Trust and Influence in the Information Age: Operational Requirements for Network Centric Warfare

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The views expressed in this paper are those of the author and do not reflect the official policy or position of the Department of Defense of the U.S. Government.
The Issue: How Can Leaders Prepare for the Information Age RMA?

- The Information Age Drives a Revolution in Military Affairs (RMA)
  - Information technology (IT) increases access, amount, and speed of information and information flow
  - This leads to changes in how we live, work, play, and fight

- The Information Age is Also Empowering Our Enemies
  - Conflicts come in all levels from enforcing sanctions and capturing terrorists, to full-scale theater operations and nuclear war
  - The Military requires agile and adaptable command and control structures to deal with the uncertainties of new threats

- What to Expect From the Information RMA
  - Decision Makers will be Younger
  - Organizational Standing Becomes Less Relevant
  - Lower Ranking People Will Have More Power
  - Innovative Projects will Surface without Certification

Are Leaders Prepared for the New Capabilities?
Overview

Background
- The Computer Technology Timeline and The CommTech Model

Capitalizing on the 21st Century Network Organization
- Influence as a Leadership Strategy
- Building Operational Trust
- Fostering Network Enterprises
# Background

## The Communications Technology Timeline

<table>
<thead>
<tr>
<th>Timeline</th>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
<th>2000s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Computer Technology</strong></td>
<td>Mainframe + terminals</td>
<td>Personal Computers (PCs)</td>
<td>LAN of PCs</td>
<td>Internet and Intranets, DSL, Access to the Web</td>
</tr>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
<td><img src="image3.png" alt="Diagram" /></td>
<td><img src="image4.png" alt="Diagram" /></td>
<td></td>
</tr>
<tr>
<td><strong>Characteristics</strong></td>
<td>Few actual “thinkers” Queued processes Long timelines</td>
<td>Isolated decision-making, No connectivity</td>
<td>Integration &amp; synergy within local networks Weak external connections</td>
<td>Peer-to-peer relationships Easy access Exponential capability</td>
</tr>
<tr>
<td><strong>Military Organization, Force Structure, and Decision Making</strong></td>
<td>Centralized, slow, few decision-makers per capita (lots of troops)</td>
<td>Complete push to decentralization, empowerment, can’t work together</td>
<td>Federated but connected at central points, Those top central points not well connected to other top centralized points</td>
<td>Decentralized DM at individual level. Shared information. Multiple redundant paths for information sharing.</td>
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<td><img src="image5.png" alt="Diagram" /></td>
<td><img src="image6.png" alt="Diagram" /></td>
<td><img src="image7.png" alt="Diagram" /></td>
<td><img src="image8.png" alt="Diagram" /></td>
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</tbody>
</table>

**Note:** Computer Programs = Decision-Makers in the Communications Technology Domain

MF = Mainframe
LS = LAN server
DSL = Digital Subscriber Line
LAN = Local Area Network
Background

The CommTech Model

<table>
<thead>
<tr>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
<th>2000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralized control in DM.</td>
<td>Focus on Training and practice to increase speed</td>
<td>Herded the groups. Centralized control within major organizations. Provided vector</td>
<td>Complex interdependent operations</td>
</tr>
<tr>
<td>&quot;Really slow&quot;</td>
<td>&quot;Synergy&quot;</td>
<td>&quot;Power to the Edge&quot;</td>
<td></td>
</tr>
<tr>
<td>Lack of hard control</td>
<td>Empowerment. Total Quality Management</td>
<td>Small organizations really honed their skills. Great improvements in tactics, not in strategy</td>
<td>Needs proper guidance and clear command intent</td>
</tr>
<tr>
<td>&quot;All Magnitude – no Vector&quot;</td>
<td></td>
<td></td>
<td>&quot;Power to the Edge&quot;</td>
</tr>
</tbody>
</table>

Leadership Style

Centralized

Decision-Making

Centralized

Decentralized
Capitalizing on the 21st Century Networked Organization

- Influence as a Leadership Strategy
- Building Operational Trust
- Fostering Network Enterprises
Influence as a Leadership Strategy

- **Leaders Must Create the Vector**
  - Capabilities come from the bottom up (Magnitude)
  - Leaders must provide the direction

- **Communicate a Clear Consistent Message**
  - Commit to the vision daily

- **Instill Ethics in Decision-Making**
  - The new generation of soldiers will not just follow orders, they will make decisions

- **Shift to a Mentor Mindset**

- **Turn “Iron Majors” into “Golden Majors”**
  - Have them sell your story to the troops

- **Encourage Innovation**
  - Give subordinates the means and authority to find solutions to their problems

- **Encourage Crossflow**
  - Military stovepipes aren’t the problem, it is the lack of venting between them that causes problems
Influence as a Leadership Strategy

- Influence Techniques – Specific Tools for Soft Power
  - Start Early
  - Provide a Reason
  - Build a Cohesive Team
  - Gain Commitment
  - Benefit from Reciprocity
  - Appearance Builds Respect
  - Choose the Technique to Fit within Context
Building Operational Trust

- Trust is a bet that entities which you cannot control will meet expectations that are favorable to your cause.
- Operational Trust is the aggregate trust required from every person and earned from every entity to accomplish a mission or endeavor.

Network Centric Warfare Relies On Interdependency For Its Success
Interdependency Requires A Level Of Operational Trust
Three Steps to Increasing Operational Trust

Step 1. Determining the Need to Trust: *Do I have to make a bet?*

- Importance of my task
- Necessity of dependency
- Amount of Dependency

Step 2. Assessing the Risk: *What are the stakes of the bet?*

<table>
<thead>
<tr>
<th>RISK MATRIX</th>
<th>Probability of Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity of Negative Consequences</td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>Minor</td>
<td>Green</td>
</tr>
<tr>
<td>Major</td>
<td>Green</td>
</tr>
<tr>
<td>Catastrophic</td>
<td>Yellow</td>
</tr>
</tbody>
</table>
Three Steps to Increasing Operational Trust (cont)

Step 3. Changing the Odds: *Can I make a safer bet?*

- Increased Situational Awareness (SA)
- Real-time Verification
- Verification Afterwards
- Rules / Roles / ROE
- Amount of Control
- Past Experience with Trustee
- Indirect Reputation
- Common Cause / Objective / Priority
- Likelihood of Future Interactions
Fostering Network Enterprises

- Get the Technology Down to the Lowest Levels
- Build Multiple Paths for Reliable Communications
- Create Joint Mission Capability Packages
- Cultivate a Dedicated Infrastructure Force
- Simplify the Process for Innovation
- Visit the Squadron Bar

Quality Networked Force → Multiple, Simultaneous Decision and Actions → Efficient and Effective Operations
Conclusion

- The Information RMA will Lead to Decentralized Decision-Making and a Greater Need for Trust and Influence

- Leaders Must Create the Vector

- Decisions Based on Reasoned Trust will Increase Efficiency and Effectiveness in Operations

- Foster Network Capabilities to Improve Performance at all Levels
Questions???

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