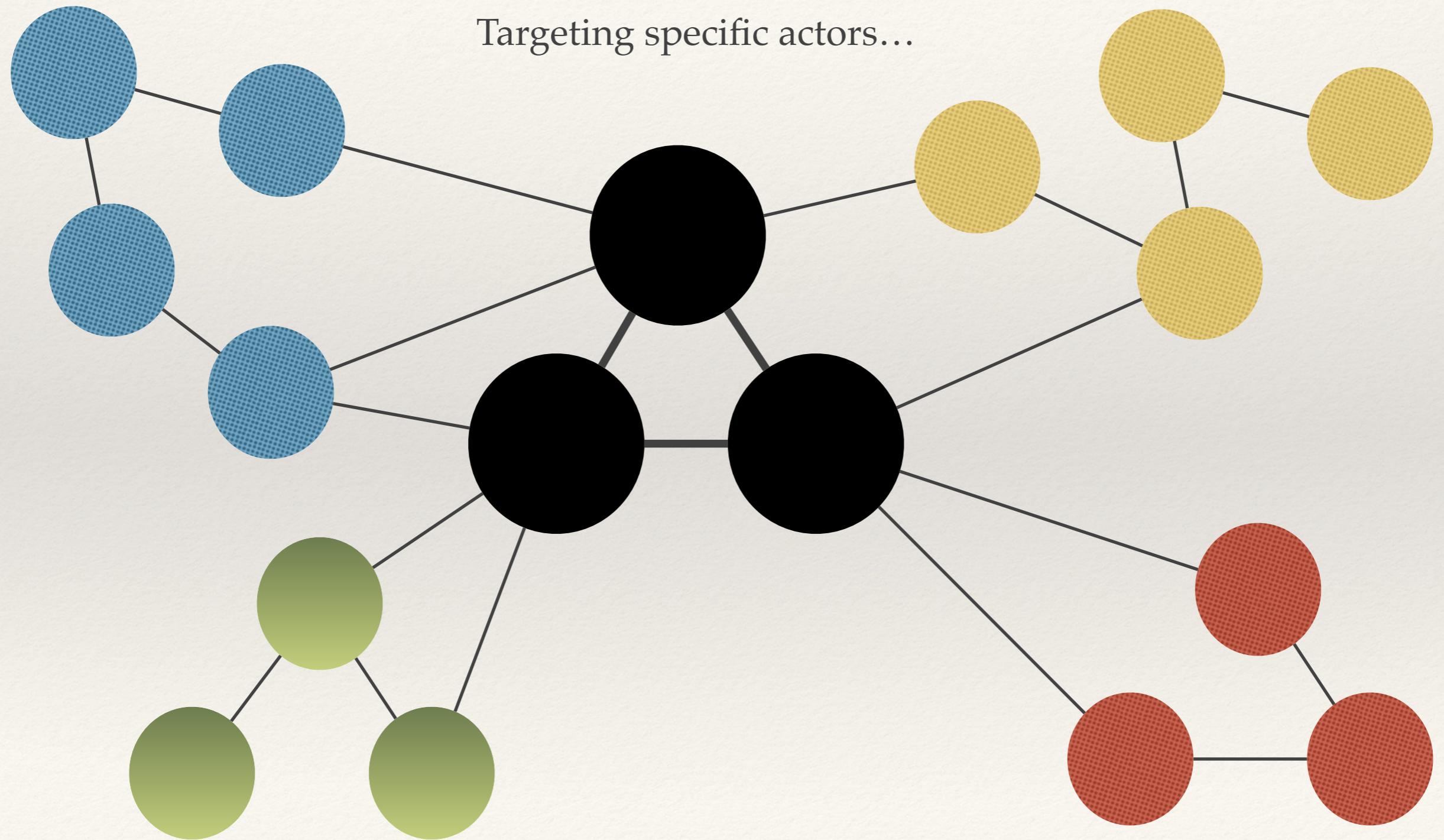
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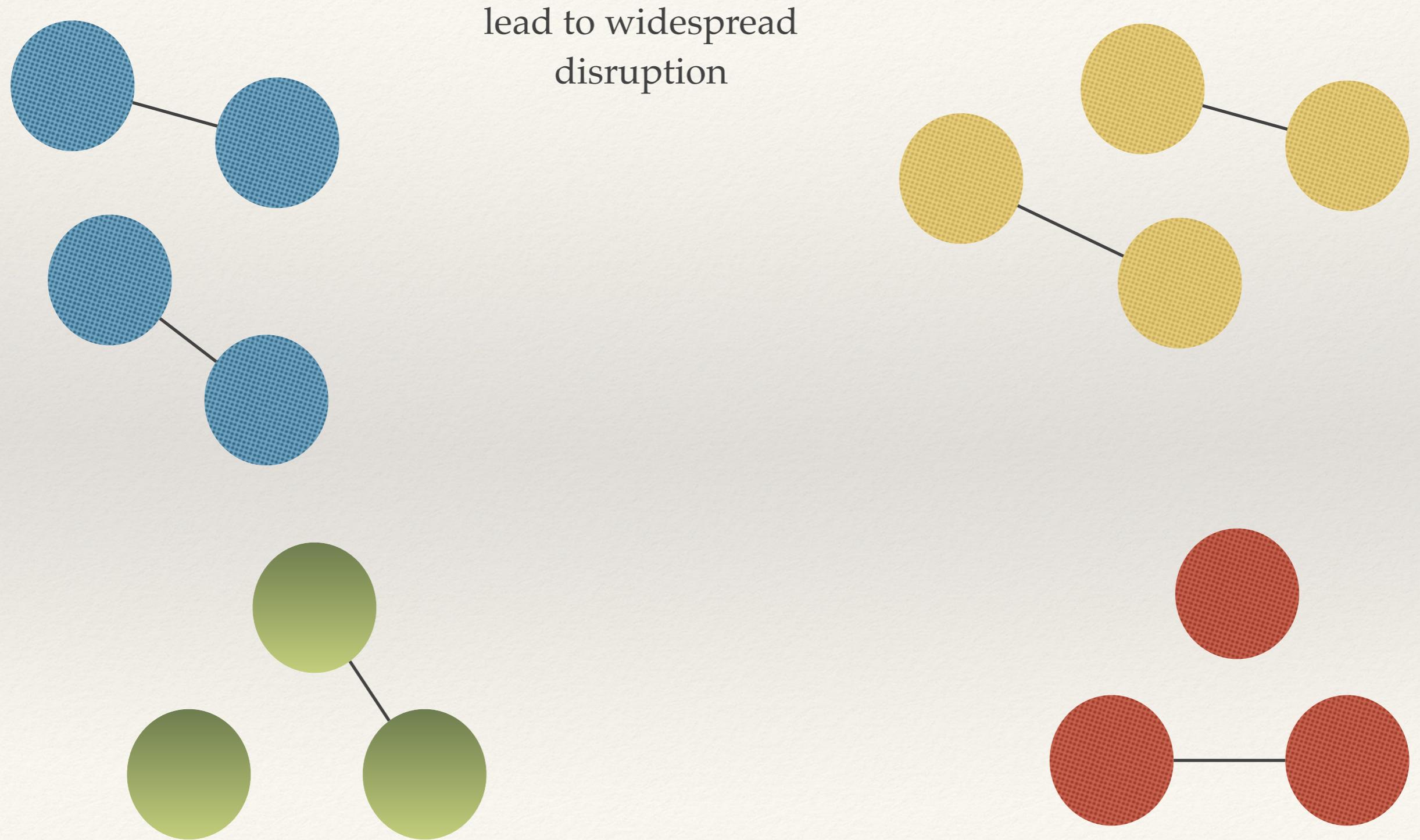


These networks require
separate approaches

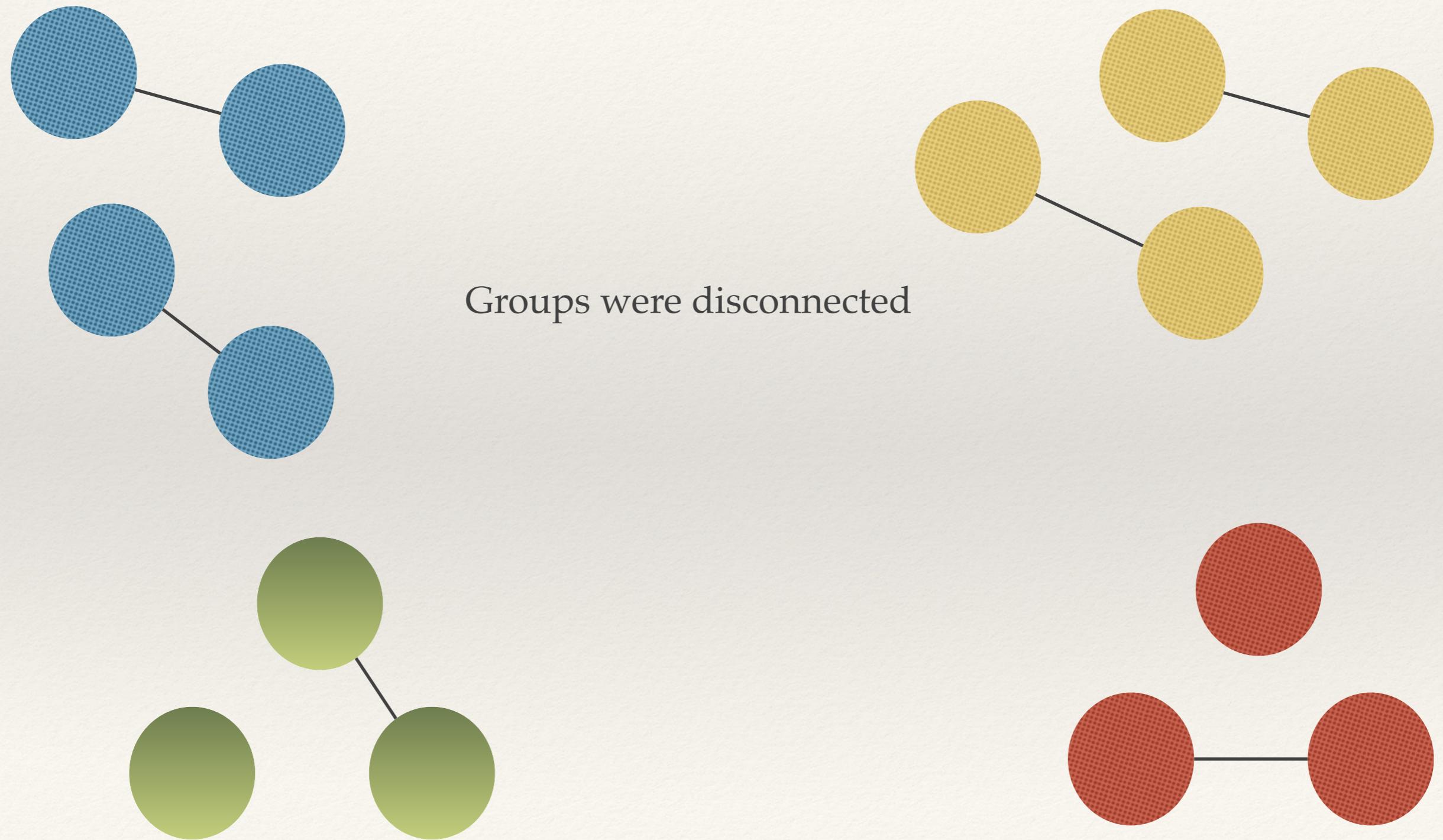
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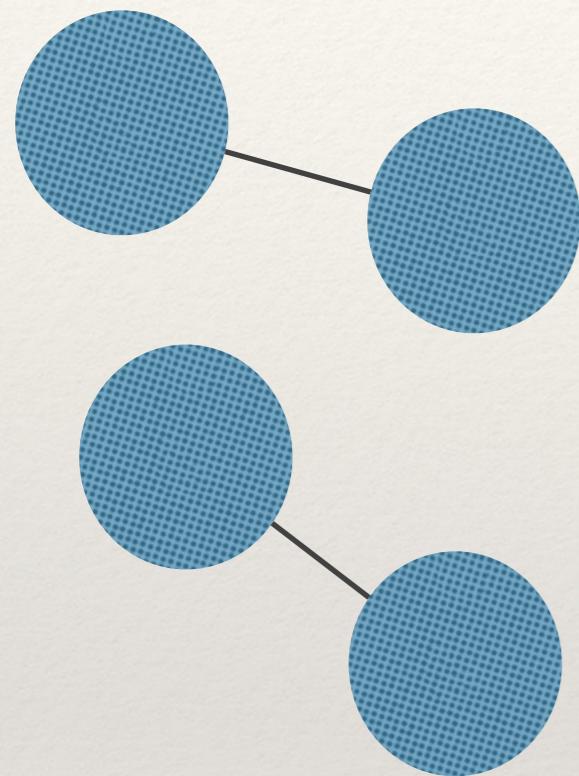
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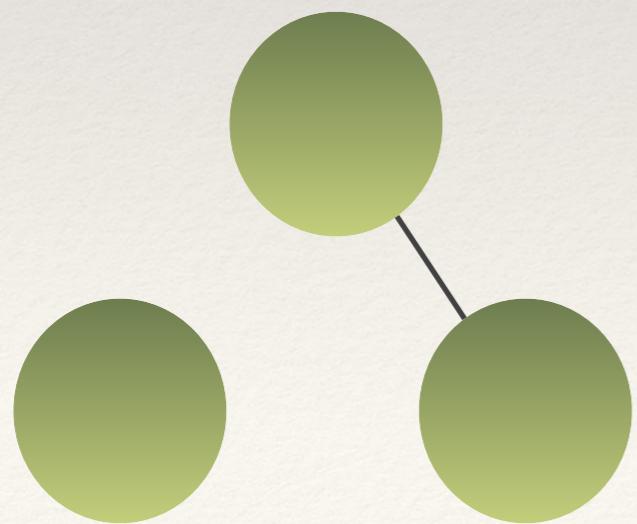
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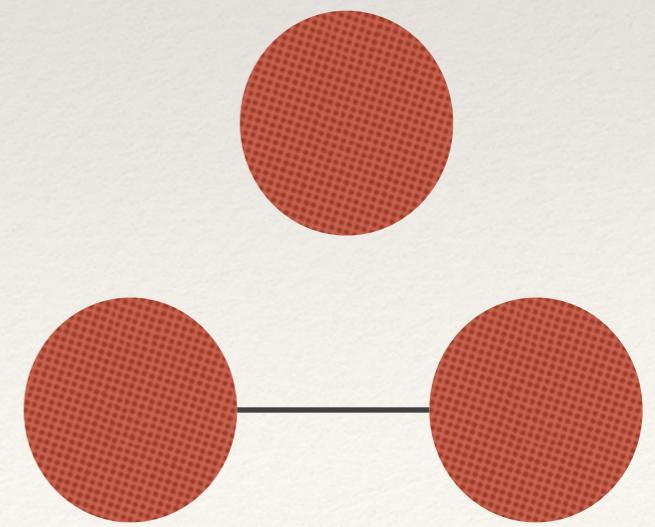
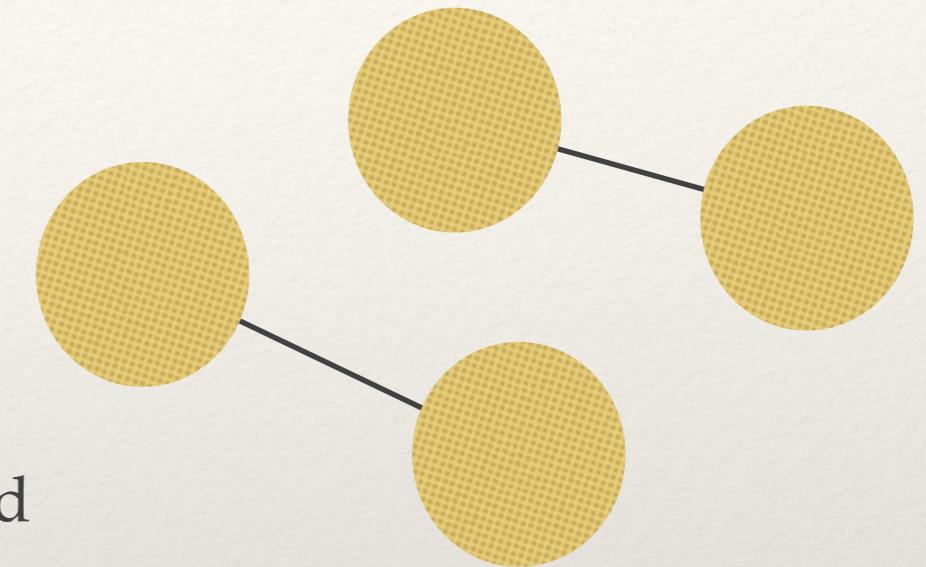
Example: Criminal Organization in Italy



Groups were disconnected

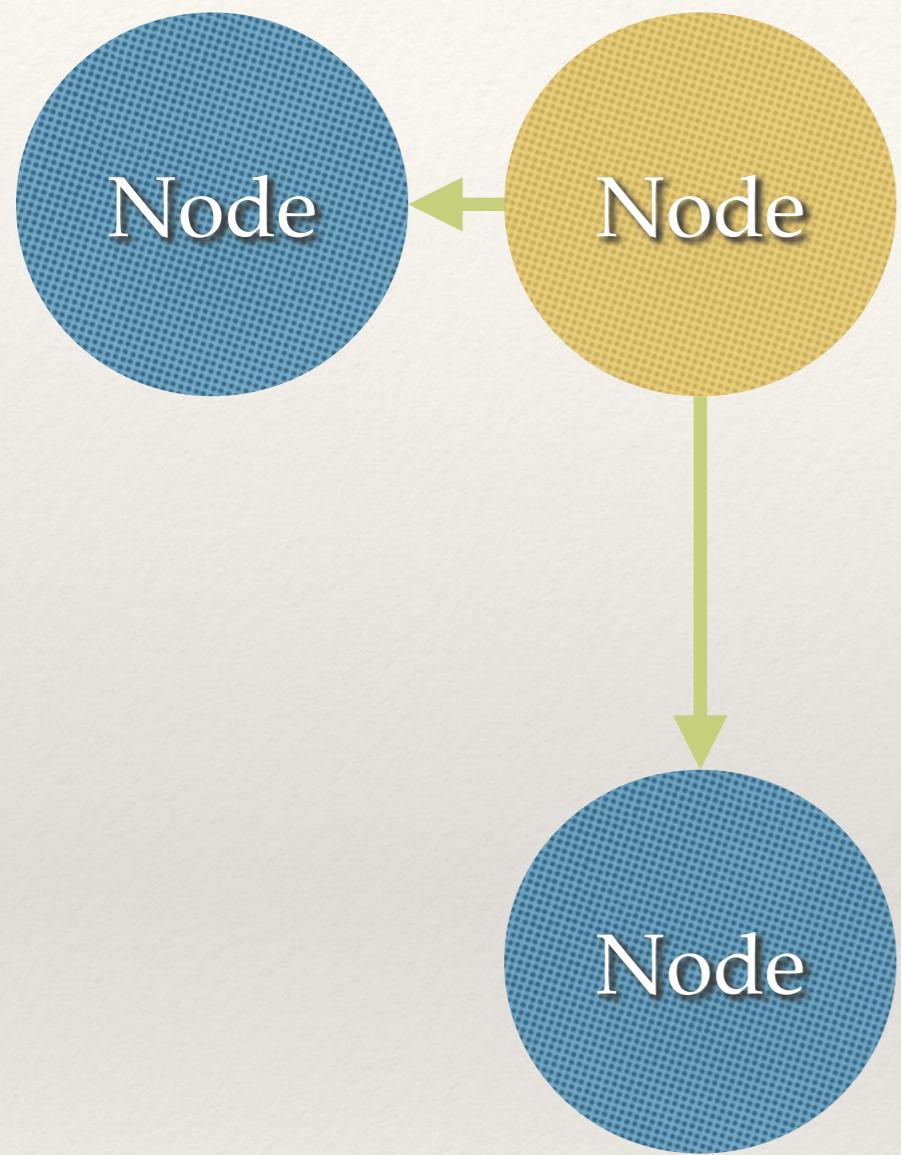


BUT, local activity was also impacted

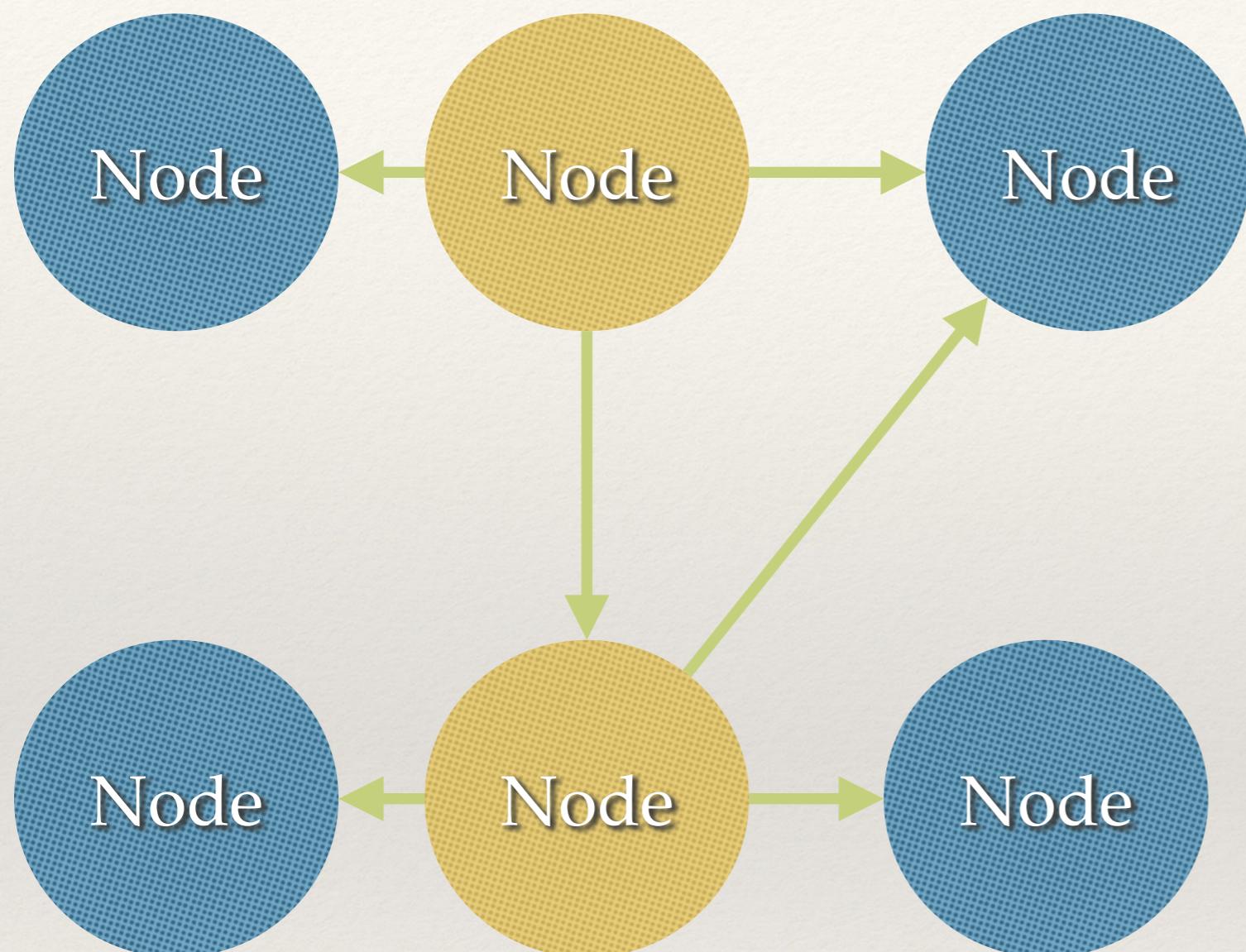


Addiction as a Network Phenomenon

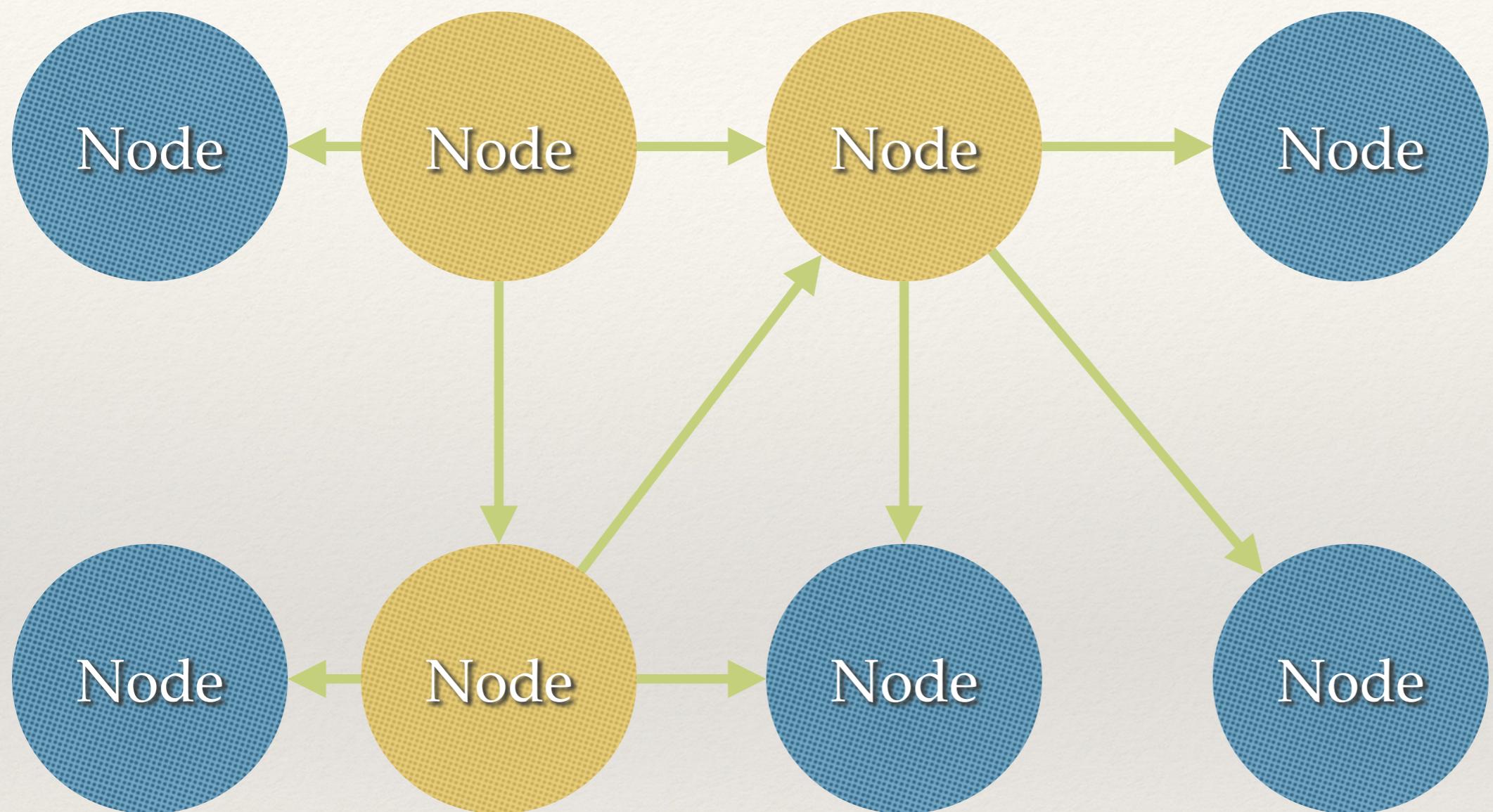
- ❖ How did the widespread abuse of prescription drugs in the United States occur?
 - ❖ Were more people in pain?
 - ❖ Were doctors actively seeking new patients?

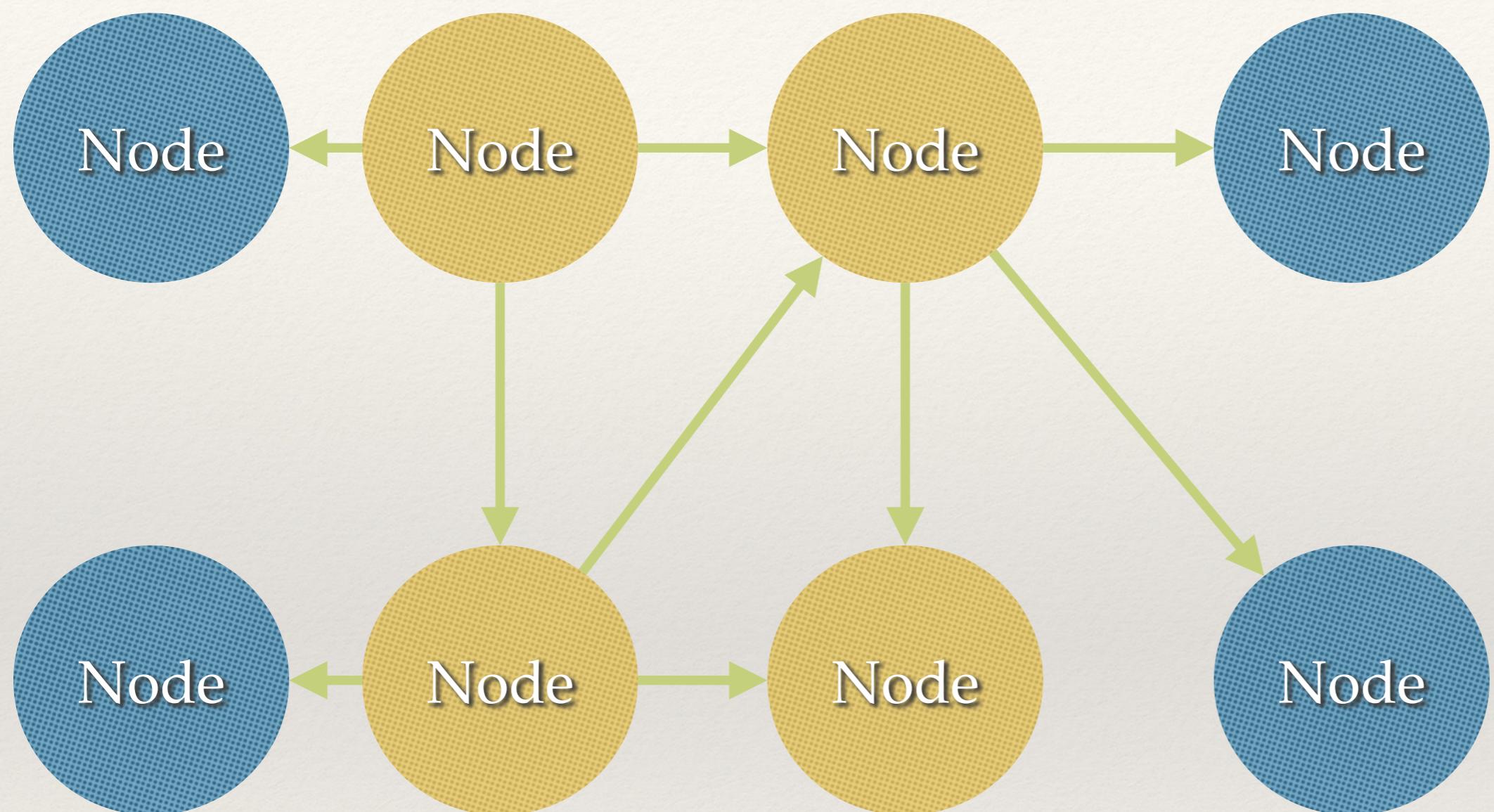


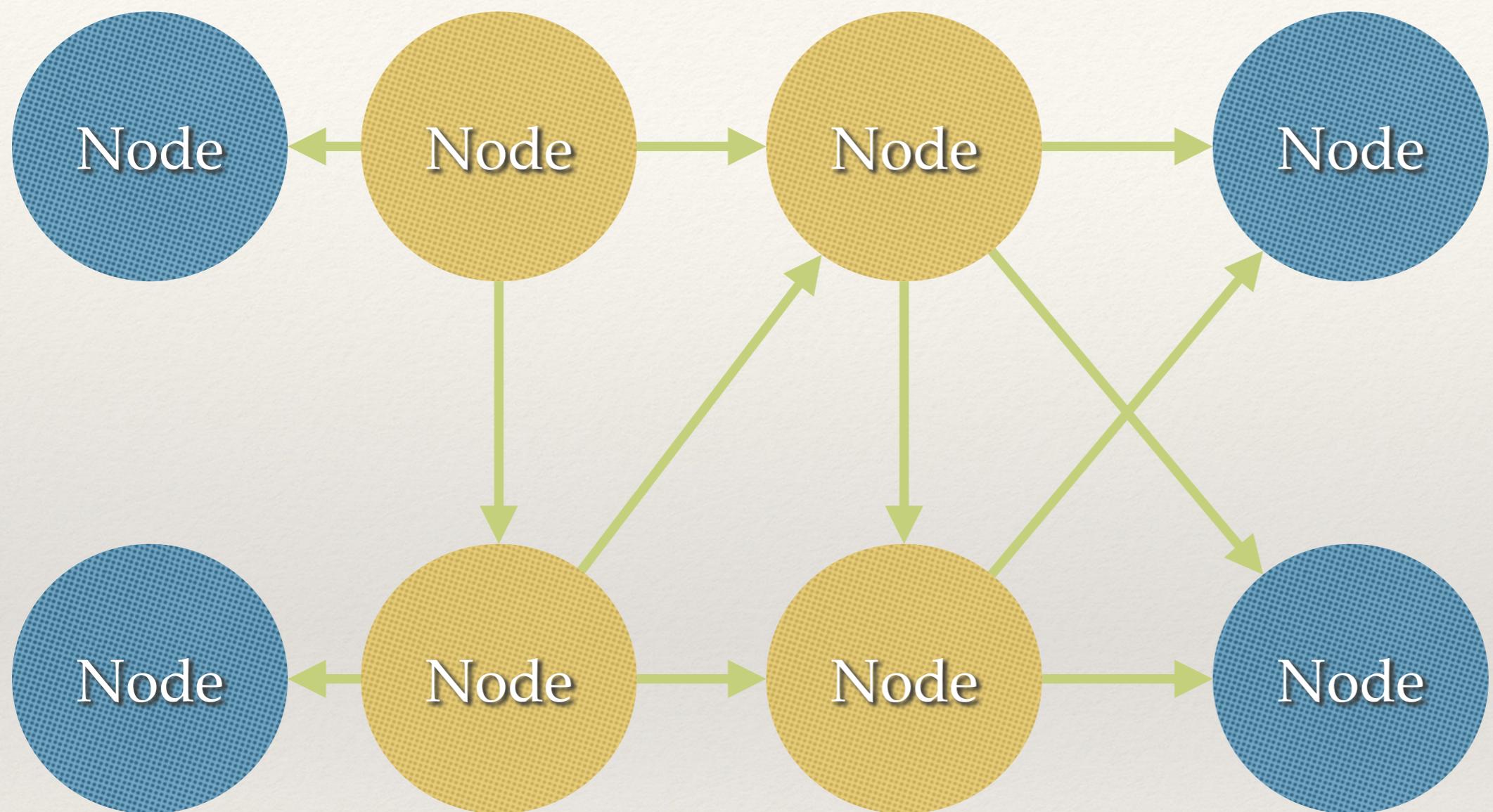
Information about opioids diffused through workplaces, friendships, but also through social media communities

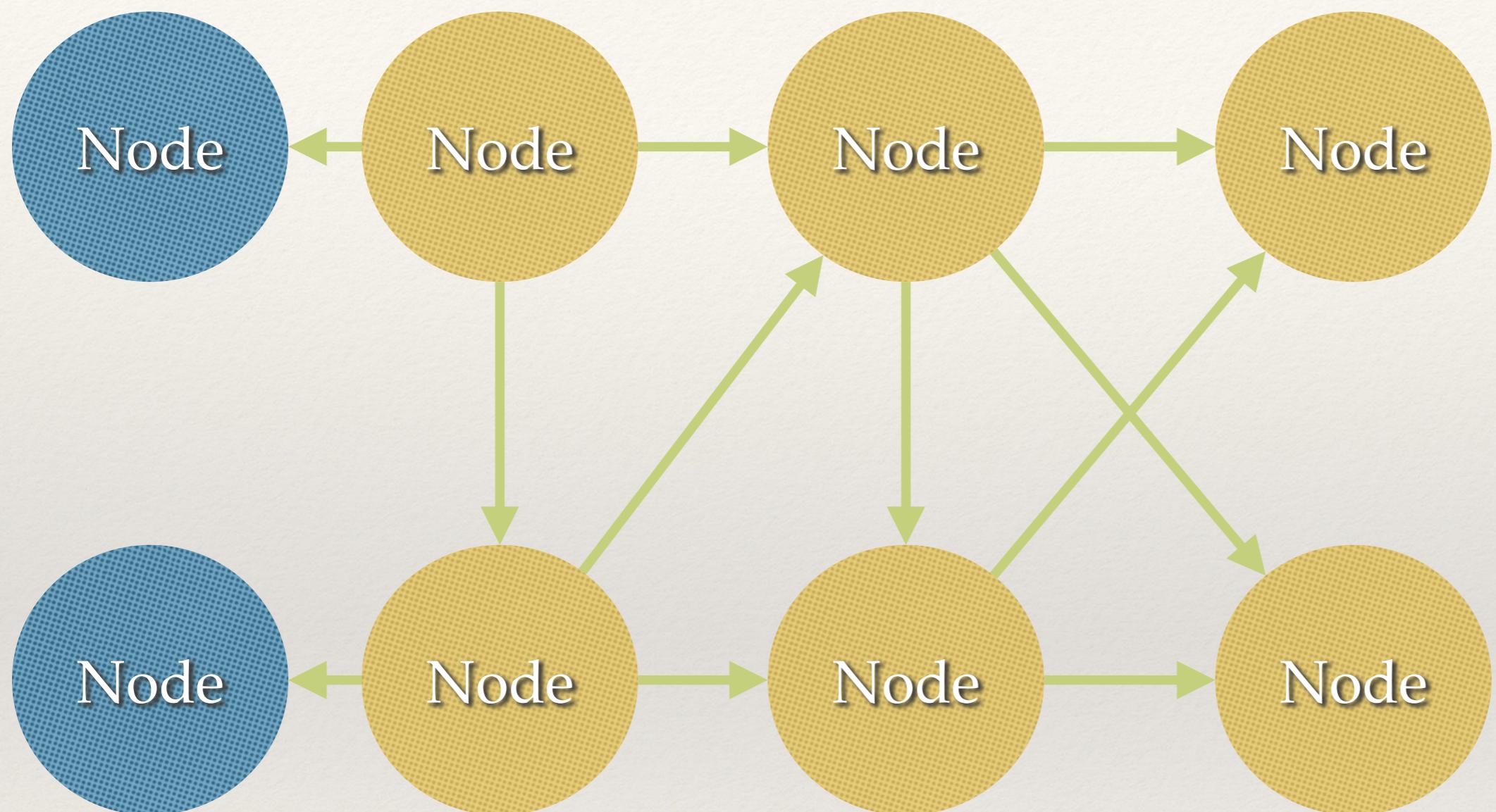


Individuals exposed to this information sought out prescriptions and diffused that information to others

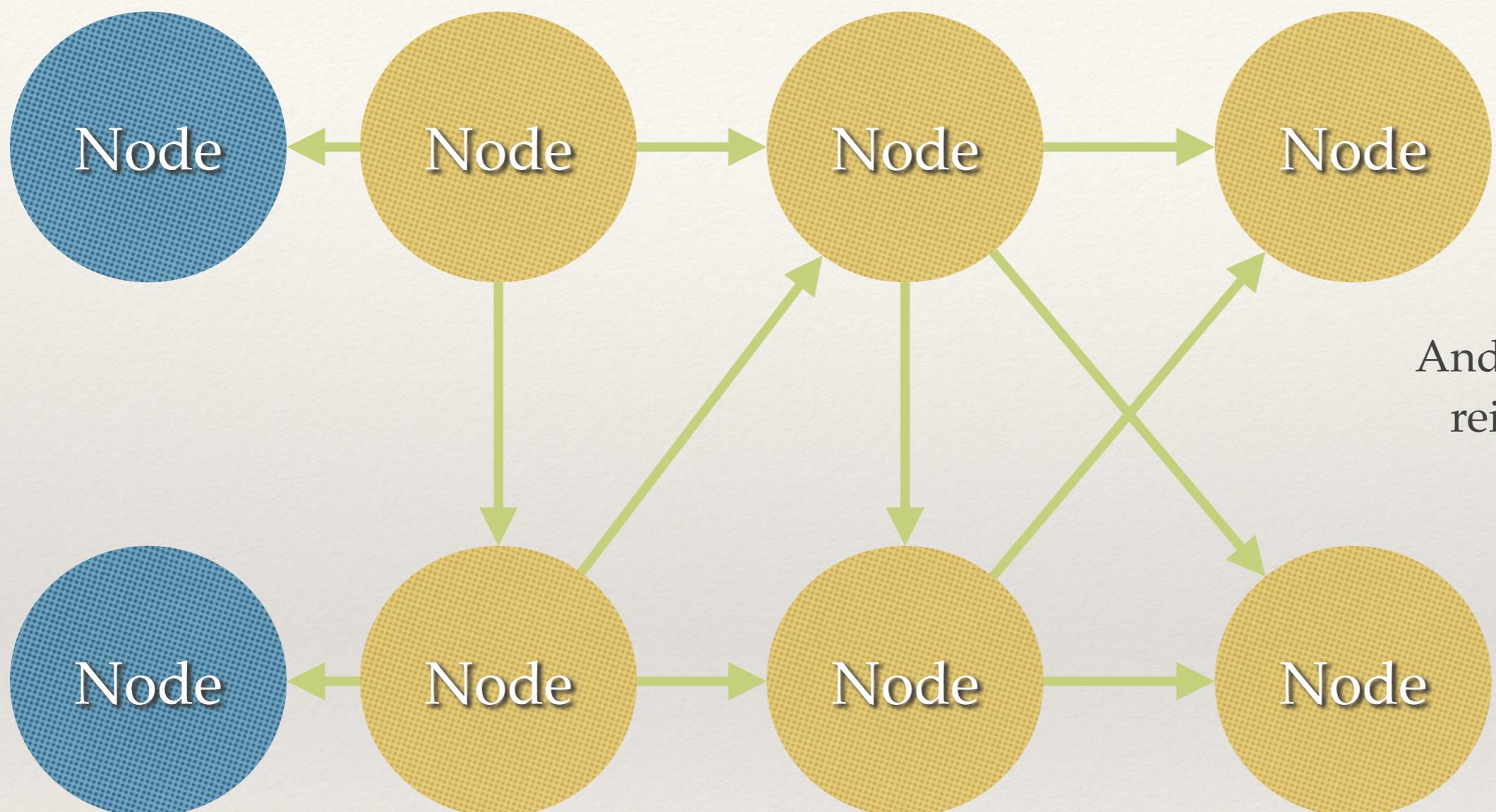








Widespread knowledge
about the access to opioids
spread through networks



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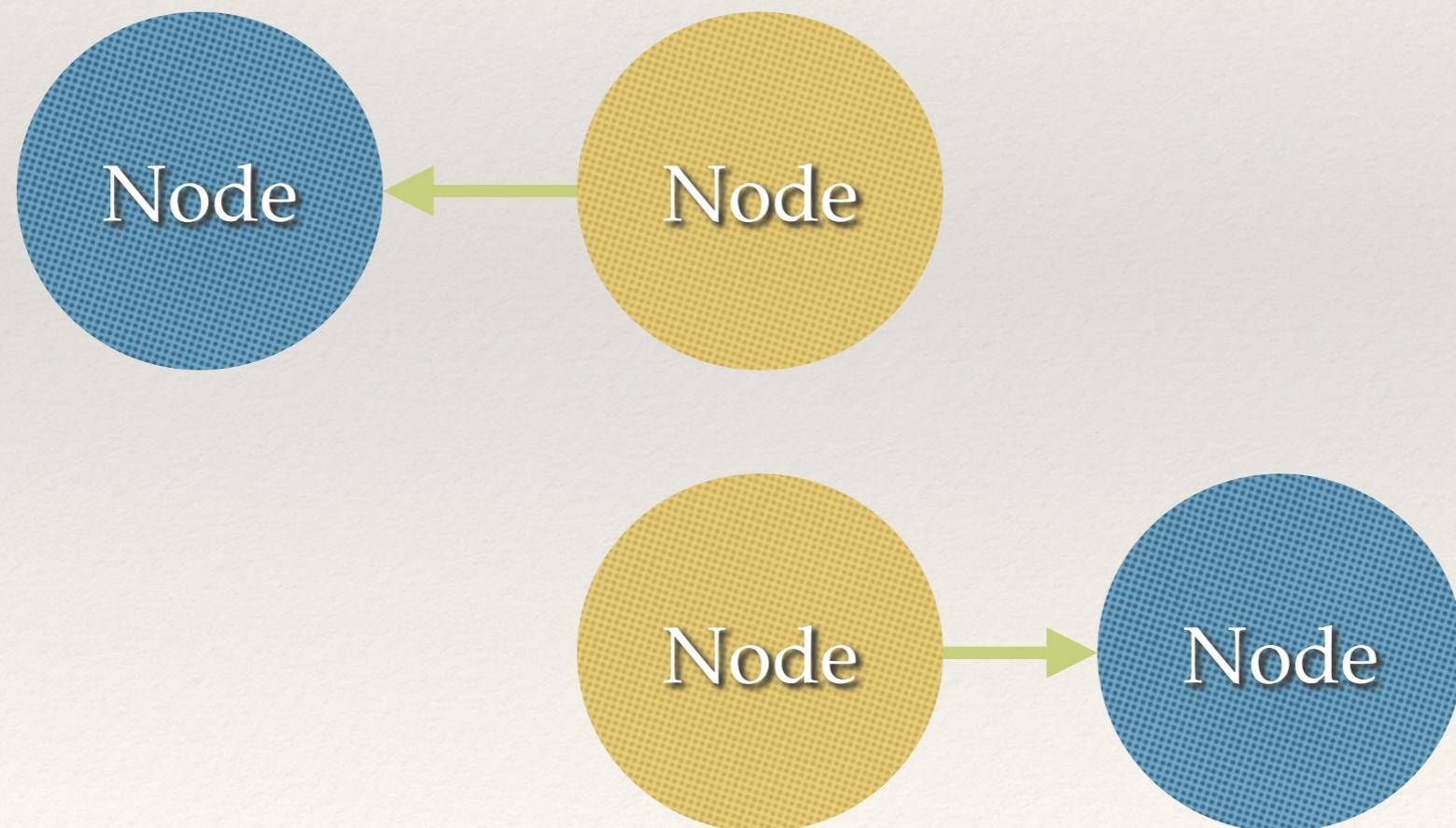
And relationships
reinforced this
behavior

Example: Focused Deterrence

Focused deterrence is built on
the idea that information can
be diffused through networks

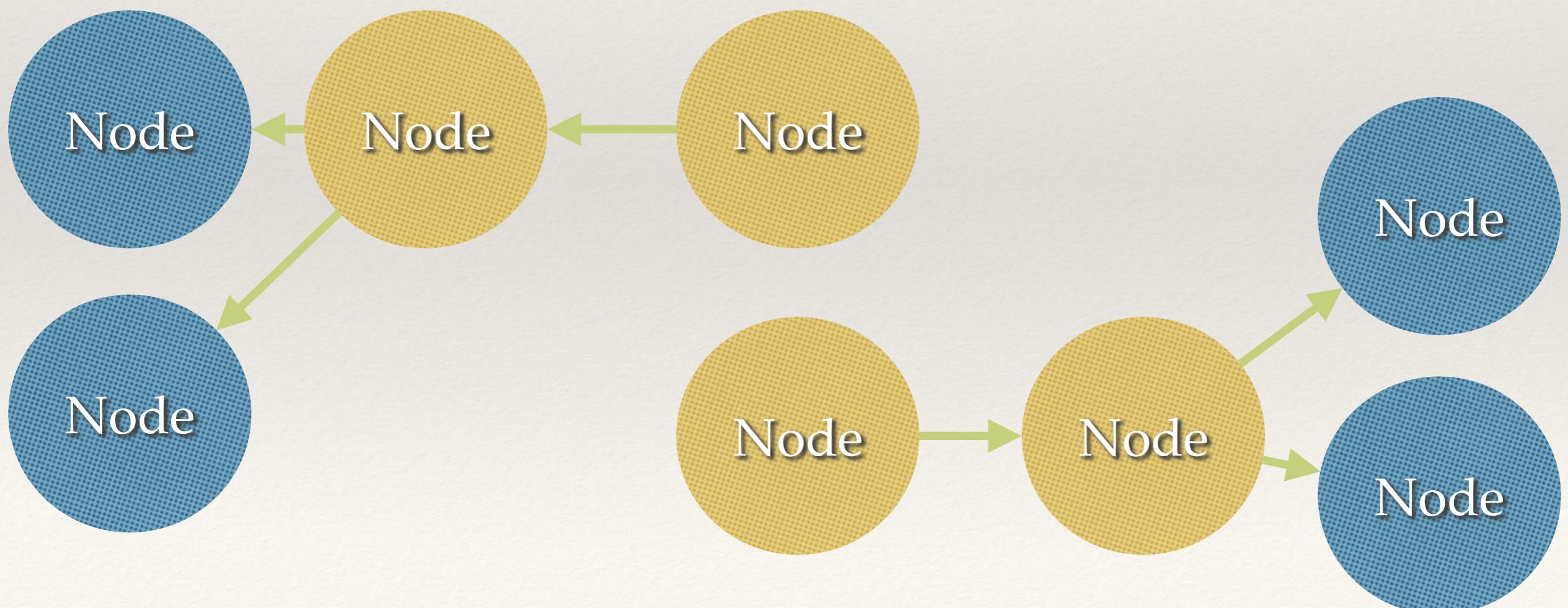
Example: Focused Deterrence

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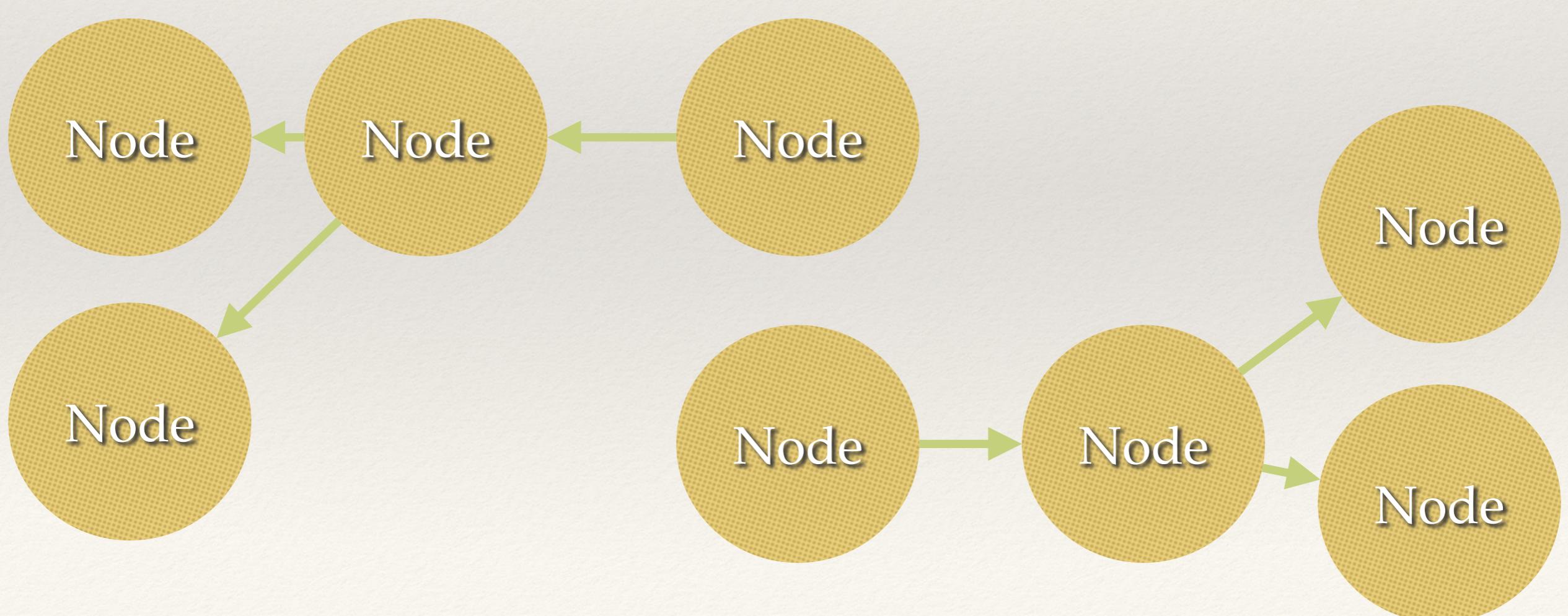


Example: Focused Deterrence

Nodes spread information
about a program
throughout the network



Example: Focused Deterrence



Why Networks Matters

- ❖ Criminal justice agencies often face situations that involve networks.
- ❖ By leveraging the tools of network analysis, agencies can gain new insights and develop novel approaches and solutions.

What is my stake?

What is my stake?

Two things...

1: Subject Matter Expertise



Online Master of Science in Crime Analysis

Help law enforcement solve crimes and learn to lead a crime analysis unit in the online crime analysis graduate program. You'll gain a strong understanding of the fundamental issues, strengths and limitations associated with crime analysis.

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Program Info

Program Title [Online Master of Science in Crime Analysis](#)

Course Info

Course Title	<u>Social Network Analysis</u>
Course Number	CRJ 507
Canvas Shell	https://canvas.asu.edu/courses/170143
Course Level	Graduate
Course Start-End	January 8 - February 27, 2024
Class Meeting Times	Asynchronous
Class Location	Online

Course Instructors

[Jacob T.N. Young](#) Associate Professor



Office Location: UCENT 649

2: A Responsibility of My Position

Introduction to Social Network Analysis – Online Course



A 3-Day Livestream Seminar Taught by
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Social Network Analysis

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2: A Responsibility of My Position

ASU Charter

“ ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

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It is my job to put my subject matter expertise into practice with community partners

Effective Services Discussion

- ❖ Evaluation of the Local Community Safety Partnership (LCSP) Pilot
- ❖ Independent Review of the Children and Young People Services Committee (CYPSC)

Thank you!

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