Network and Regime Theory

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Introduction

Key Question

- How is power organised and contested in global communication networks?

Research Argument

- Connectivity is not neutral: network design shapes power relations

Hypotheses

- **H1:** Network Theory better explains contemporary digital politics because power increasingly comes from network centrality and control over structures
- **H2:** The liberal digital regime is challenged by digital sovereignty and state control
- **H3:** Control over infrastructures and platforms is becoming a greater source of power than formal institutions

Regime Theory

Definition

- International regimes = principles, norms, rules, and decision-making procedures that guide state behaviour

Core Assumption

- States cooperate through institutions despite the absence of a world government
- Regimes help solve collective action problems

Three Main Approaches

- **Functionalism** → Regimes reduce transaction costs and facilitate cooperation
- **Power-Based Approach** → Regimes reflect the interests of powerful states
- **Cognitive Approach** → Regimes emerge from shared ideas, beliefs, and expert knowledge

The International Telecommunications Regime

Telecommunications was governed through:

- National monopolies (PTTs)
- Bilateral agreements between states
- International coordination

Key Institutions

- International Telecommunication Union (ITU)
- Intelsat

Outcomes

- Stable and predictable global communications
- Limited competition through coordinated regulation
- Highly profitable international telecommunications system
- Often described as an international cartel-like regime

Monopoly System

The Network Thesis

- Telecommunications was viewed as a **natural monopoly**

Key Arguments

- **Economies of Scale**
  - One provider could operate the network most efficiently
- **Network Effects**
  - The value of the network increases as more users connect
- **Universal Service**
  - Monopoly profits could fund nationwide access and affordable services

Political Consequence

- Connectivity was treated as a **public utility**
- Monopoly governance was seen as more effective than market competition

The Transition

From Monopoly to Liberalization

Drivers of Change:

1) Technology

Digitalization, Fiber-optic networks

2) New Actors

Financial firms, Computer companies, Large business users

Institutional Shift

Trade institutions promote competition and market access

Result

- Liberalized telecommunications markets
- Foundations of the liberal digital regime emerge

Network Theory

Regime theory explains institutions.

Network theory explains:

How power operates through connections.

Networks are not neutral.

They can be designed to:

- Decentralize authority
- Centralize authority

Network Theory better explains contemporary digital politics because power increasingly comes from controlling networks

Power within networks

Power Within Networks

- Power derives from **centrality**
- Actors with many connections occupy strategic positions

Examples

- Internet backbone providers
- Major cloud platforms
- Search engines

Central Actors Act As:

- Gatekeepers
- Brokers
- Information hubs

Power over networks

Controlling Network Structures

Power means the ability to:

- Design network architecture
- Set technical standards
- Control access

Examples

- Domain Name Systems (DNS)
- Platform rules
- Digital infrastructure

The Liberal Digital Order

Controlling Network Structures

Principles of the Liberal Digital Regime

Based on:

- Openness
- Interoperability
- Multi-stakeholder governance
- Market liberalization

Institutions

- ICANN
- Internet Governance Forum (IGF)

Tension

- Decentralized model, but significant U.S. influence

Return of Sovereignty

Challenge to the Liberal Digital Order: Digital Sovereignty

Russia

- Sovereign Internet
- Greater state control over traffic

China

- Networked authoritarianism
- Export of digital infrastructure and standards

European Union

- Regulatory sovereignty
- GDPR

Link to H2

- Openness is increasingly challenged by state control

Platforms as Private Networks

Corporate Power in Digital Networks: Platforms as Private Subnetworks

Examples:

- Google
- Meta
- Amazon
- Alibaba

Control Over

- Algorithms
- Data flows
- Content moderation
- User behaviour

Link to H3

- Platforms create new forms of private governance

Conclusion

Regime Theory:

Connectivity depends on:

- International rules
- Institutions
- Political bargains

Network Theory:

Connectivity is also a source of power.

Actors compete for:

- Power within networks (centrality)
- Power over networks (architecture)

Conclusion

Main Takeaway

- The future of the Internet is not simply a struggle between open and closed systems.
- Rather, it is a struggle over:

Who controls connectivity, who occupies the center of networks, and who decides how networks are structured.

Final Discussion Question

- **Is the Internet becoming fragmented because states seek sovereignty, or because powerful actors are redesigning networks to concentrate control?**