



# **AI in Low Resource Communities**

**MILIND TAMBE**

**Founding Co-director, Center for Artificial Intelligence in Society(CAIS)**

**University of Southern California**

**tambe@usc.edu**

**Co-Founder, Avata Intelligence**

# USC Center for Artificial Intelligence in Society (CAIS.USC.EDU)

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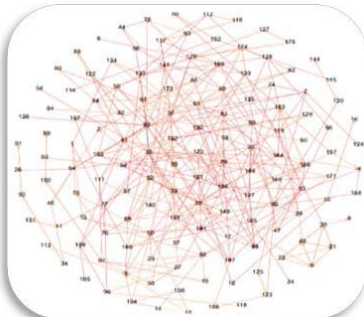


## USC Center for Artificial Intelligence in Society



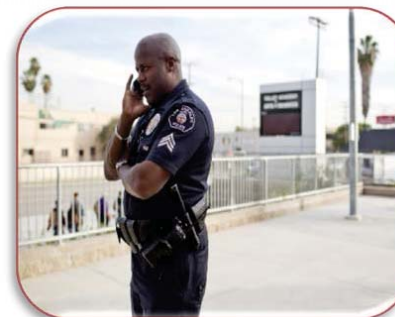
# Overview of CAIS Project Areas

## AI for Assisting Low Resource Communities



- Social networks: Spread HIV information
- Maximize influence under uncertainty
- Real-world pilot tests: Big improvements

## AI for Public Safety and Security



- Game theory: security optimization
- Solve mas
- Real-world



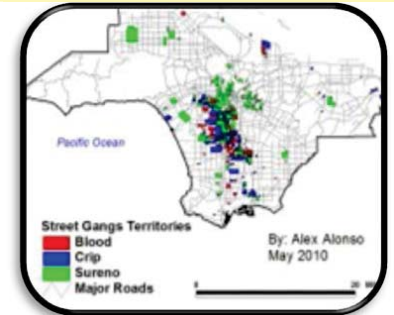
# Overview of CAIS Project Areas

## AI for Protecting Endangered Wildlife



- Machine learning/planning: Anti poaching
- Scale, boundedly rational poachers,...
- Real-world: Uganda, South Asia...

## Veteran mental health, Gangs, Climate Change

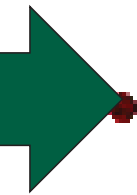


- Social networks, agent-based sims,...
- Behavioral models...
- Real-world: Research in progress

# Outline

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- Introduction



- HIV Information among homeless youth

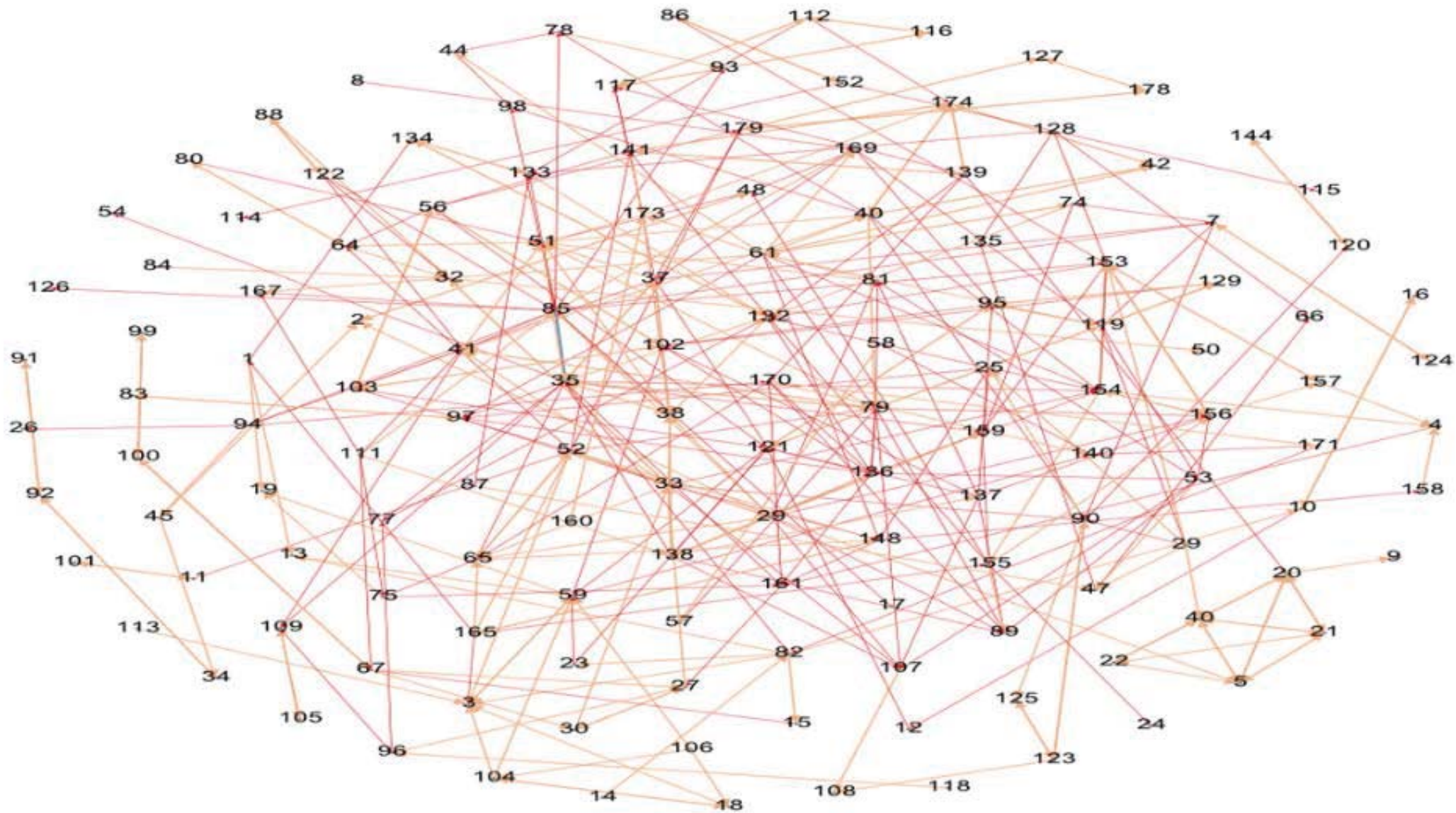
- Wildlife Conservation

# AI Program: HEALER

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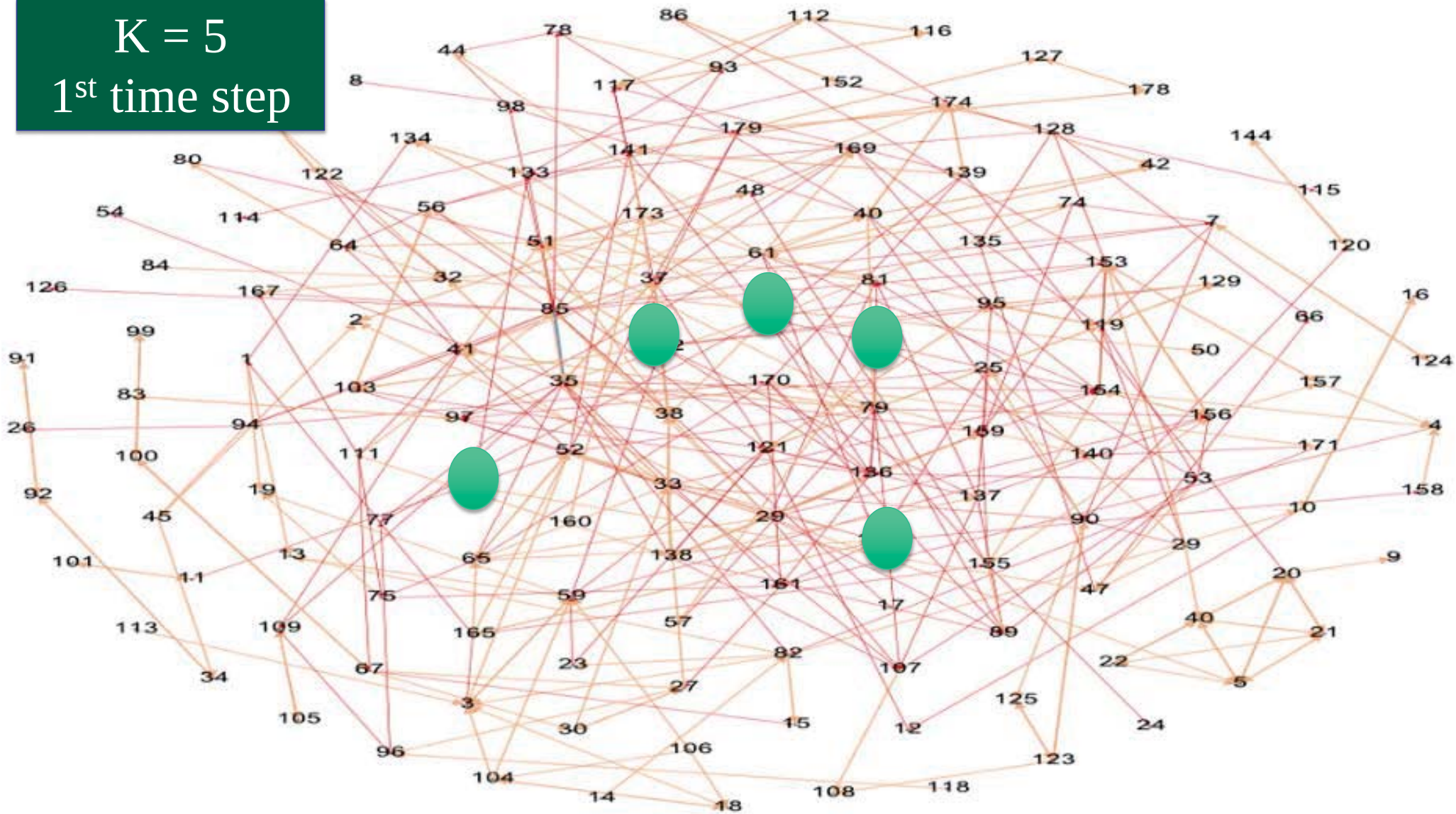


# HIV Prevention Programs: Using Social Networks to Spread HIV Information



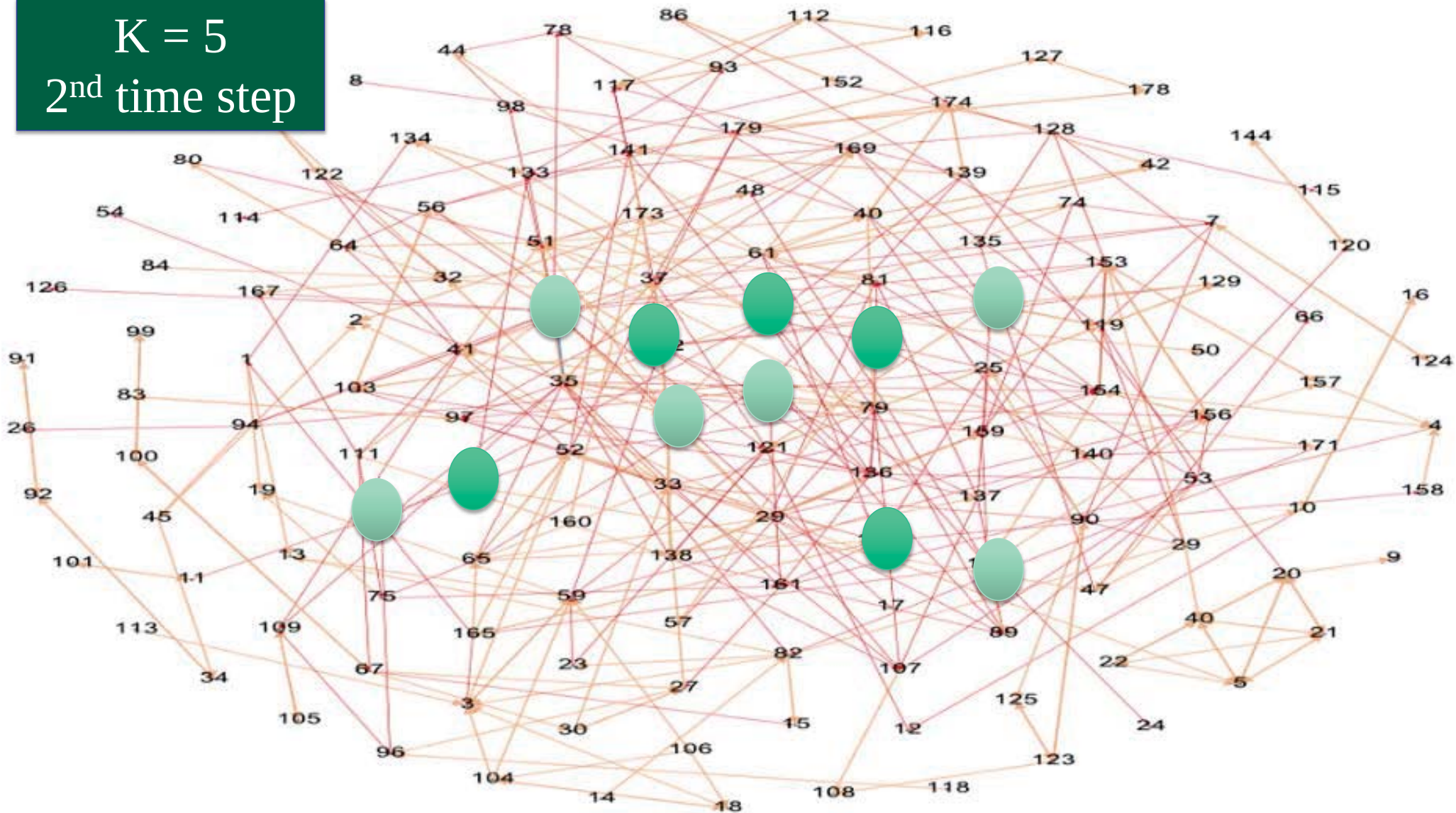
# Challenge: Adaptive selection in Uncertain Network

$K = 5$   
1<sup>st</sup> time step



# Challenge: Adaptive selection in Uncertain Network

$K = 5$   
2<sup>nd</sup> time step

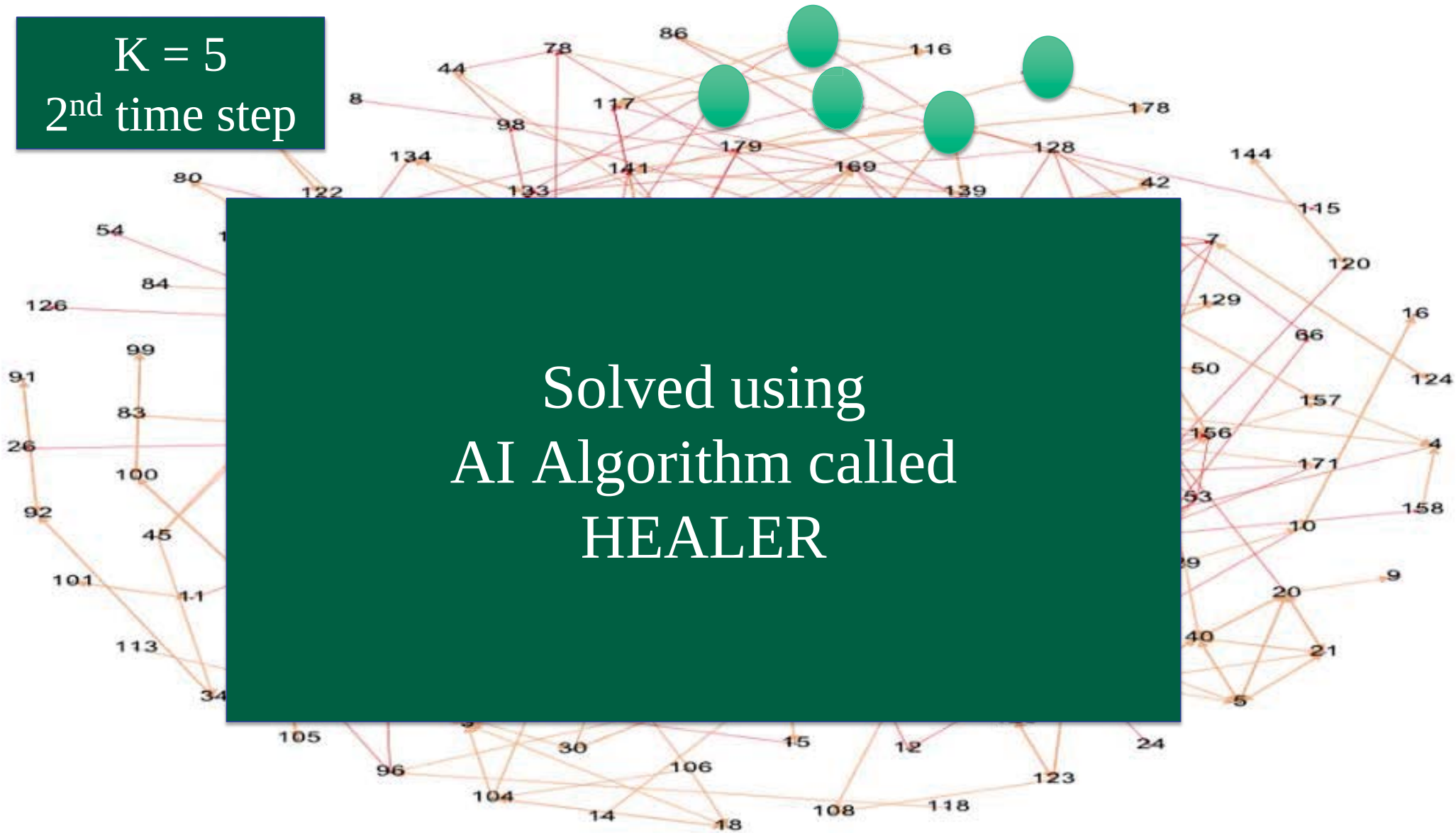


# Challenge: Adaptive selection in Uncertain Network

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$K = 5$   
2<sup>nd</sup> time step

Solved using  
AI Algorithm called  
HEALER



# Real Networks - Solution Quality

