Value Network Analysis

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What we will cover

• Importance of network models
• Definition of value networks
• Role-based visual notation
  – Phase changes in value networks
  – Collaborations and organizations
  – Value networks as workflow
• Analyzing value creation and impact
  – Value conversion
  – Asset and resource management
• Indicators and metrics
Network Literacy Is Increasing

Social graphs and network analytics are becoming core components of collaboration applications.

Discovering Social Networks

Who is Dating Whom?

Bearman, Moody, and Stovel, 2004
Image by Mark Newman
Formal Organization

Informal Organization - the Network
About Value Networks

Value Networks are sets of roles, interactions, and relationships that generate economic or social value.

Any purposeful organization or activity can be understood as a value network.

Value Network Analysis:
• Defines roles and how they interact as a network pattern
• Makes intangibles visible, negotiable, and manageable.
• Can model complex value flows and human collaborations
How do humans organize their work?

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Value Network Mapping

Nodes represent participants (usually real people) and the Roles that they play.

Solid lines show tangible, formal or contractual, deliverables being transacted.

Dashed lines show intangible or informal value being provided.
Service Level Agreements (Pre service)

- Customer Technology Mgr
- Field Manager
- Field Technician
- Service Coordinator
- Customer Acct Mgr
- Service Level Agreement
- Performance Expectations
- Service Contract
- Technical Operations Oversight
- Product Expert
- Advisory
- Customer Info
- Escalation Alert
- Notice of Escalation
- Completion Report
- Escalation Action
- Status of Escalation
- Completion Confirmation
- Escalation Notification
- Weekly Report
- Status Concern
- Feedback
- Assistance
- Advisory
- Escalation Status
- Request Escalation
- Request Help
- Request Incident Info
- Request Status
- Request Information
- Escalation Alert
- Service Delivery
- Request Information
- Escalation Alert
- Completion Report
- Notice of Escalation

Escalation - big problems

- Customer Technology Mgr
- Field Manager
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Happy Path - no problems

Merging networks
Organization Role Hierarchy

A

A1  A2  A3  A4

B

B1  B2  B3

C

C1  C2  C3

D

D1  D2  D3

Role

Collaboration

Even in Organizations

W. H. Smith,
Graphic Statistics in Management
McGraw-Hill Book Company,
New York, ed. First, 1924
Another View of Organization Hierarchy

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Converting to process or workflow

1. Map the Value Network
2. Sequence the deliverables
3. Define swim lane roles
4. Overlay value network map on swim lane
5. Detail as workflow

Detailed Value Network Workflow
Suggested revised swim lane roles:

Conduct Exercise to Evaluate Organizational Response Capacity

Approver
A Scope Determiner
B Timeline planner
C Meeting planner
D Logistics coordinator

Coordinator or Expert
E Exercise Planner
F Exercise designer

Recorder
G Exercise documentor
H Exercise reviewer

Participant
J Actors
K Players
L Simulators

Value Network Mapped to Swim Lane

Conduct Exercise to Evaluate Organizational Response Capacity

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**Revised Process Completed**

**Conduct Exercise to Evaluate Organizational Response Capacity**

<table>
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<th>Approver</th>
<th>Contributor</th>
<th>Designer or Expert</th>
<th>Recoverer</th>
<th>Participant</th>
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**Commercial Airplane Operations Center**

**From System Dynamics to a Value Network View**

Courtesy Bob Wiebe, Dan Compton, Glenda Turner

Structural View

"Hot spots"
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How People Create Value

By assuming or creating roles ... to convert tangible and intangible assets into deliverables ... that can be conveyed to other roles through the execution of a transaction. In turn, value is realized by companies when they convert inputs into gains.

Value Conversion

The emergent purpose of the value network is revealed through the pattern of roles and value exchanges that support an economic or social output. Sustainability depends on a consistent high level of both transactional and network perceived value.

Scalable

Global Action Networks
Regional and Local Networks
Business Networks
Task Networks Capabilities
Communities
Organizations
Workflow
Realizing Value for Ourselves

Impact Analysis

Any asset management, capabilities or competencies scorecard can be used for this analysis!

Possible indicators include Resilience, Asset Management - Asset Impact, Reciprocity, Risk, Structure and Value, Agility, Stability
Creating Value for Others

Value Creation Analysis

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How well is the Role leveraging financial and non-financial assets to create this value output?

Indicators used for this determination can be as simple as a three-point high/medium/low subjective value. Or they can be much more involved and extend to hard indicators such as financial costs, person-hours required, equipment costs or system demands, efficiency factors around speed and quality, and external infrastructure required or partnerships costs.
Industry, Social Citizenship, and the Environment

- Are the value outputs viewed as positive contributions or innovations for your industry?
- What is the effect of the value outputs on society - do they contribute to a more hopeful future and an increase in social good?
- What is the environmental footprint of a particular value output?
A Network View of the Work Itself

Complex Procurement Activity
Showing both tangible and intangible value creation!

The Hope

The value network perspective helps generate the true wealth that makes life worth living.
Our Company

Applications for value network visualization, analysis, optimization

Unique value network analytics and predictive intelligence

Expert guidance, training, services

Value Network Applications (SaaS)
Project Support
Training
Expert Services

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