



# Enterprise 2.0 Conference

Boston – June 12, 2008



## Virtual Teams 2.0, 3.0, 4...

Jessica Lipnack and Jeffrey Stamps, PhD  
NetAge, Inc.

[www.netage.com](http://www.netage.com)

+1.617.965.3340



# What We're Doing Here Today

Session Title: Virtual Teams 2.0, 3.0, 4?

Date: 6/12/2008

Time: 10:45 AM

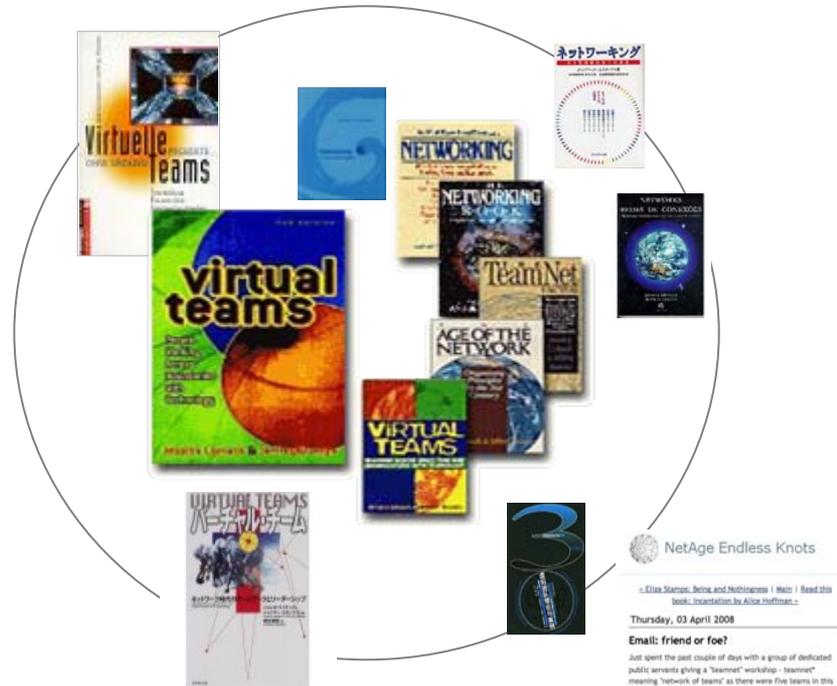
Session Description:

- Virtual teams have always been in the 2.0 world, adding content to their shared online spaces, carrying on conversations after the lights have gone out, trying out new media. But the explosion of 2.0 technologies - and the advent of a generation that knows more about how to work online than their bosses - has altered (and will continue) to alter the virtual team landscape. What are the simple ideas that can slice through the complexity facing virtual teams? How can they easily form networks? How can they navigate among the multiple organizations that they serve? Hear the latest from the people who coined the term "virtual teams".
  - Who Are We?
  - Global Collaboration - 2010 and beyond
  - Virtual Teams 2.0 Combine Methodology and Innovation
  - Team Rooms and Real-World Complexity
  - Mapping Organizations as Networks
  - Global Collaboration 2.0: When OrgScope and Wikis Combine



# Who Are We?

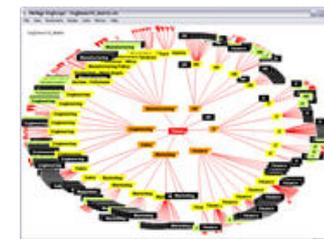
## Writers



## Consultants



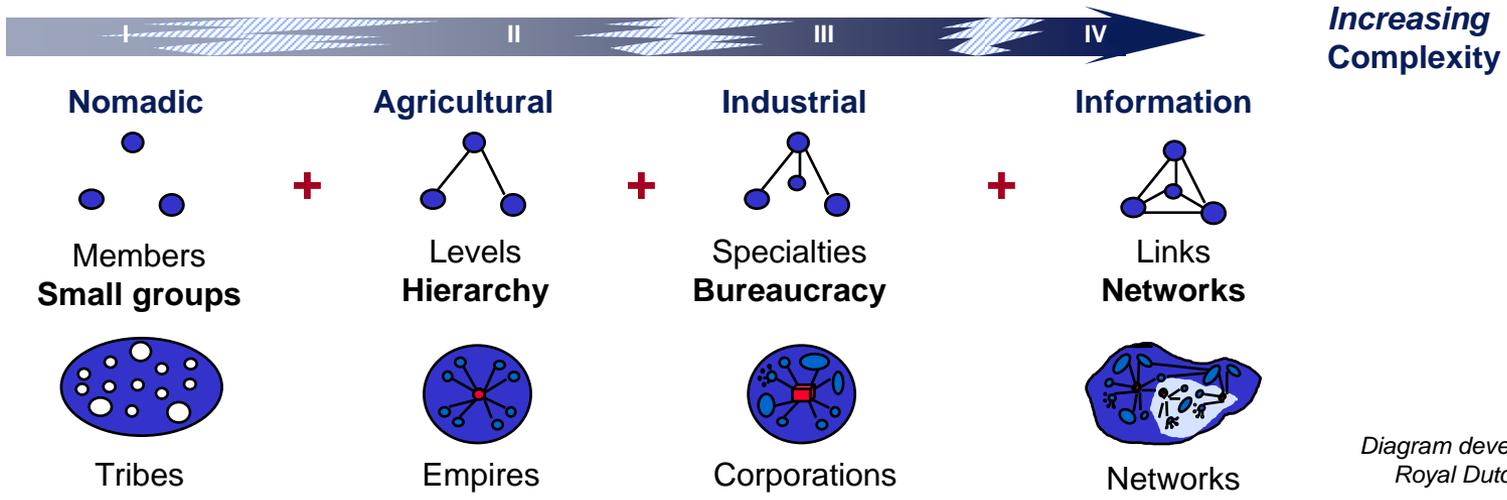
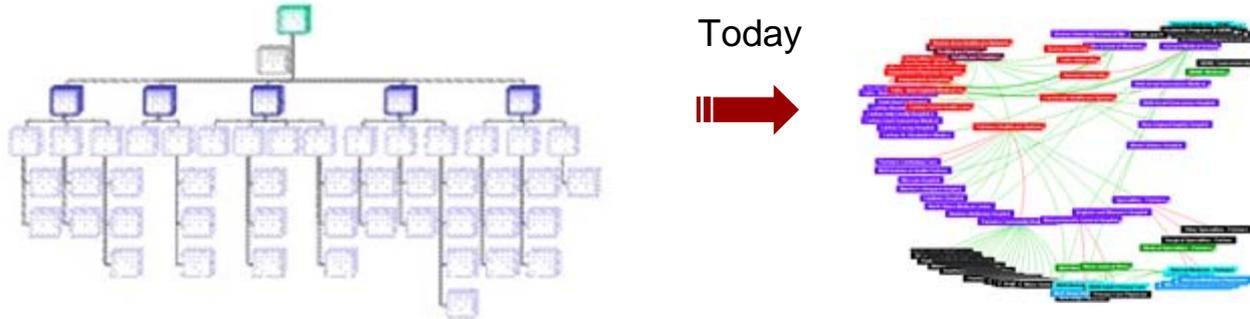
## Software



OrgScope



# From Tribes to Networks: Organizations Have Never Been More Complex

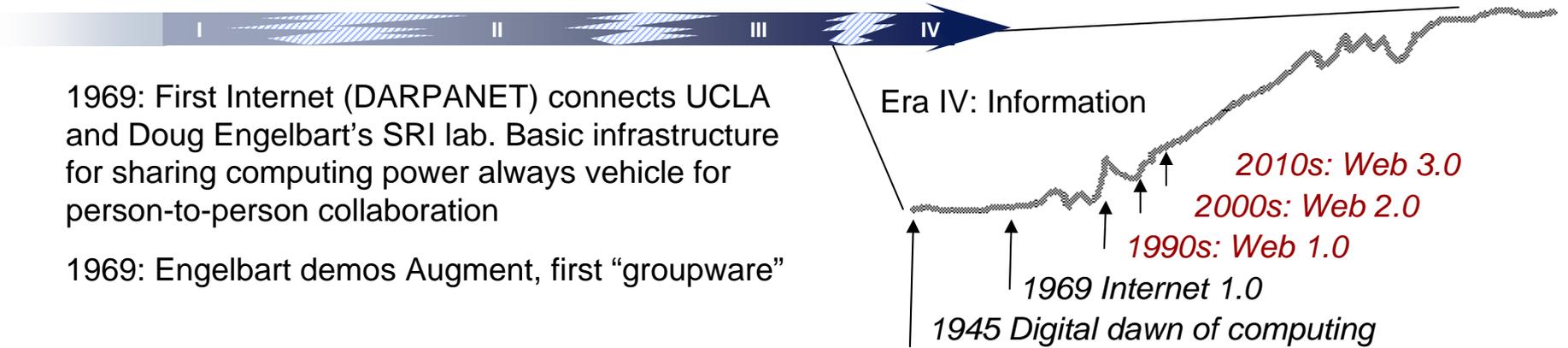


*Diagram developed with  
Royal Dutch Shell*

*Internal complexity must match or exceed external complexity  
("Requisite Variety" - Ross Ashby)*



# From Earliest Moments, Net User-Generated



1969: First Internet (DARPANET) connects UCLA and Doug Engelbart's SRI lab. Basic infrastructure for sharing computing power always vehicle for person-to-person collaboration

1969: Engelbart demos Augment, first "groupware"

1974-1991: Murray Turoff and Starr Roxanne Hiltz develop and launch EIES (Electronic Information Exchange System) forerunner of online discussions, forums, and communities of practice

1980s: Communities open online: Metanet, The Well, NE Commons, PresbyNet; discussion platforms like Participate, eForum; services like CompuServe, AOL

1980s: Internal forums and team room experimentation in high-tech companies like Digital Equipment Corp, HP, IBM

1986: LISTSERV, first electronic mailing list software application, sparks vast numbers of newsgroups and bulletin boards

1991: Tim Berners-Lee posts his tools for World-Wide Web on newsgroup. In a moment, emergent Information Era tips into growth phase towards global dominance. "Web is still in its infancy," Sir Tim Berners-Lee tells BBC, [April 2008](#)

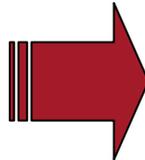


# Profound Shift in Way We Work in Just 10 Years

*“We need to Equip Soldiers to engage the new media. If we educate them and encourage them, we need to trust them enough to give them the tools to properly tell/share their stories.”*  
--“Changing the Organizational Culture (Updated),” by Frontier 6, [Small Wars Journal Blog](#), January 1, 2008

## From

- Face-to-face
- Go to a meeting
- Snail mail
- Attachments
- Filing cabinets
- Libraries
- Water cooler
- War rooms
- Memos and newsletters
- “I’m out”
- “I’m in”
- Wired
- 9-5



## To

- Conference calls (and Facebook)
- gotomeeting.com
- Voicemail to email to “no mail!”
- Links
- Files in folders
- Search, Wikipedia, Intellipedia
- Online communities
- Virtual rooms
- Wikis, blogs, chat, podcasts, vlogs
- BRB
- IM
- Wireless
- 24/7 (Follow the Sun)



# Some Faces of Web 2.0

**ZOETROPE.COM**  
ONLINE HOME OF AMERICAN ZOETROPE AND THE VIRTUAL STUDIO

**Z MAIL**

From	Subject	Sent
Ronald F. Currie Jr	re: this is so awkward	05/13/2008
T. J. Forrester		05/12/2008
T. J. Forrester		05/12/2008
Xujun Eberlein		05/2008
Don Capone		05/27/2008

**Writers Site**

**OFFICE**

	Day	Week	Latest
Poetry and Flash (Rusty Barnes)	2	12	David Woodruff 3 hours ago
The Royalty Guild (ZoBooks Authors) (Anikó J. Bartos)	0	0	Kim McDougall 05/12/2008
Need a Literary Agent? I Can Help. (Terri Brown-Davidson)	6	55	Robert McClure 7 hours ago
Publishing the Book (Ronald F. Currie Jr)	17	103	Ronald F. Currie Jr 21 minutes ago
The Really Ugly Duckling (Xujun Eberlein)	8	30	Xujun Eberlein 18 hours ago
Five Boroughs (Anne Elliott)	0	0	Linda DiGusta 05/14/2008

Virtual organization - Wikipedia, the free encyclopedia - Mozilla Firefox

**WIKIPEDIA**  
The Free Encyclopedia

**Wikipedia**

Virtual Organization Management, a modern discipline pioneered by Peter...

Wikipedia

NetAge Endless Knots

Monday, 19 May 2008

**"If social networks were like cars"**

dash had been writing about this for some time as part of her research on how the young 'uns are taking to the web, with distinct preferences for which social networks they join based on class, ethnicity, and the like. And, no, it's not a fan - dash is never sane all the time. This post on **Team Collaboration Practices in Networked Publics** links to her recent talk for the marketur Foundation, and lists the high points of her research, very interesting and mandatory reading for those of us following the complexities of the online world.

Friday, 17 May 2008

**Lilacs**

Blog

Profile edit Friends Inbox (5)

home account privacy logout

**News Feed**

Michelle Tandoc-Pichereau reviewed House. Awesome finale! ★★★★★

Rebecca Cantrell is putting in edits. 10m ago

Tina Kulow is off. 22m ago

**Facebook**

Facebook

**YouTube**  
Broadcast Yourself™

Home Videos Channels

what mom says

YouTube

**YouTube**

Videos Channels

Uploaded: Anytime

William Tell Overture Mom  
This is what mom would say to her kids in one day condensed in 2.5 min...William Tell

The Mom Song Sung to William Tell Overture with Lyrics  
mom, the mom, the mom, the mom, the mom!! Ta da!!!!...funny mom overture william tell 24 hour what (more)

**The Caucus**  
The New York Times Politics Blog

Obama is First in Their Second Life

March 11, 2008, 9:12 pm

Obama'08

Second Life

**craigslist** boston

housing jobs  
housing accounting+finance  
shared admin / office  
students / temporary arch / engineering  
housing wanted art / media / design  
rideshare housing swap biotech / science

search craigslist

for sale

event calendar

strict women men misc casu miss rants

The central feature of the space is a stage decorated with repeating Hillary logos and surrounded by simplistic red, white, and blue, bleacher seating. The stage has a large photo of Clinton as a backdrop with lots of spotlights in front of her. I almost wondered if it was designed by the creators of the 1984 video.

**Second Life**



## Virtual Teams 2.0 Means (at least) Two Big Things

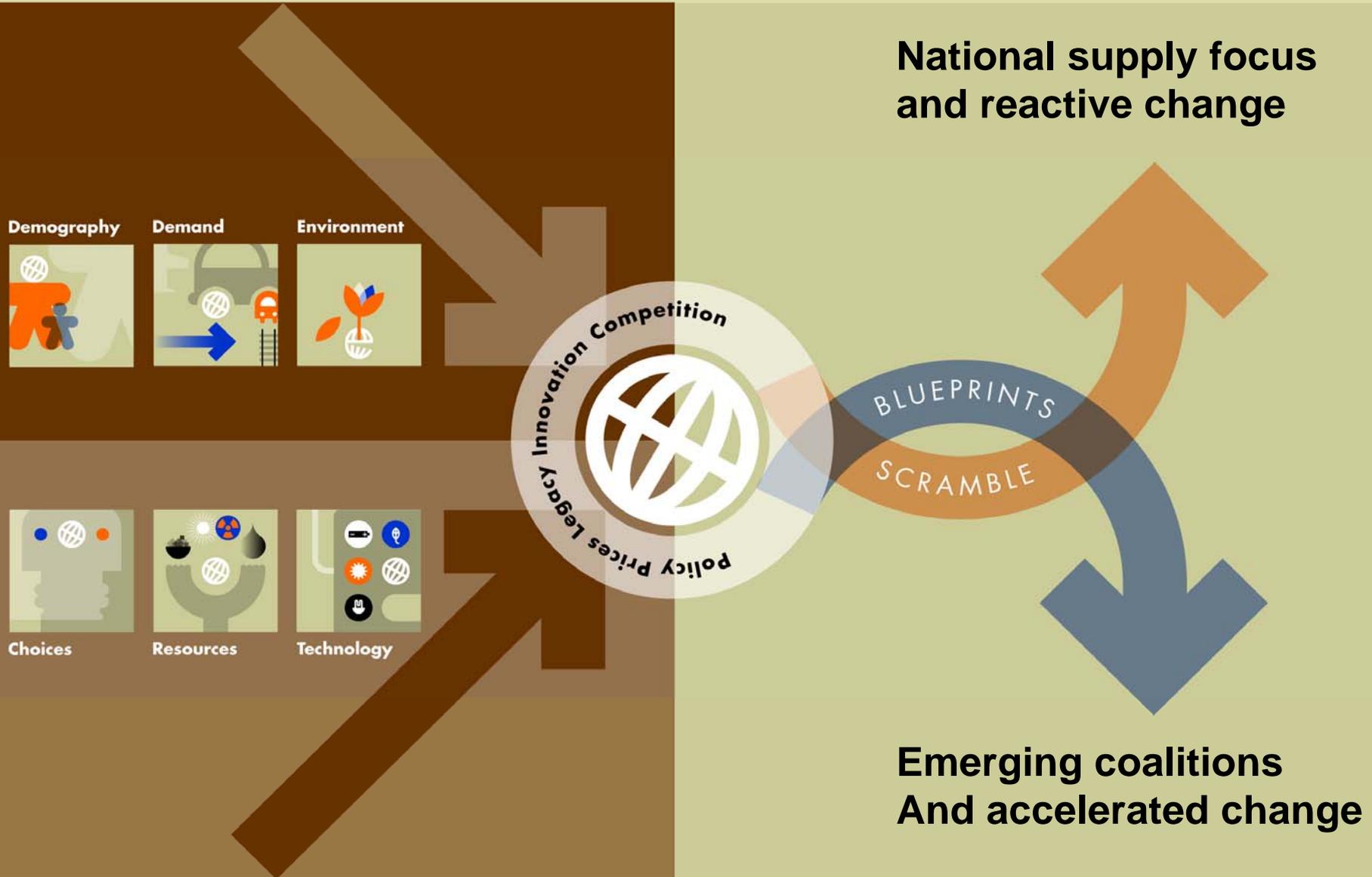
- (1) Virtual Teams 2.0 enhanced with web 2.0 technologies
  - Essence of web 2.0 = user-generated content and relationships — social, work (or both)
  - Teams generate core knowledge of organizations
    - Have always had member-generated stuff and real-time exchanges
  - Teams naturally 2.0-ready at heart of healthy Enterprise 2.0
- (2) Virtual Teams into second generation virtual team rooms
  - First generation (1969-1990s) comprised isolated online team room experiments for high-value projects
    - As web exploded, model proliferated into vast numbers of individual team rooms
    - Wide range of platforms with little common internal architecture or attention to virtual team processes
  - Currently in transition to second generation of **networked** virtual teams
    - Set in larger environment of many collaborating teams within and between organizational networks
- By happy coincidence, each meaning reinforces other
  - Web 2.0 technologies enable full-spectrum collaboration across organizational, team, and individual scales
  - Second-generation virtual teams are “organizing middle”
    - Ties together large-scale virtual organizations with power of individual person



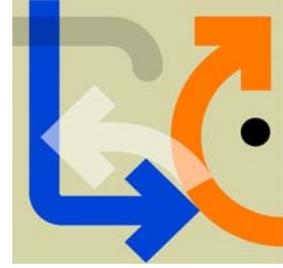
# Urgency for Upgrading Global Collaboration to 2.0 at all Scales

- Horizon 2050: Humanity will have won or lost battle to save planet from worst-case global warming scenarios
- Shell has two “scenarios” for 2050: **Scramble** and **Blueprints**
  - **Scramble** = “National supply focus and reactive change”
  - **Blueprints** = “Emerging coalitions And accelerated change”
  - Shell calls for transition via collaborative “Blueprints”
- Window for making right collective decisions: Now-2014
  - Given extremely long timelines for energy and infrastructure investments to come online, near-term decisions will determine long-range outcome for 2050
  - Next **five years** critical for collaborative effort on vast collective scale
  - Need to support rapidly acceleration of cross-boundary work in increasingly complex contexts to innovate, negotiate, and operate sustainable world

# Shell energy scenarios



# In summary – what we have learned

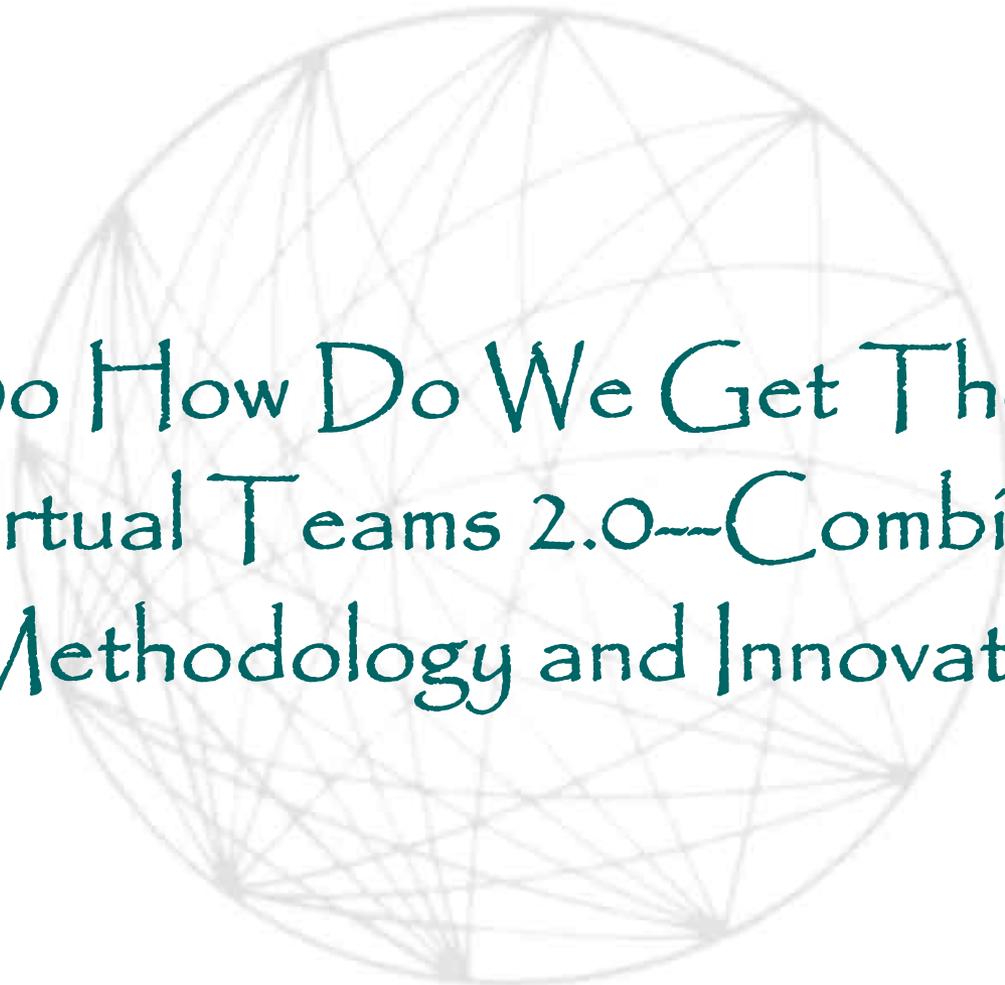


- The three hard truths are **very** hard
  - Surge in energy use
  - Supply will struggle to keep pace
  - Environmental stresses are increasing
- Transition is both inevitable and necessary
- Technology plays a major role, but no silver bullets
- Political and regulatory choices are pivotal
- **The next 5 years are critical**

*Red and bold emphasis added*

**Tackling all three hard truths TOGETHER is essential for a sustainable future**





# So How Do We Get There? Virtual Teams 2.0--Combining Methodology and Innovation

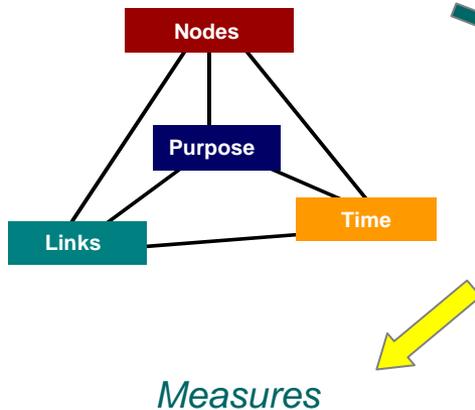


# Methodology Integrates Team Development and Online Workspace

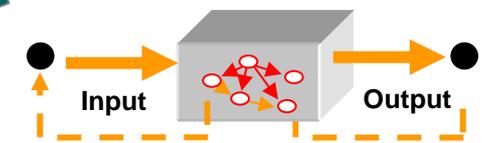
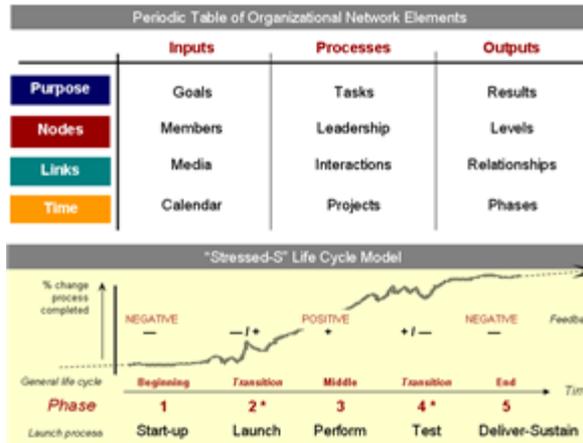
Network Model

Concepts

Systems Model



Framework: Structure and Process



Measures

Technology

Instrument for Assessment and Diagnosis

Architecture for Online Rooms

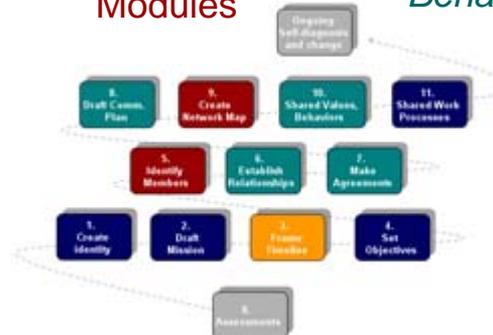
Virtual Team Assessment

See to high, middle, or low potential

	1	2	3	4	5
<b>Purpose</b>					
<b>People</b>					
<b>Links</b>					

Team Development Modules

Behaviors



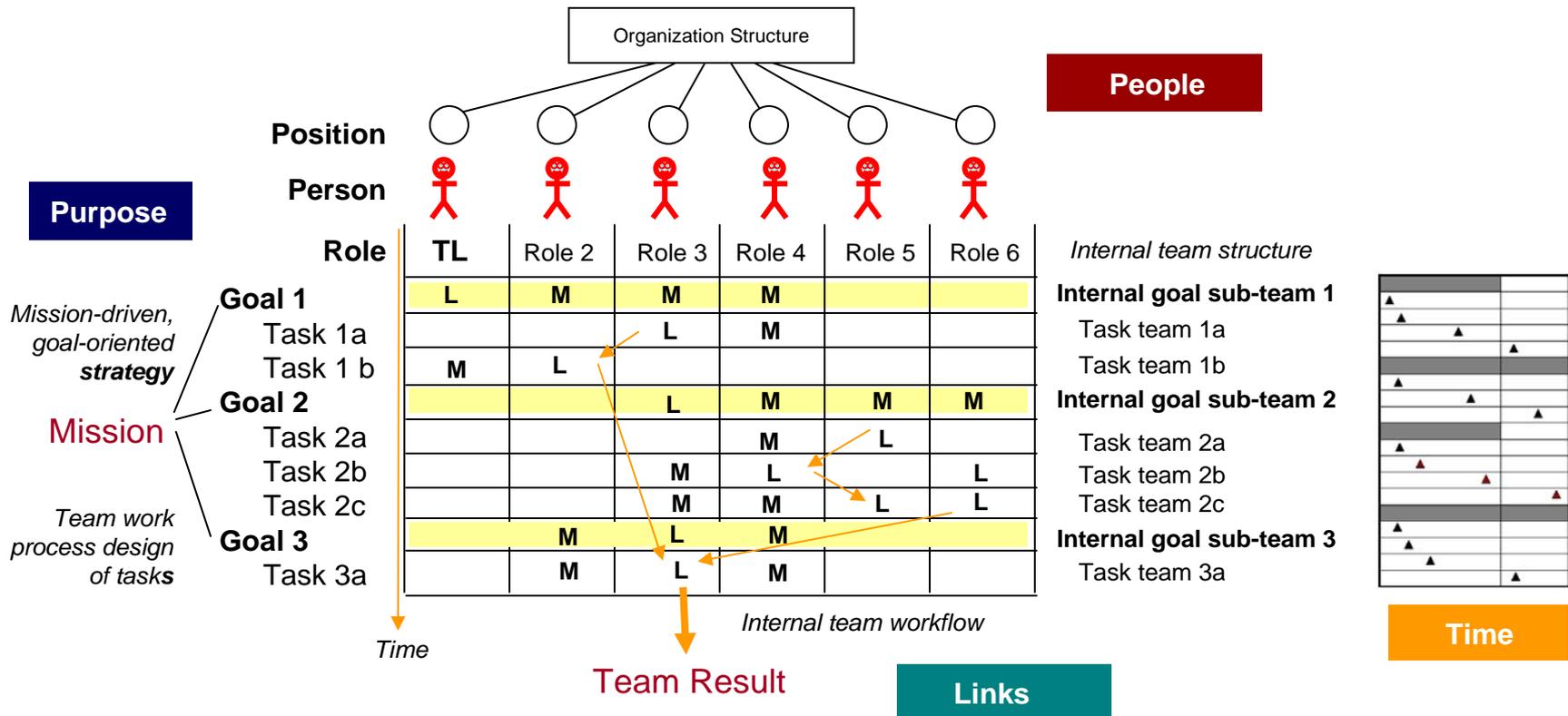
General	Function	Team Specific	
Communications	F1	T1	T5
Purpose	People	F2	T2
Time	Links	F3	T3
Content	F4	T4	T8



# Recognize Role-Based Networks Inside Teams

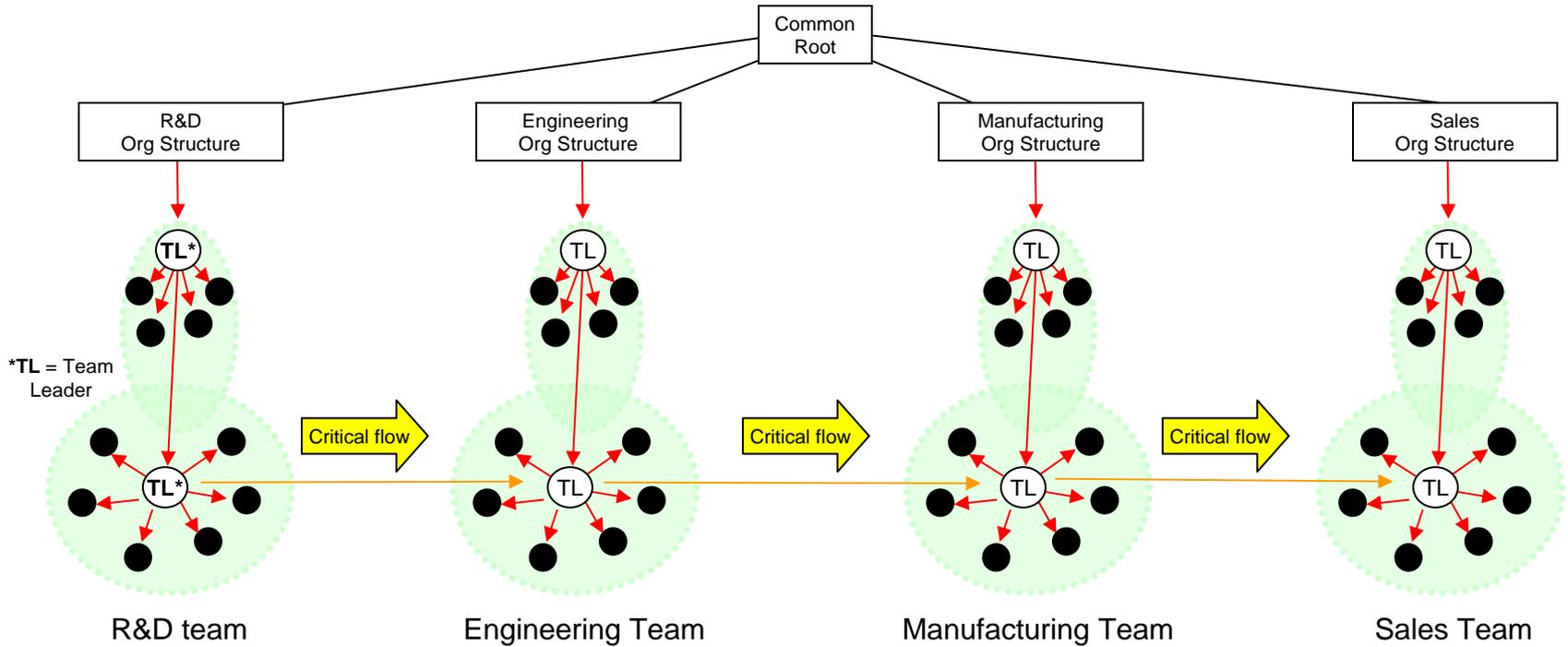
Teams are source and repository of organization's "how-to" practical knowledge

Enhanced Deployment Flow Chart connects Purposes with People in Complex Multi-level Organizational Structures





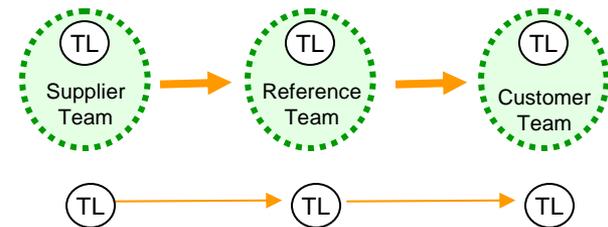
# Understand Critical Path of Workflow Across Network of Teams ("Teamnet")



Workflow links map flow between teams; adds up to overall input-output system of organization as whole

Complexity of team's internal workflow simplified as external process flow between two team leaders, representing respective supplier-customer teams

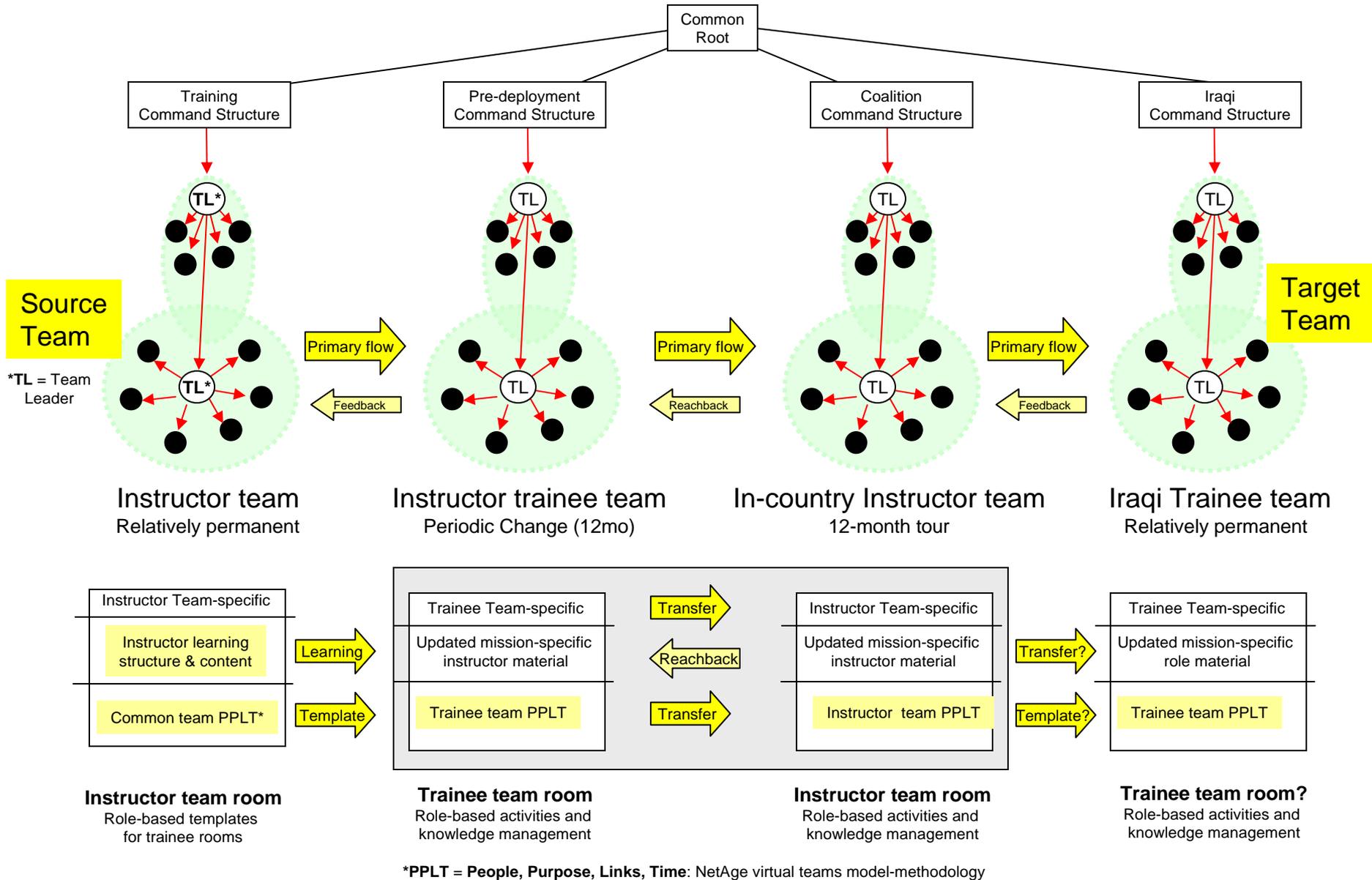
## External inter-team critical-path workflow



## Tactical leadership workflow

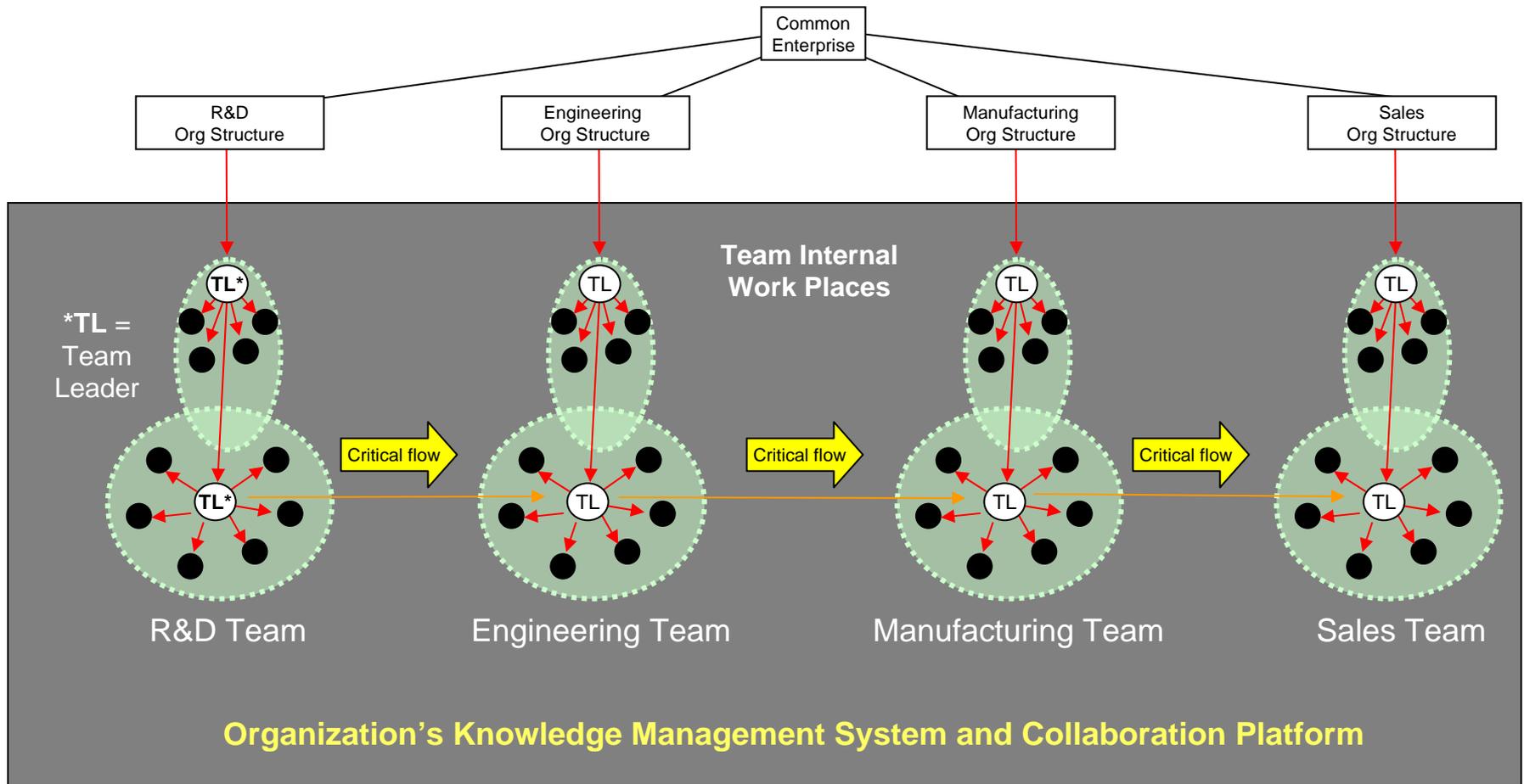


# Real-world Example: Training Iraqi Teams



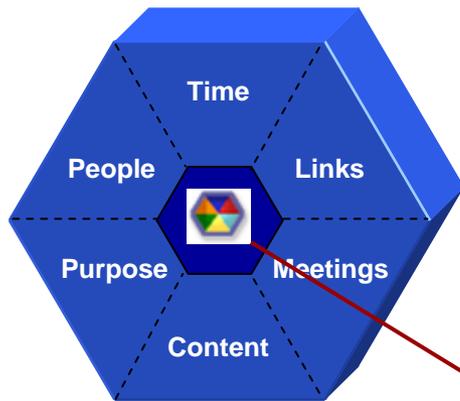


# Embed Virtual Team 2.0 Rooms in KM and Collaboration Platforms



# NetAge Example: Livelink virtualteams – Links Wall

Think 3D Rooms !



Team workplaces

Personal workplace

Organization workplace

The screenshot shows a web browser window titled "eTransformation Team:Links:Relationship Matrix - Mozilla Firefox". The interface includes a search bar, navigation tabs for "Team", "Personal", "Enterprise", "Tools", and "Help", and a "Relationship Matrix" section. A red arrow points from the "Links" panel in the 3D diagram to the "Links" tab in the interface. Another red arrow points from the "Meetings" panel to the "Meetings" tab. A third red arrow points from the "Content" panel to the "Content" tab. A fourth red arrow points from the "Purpose" panel to the "Purpose" tab. A fifth red arrow points from the "People" panel to the "People" tab. A sixth red arrow points from the "Time" panel to the "Time" tab. A seventh red arrow points from the "Meetings" panel to the "Meetings" tab. A eighth red arrow points from the "Content" panel to the "Content" tab. A ninth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A tenth red arrow points from the "Configure Tabs" button to the "Configure Tabs" button. A eleventh red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A twelfth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A thirteenth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A fourteenth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A fifteenth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A sixteenth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A seventeenth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. An eighteenth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A nineteenth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab. A twentieth red arrow points from the "Relationship Matrix" section to the "Relationship Matrix" tab.

Relationship Matrix:  From Here

Virtual Team Room Links: eTransformation Team

Search Livelink for: (Advanced)  From Here

Relationship Matrix:

Relationship Matrix | Operating Agreements | URLs

Displaying: All Team goals with any Due Date whose Status is <Pending, In Progress, Issue, On Hold, Completed, Cancelled>

Goals	Core Team								Other Assignees	
	tsmith	sdubois	ochokriwala	mrichards	jsteale	mwalters	liohanson	lkobayashi	trobinson	
Create effective virtual project team										ckuempel
Create integrated infrastructure										
Design and develop v1.0 platform										lrhodes (Delete) 9092
Develop and deliver marketing plan										
Develop pilot feedback process										
Integrate development with Product Roadmap										
Support pilots and product roll out										
Test beta functionality with two charter customers										bkrutzen, jipnack, cwest

Livelink © Version 9.2.0, Copyright © 1995-2003 Open Text Inc. All rights reserved.

http://69.20.42.1/livelink92sp1/livelink.exe?func=ll&objId=252368&objAction=editconfig&nexturl=/livelink92sp1/livelink.exe?func=ll&objId=252438&objAction=browse&sort=name

< All Wall Tabs visible at once "look around the room"

Panel Tabs > visible, with tools marked

Activate and close panels, create new panels, choose default when Wall selected



# BCKS Virtual Teams Net Room (in Development)

The screenshot shows the TeamsNet web application interface for 'ToL Development'. The page features a navigation sidebar on the left, a main content area with an announcements section, a central dashboard with icons for People, Purpose, Links, Time, Communication, Content, and References, a mission statement, a team photo, and a team tasks table.

**Navigation Sidebar:**

- View All Site Content
- People**
  - Team Members
  - Team Pictures
  - People Docs
  - Network Map
- Purpose**
  - Mission / Values
  - Objectives
  - Tasks
- Links**
  - Relationship Matrix
  - Operating Agreements
  - URLs
- Time**
  - Calendar
  - Project Timeline
  - Phases
- Communication**
  - Meetings
  - Team Discussion
  - Web Conferencing
  - IM / Chat
- Content**
  - Reports
  - Briefings
  - White Papers
- References**
  - Operating Definitions
  - Source Docs
  - Templates
- Recycle Bin

**Main Content Area:**

**ToL Development**

Welcome System Account | My Site | My Links

This Site: ToL Development

**Announcements**

Thanks to Bob Dalton's fun initiative, we will soon be adding animation to the ToL Development capabilities! Yeah!!!

**Dashboard Icons:**

- People:** Team Members, Team Pictures, People Docs, Network Map
- Purpose:** Mission / Values, Objectives, Tasks
- Links:** Relationship Matrix, Op Agreements, URLs
- Time:** Calendar, Project Timeline, Phases
- Communication:** Meetings, Discussions, Web Conf, IM / Chat
- Content:** Reports, Briefings, White Papers
- References:** Op Definitions, Source Docs, Templates

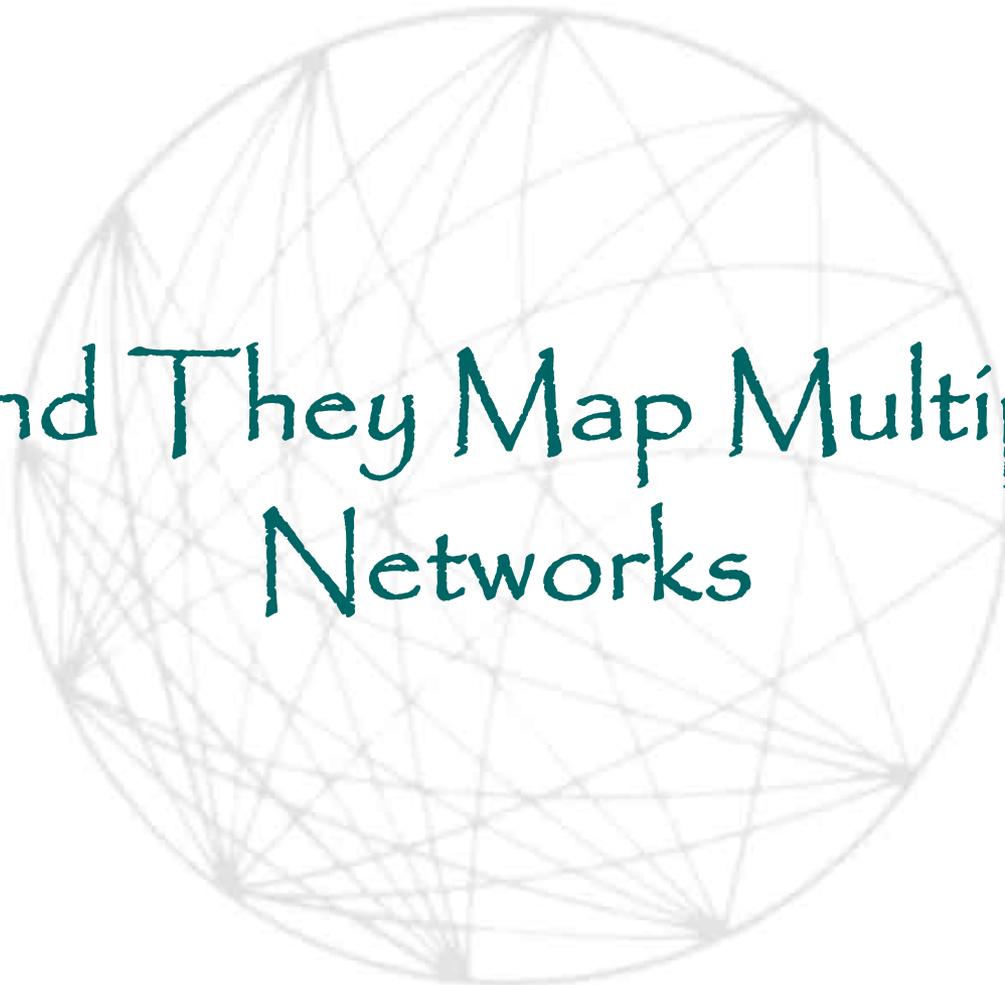
**Mission:** Develop, integrate, and field a dynamic knowledge enabling capability IOT support high-performing teams.

**Team Photo:** A group photo of team members including John Kessler, Michelle Hannah, and others.

**Team Tasks Table:**

Task ID	Task	Due Date	Status	Assigned To	Start Date
1.1	Create an online TeamsNet environment		In Process	John W. Kessler	
1.2	Develop a TeamsNet SOP		Pending	Michelle Hannah	
1.3	Develop a TeamsNet Training Program		Pending	Michelle Hannah	
1.4	Develop a TeamsNet Marketing and Communications program		Pending	Michelle Hannah	
2.1	Write the Leader's Guide to High Performing Teams		Pending	Michelle Hannah	
2.2	Create Leader training exercises and Vignetts		Pending	Michelle Hannah	

The screen "fold"

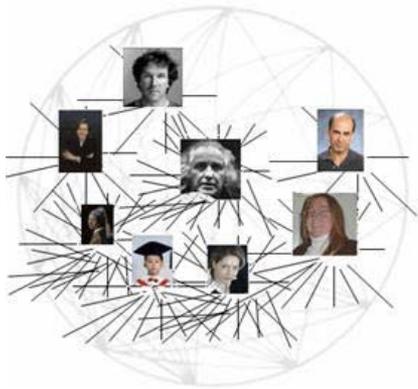
A large, stylized globe icon in the background, rendered in a light gray color. It features a grid of latitude and longitude lines, and is overlaid with a complex network of thin, gray lines connecting various points across the globe's surface, symbolizing a global network or data flow.

# And They Map Multiple Networks



# People in Organizations Work in Two Basic Networks

## Social network



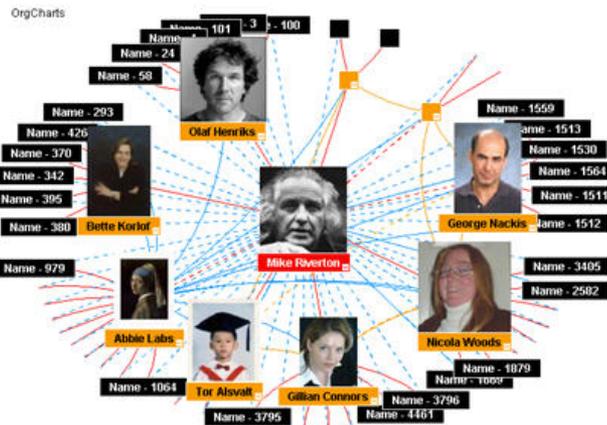
“Subjective” organization

Person as Node

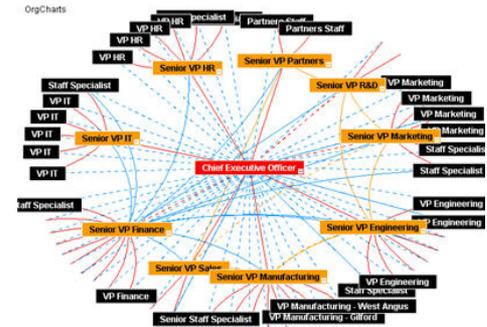
Organization Node



Organizational networks at intersection of people and positions



## Position network



“Objective” organization

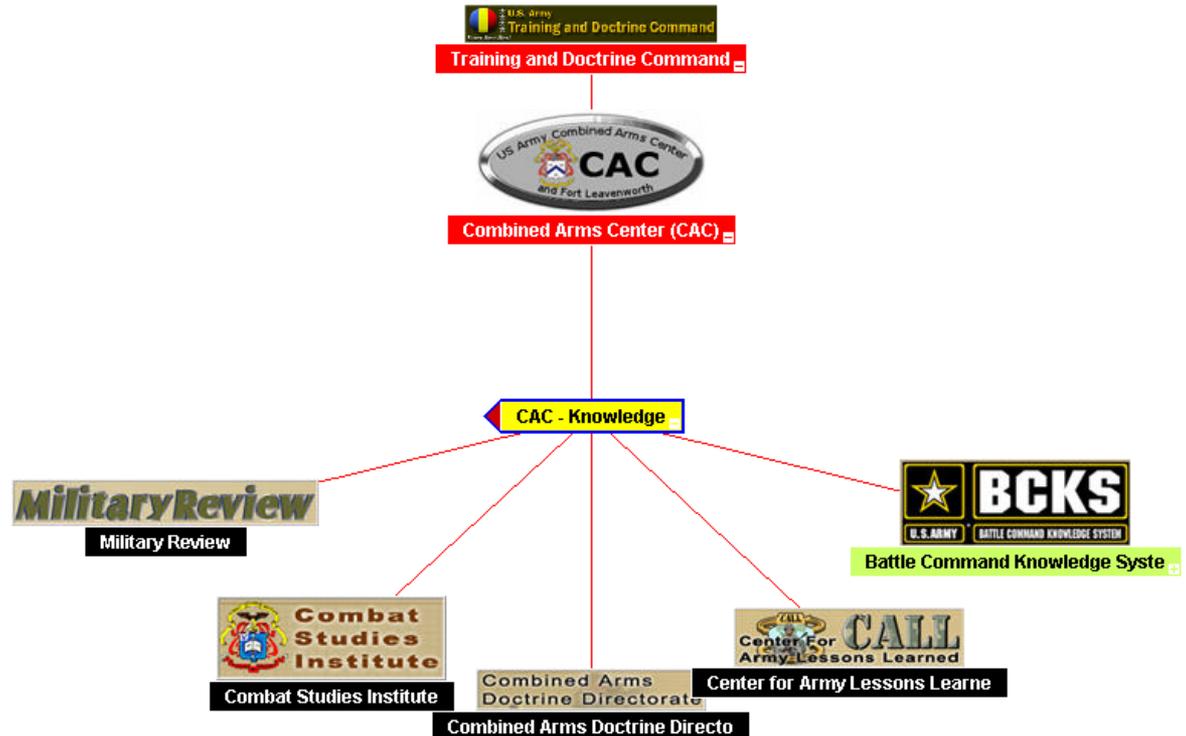
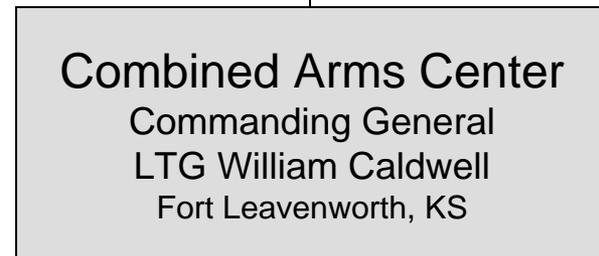
Position as Node

# One Organization Node Represents Multiple Elements

An org chart "box" as node



- **Organization:** Combined Arms Center
- **Group:** CAC Headquarters
- **Position:** Commanding General
- **Person:** LTG William Caldwell
- **Place:** Fort Leavenworth, KS

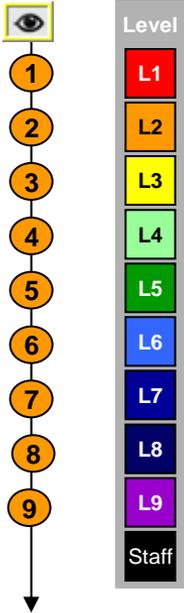




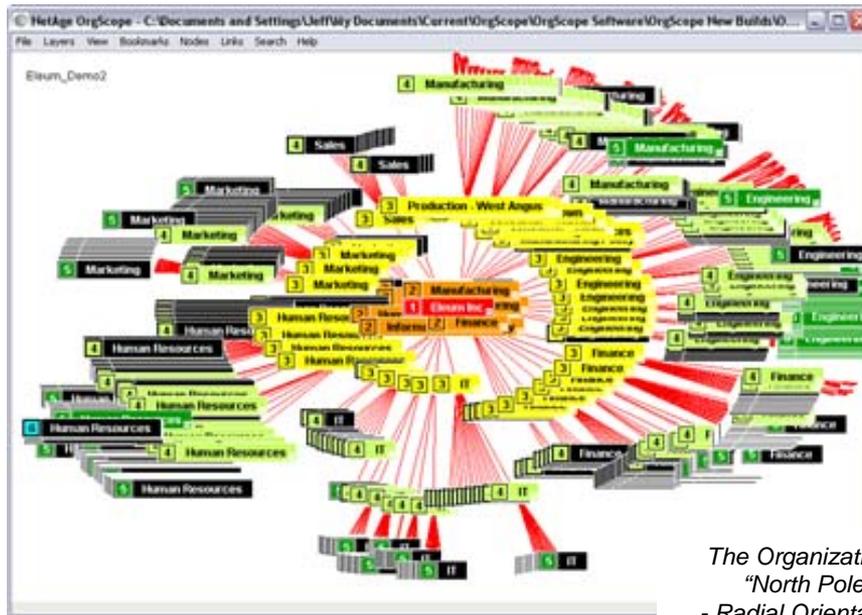
# OrgScope: Map Organizational Networks and Add Layers

A classification hierarchy – e.g., a formal organization chart – provides network infrastructure for adding layers of nodes and links (i.e., other networks)

Levels of organization



Internal org chart as a network

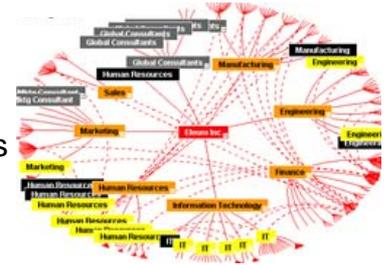


The Organization's "North Pole" - Radial Orientation -

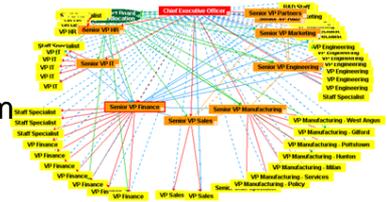
We map positions and organizations and color code them by level (in a nested hierarchy of whole-part relationships)

Add layers of nodes, i.e. contractors, consultants

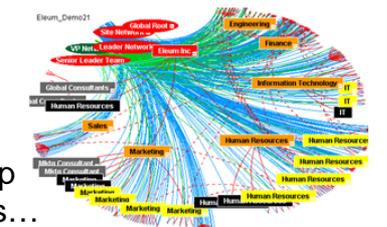
And more links, i.e. matrix reports



Add multiple links, i.e. team memberships



And cross-membership links in multiple layers...

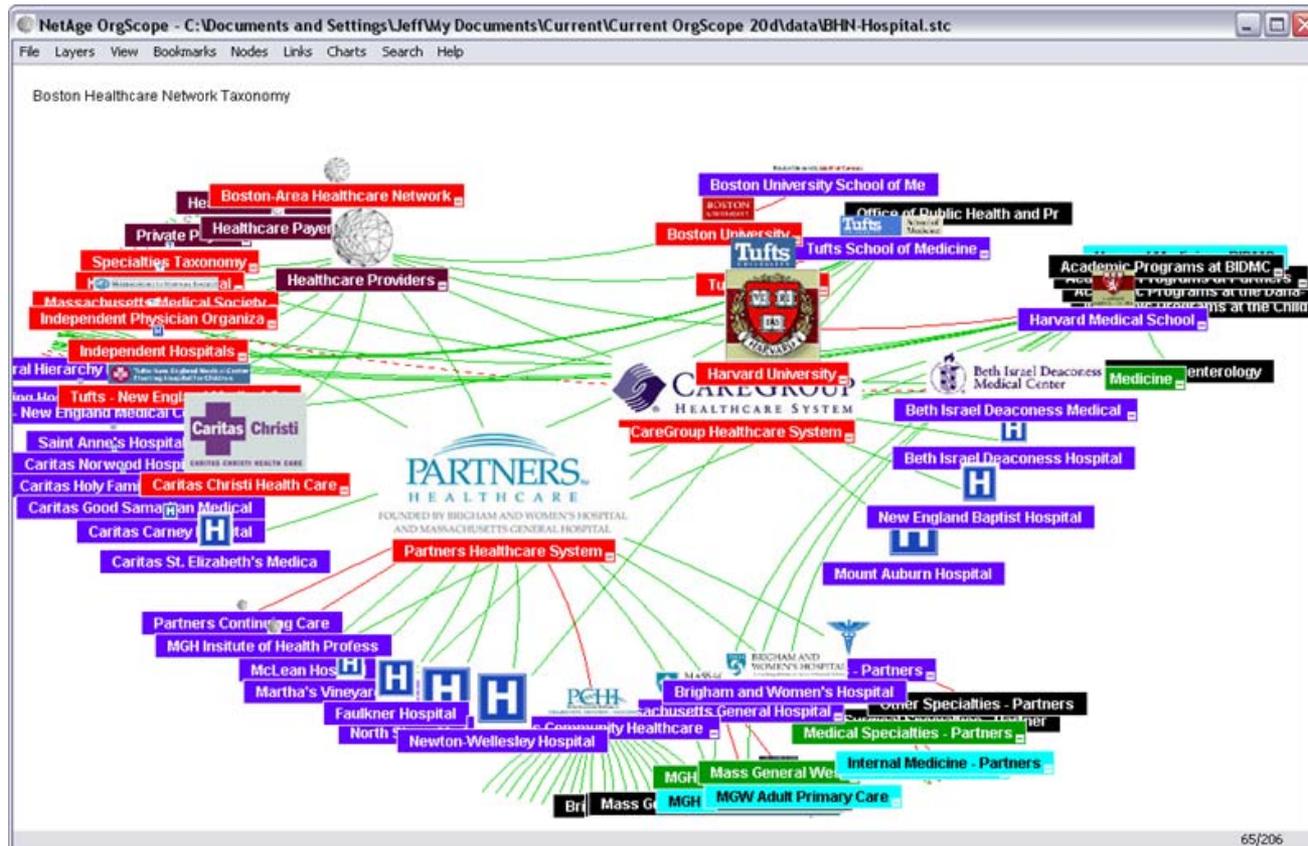






# Boston Medical Network Showing Some Interrelationships

Skeleton framework of regional providers-network with institutional affiliations

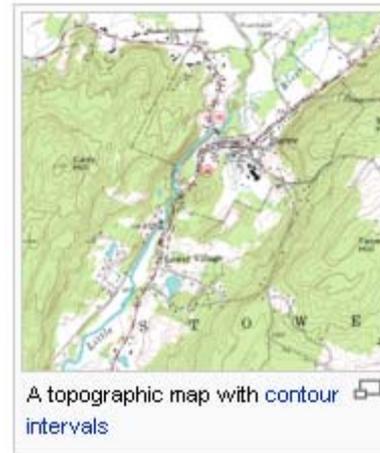
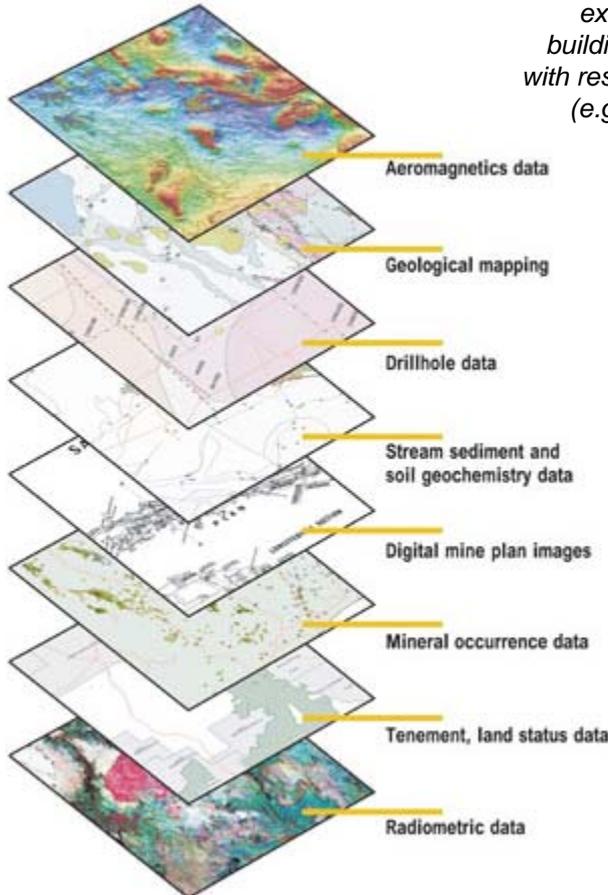




# Organizational Structure Like Physical Terrain - Just Add Layers

Topography begins with “ground truth,” basic relief map. To one well-articulated terrain map, essentially unlimited number of layers may be added singularly or in combination

*Terrain maps typically include existing structures, like buildings and roads along with rest of physical surface (e.g., vegetation, water)*



Google Earth presents stitched-together photograph of surface terrain of earth, complete with human structures that overlay the planet



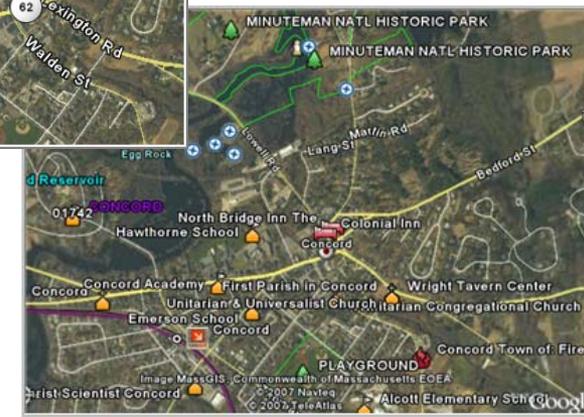
On top of basic terrain, can add one or more layers of information

roads

*To photo of roads, can add a road layer with additional info*



*Same terrain with lots of layers selected*





## How One Organization Used OrgScope

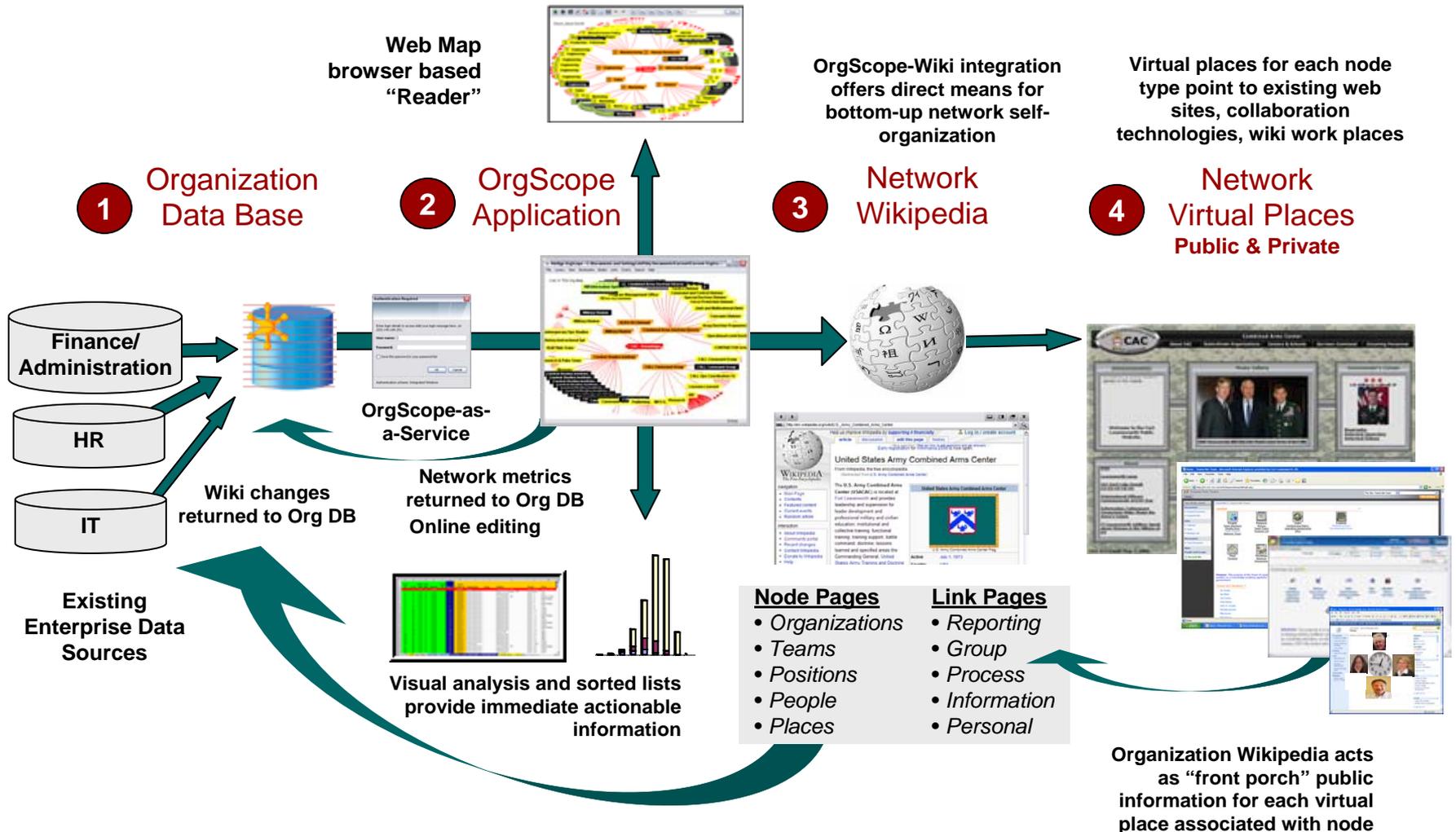
- Company of 5000 people, working across eight countries, mapped its formal hierarchy and found:
  - **Shorter communication paths:** direct to managers
  - **Highly-connected managers:** A few “span hubs” spoke to much of organization on a regular basis
  - **Managers with largest organizations:** Buried deep in hierarchy, these people were not part of existing leadership development programs
  - **Managers missing from leadership forums:** Again, because of their placement deep in organization, people with unusually large or complex leadership responsibilities were not visible
  - **The truly virtual teams:** By comparing locations of members, distributed management teams could be identified
  - **The people at risk:** By comparing measures of organization size, span, and physical distribution, they were able to spotlight positions where people’s loads were unusually complex, dubbed “hotspots”



# Global Collaboration 2.0: When OrgScope and Wikis Combine



# The Elements of Integrated OrgScope-Wiki System





# “Netpedia” – Wiki Page for Each Node & Link

Page data contains all OrgScope related categories for page type

The screenshot shows the Wikipedia page for the United States Army Combined Arms Center. Annotations include:

- A yellow box at the top highlights the 'data' tab in the navigation menu.
- An arrow points from the 'data' tab to the text: "Page data contains all OrgScope related categories for page type".
- An arrow points from the title "United States Army Combined Arms Center" to the text: "Node Page Types:\*".
- An arrow points from the sub-header "Organization Node Page" to the text: "Standard organization info profile".
- An arrow points from the main text "The U.S. Army Combined Arms Center (USACAC) is located at" to the text: "Article format provides both structure and flexibility for living document".
- An arrow points from the text "Every page has owner, by default current position-holder. Leader positions hold team and organization pages" to the text: "Links to and from this node".
- An arrow points from the text "Network node metrics" to the text: "Links to and from this node".
- A yellow box at the bottom lists:
  - **Combined Arms Center**
  - CAC Headquarters
  - Commanding General
  - LTG William Caldwell
  - Fort Leavenworth, KS
 An arrow labeled "Owner" points to the "Commanding General" entry.

## Node Page Types:\*

- Organization
- Group/Team
- Position
- Person
- Place

\* 1 page per node with main parent link

## Link Page Types:\*\*

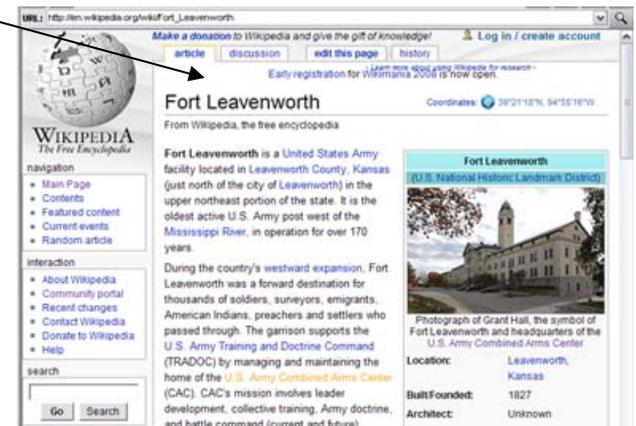
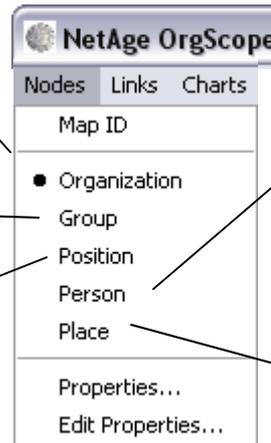
- Reporting
- Process
- Group
- Information
- Personal

\*\* 1 page per link

1 page per parent link list



# One Node May Reference Multiple Wiki Pages



# Combine Organizational and Situational Awareness

Place Layers  
Place Search

The image is a composite of three main windows. On the left is Google Earth Plus, showing a satellite view of Fort Leavenworth, Kansas, with a yellow circle highlighting a specific building. In the center is the NetAge OrgScope application, displaying a complex organizational chart with various nodes and connections. A yellow circle highlights a node labeled 'CAC - Knowledge'. On the right are two Wikipedia browser windows. The top window is for 'Fort Leavenworth' and the bottom window is for 'United States Army Combined Arms Center'. A yellow arrow points from the yellow circle in Google Earth to the 'Fort Leavenworth' Wikipedia page. Another yellow arrow points from the yellow circle in the OrgScope diagram to the 'United States Army Combined Arms Center' Wikipedia page.

Hot button to Wikipedia entry on place

Org Layers

Organization Search

Hot button to Wikipedia entry on organization



## “Only Connect”--E.M. Forster

*“We are born  
to work and play together in teams,  
but we have to give enough  
of ourselves  
to let the filaments connect”*

Paul F. Levy, soccer coach;  
CEO, Beth Israel Deaconess Medical Center;  
and blogger: [Running a Hospital](#)

### **NetAge, Inc.**

505 Waltham Street  
West Newton, MA 02465 USA  
+1.617.965.3340

[www.netage.com](http://www.netage.com)

[jessica.lipnack@netage.com](mailto:jessica.lipnack@netage.com)

[jeff.stamps@netage.com](mailto:jeff.stamps@netage.com)

