

Perspectives—Point/Counterpoint

Anna Tavis, Perspectives Editor

Note: It has been a little more than a year now since we first published the Point/Counterpoint format in our Perspectives section. We were excited then about beginning each journal with a conversation on leading-edge ideas by thought leaders, practitioners, consultants and authors. The idea of having a diverse group of people discuss a topic of interest to our readers seems even more relevant to us this year, when our challenging economy forces us to rethink everything about the ways we do business.

So, in 2009, our Point/Counterpoints will revisit many of our fundamental HR and business assumptions and models.

- In this issue, together with Karen Stephenson, we question traditional organizational structures.
- In our second issue, we will review David Ulrich and Wayne Brockbank's Model of HR as a business partner.

- In issue three, our point article will be Peter Cappelli's revision of talent management.
- We will conclude the year with our last issue dedicated to Peter Drucker's global legacy about management and leadership.

We invite all of you who would like to participate in these conversations to contact us and suggest the topics about which you might like to comment. Counterpoint contributions usually run from 500 to 750 words. You will receive the Point article and have a few months to create your response.

Contact us at jstrother@hrps.org if you'd like to join the conversation and be part of *People & Strategy*. We look forward to your involvement.

Neither Hierarchy nor Network: An Argument for Heterarchy

Karen Stephenson, NetForm, Inc.

Long ago, when the world was local, trust enabled our primordial ancestors to cooperate and overcome overwhelming odds. As our world became more globally interconnected, technology trumped trust. But as the world continued to shrink, a strange thing happened: Interdependencies began to grow and trust was again recognized as the missing link in free-trade agreements, civic-engagement initiatives and financial markets. Trust has been missing in action because we haven't been able to build meaningful, collaborative structures and performance metrics to ensure its sustainability. That's our job today.

No one disputes that the world is shrinking, as more and more people connect with each other through technology. As every connection is made, interdependencies extend from local to global, and so the social fabric or "network" is rewoven. A network is the

nonrandom aggregation of these human connections and is both nuanced and nuclear in its collective power. Until September 11, 2001, organizational theorists largely ignored networks.¹ But networks are ancient tribal structures and permeate even the most familiar organizational forms we embrace as markets and hierarchies.

Networks do more than just connect us as individuals to each other. They connect our different institutions together in organic organizational sprawl. This mega-state of networked or connected hierarchies is known as heterarchy. There is no archeological precedent for heterarchy that we know of, largely because the world and our institutions have never been this interconnected.

"I'm a Prisoner of War in My Own Organization."

A three-star admiral told me, "I can lead men and women into battle, but I am a prisoner of war in my own organization." How does this happen? Governance is a morphing process that incrementally builds on the skeletal remains of past mistakes and policies such that the organizational structure becomes a great barrier reef.

The resulting labyrinths of processes can be difficult to thoroughly chart and, if not monitored, will alter the ecosystem in which the organization thrives. These "bureaucracies," as we have come to know them, inspire both anxiety and awe. Anxiety comes because they

1. With the exception of the seminal article by Powell, W. (1990) "Neither Market nor Hierarchy: Network Forms of Organization," *Organizational Behavior*, 12:295-336.

demand constant tending and feeding to be sustained; awe arises because they are mercurial, magically summoning power from unknowable depths to kill an innovation or destroy a career with aplomb.

The long list of quiet failures that beset would-be leaders as they attempt to win support for new initiatives is due to these bureaucracies and to the prevailing presumption that the key positional “power” people—and the status quo—eventually win out. But what is really going on is that bureaucratic status quo is just a map of favors carried by generations of people and cured over time into resistance to change. Has the reader ever tried to change a bureaucracy? I rest my case!

With the exception of lobbyists, most of us bemoan the existence of sprawling bureaucracies and resign ourselves to co-existing with bureaucratic compromise. But in 1955, the French anthropologist Levi-Strauss² made a bold assertion, largely ignored, that structure trumps scale. His insight has implications for bureaucracies. He goes on to explain that politics has more to do with a two-person household becoming a three-person household than the implications resulting from a 10 percent increase in a 300 million population. What he meant is that a network consisting of three or more people, and similarly a heterarchy consisting of three or more institutions, is essentially an “atom of organization.” If you think this sounds simplistic, wait a minute and think it through with me.

- Take the example of a three-person network: you, your spouse and your spouse’s mother. When you have had an argument with your spouse and your spouse tells his/her mother and the mother-in-law becomes angry with you, well then, that’s a power squeeze most of us can identify with. In graph theoretical terminology, this is called a “signed graph.” The tightening grip of a nuclear family on *your* degrees of freedom can have far-reaching implications. See Figure 1b.

The good news is that these triads of connections within our circle of families and friends

may be part of the solution for solving mega-organizational structures in the 21st century. Let me explain with a provocative example using Figure 2 as illustration.

- My elderly father had both Type II diabetes and Alzheimer’s and was moved from his home to an assisted-living apartment (Organization A). On his arrival, an open sore was discovered on the heel of his foot and he was rushed to the hospital for immediate treatment (Organization B). After a close call with a diabetic coma, the antibodies cleared the infection on this foot. However, he had forgotten how to walk in the interim. So he was summarily shipped off to a physical therapy institute (Organization C) for treatment. The resulting increased activity awakened his curiosity and he was discovered wandering the streets outside the institute at night. He was then transferred to an Alzheimer’s physical therapy unit (Organization D) where he was more confined but by this time completely demoralized. Having lost the will to walk, he remained confined in a wheel chair and was transferred to a fully operational Alzheimer’s institute (Organization E) where he remained until he died shortly thereafter.

Figure 1a: Simple partnership or marriage held in place with simple contracts.

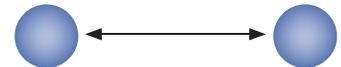


Figure 1b: A triad or signed graph of a nuclear family: You are at the top; your spouse is to the left; and your mother-in-law to the right. This structure can create interesting politics and not consistently positive relations.

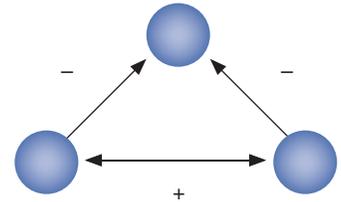


Figure 1c: A triad or signed graph of public private partnerships in the United Kingdom consisting of the victim, the police and the health agency.

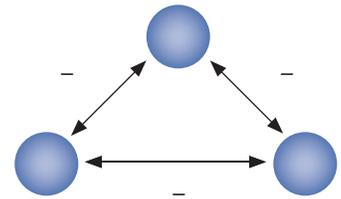
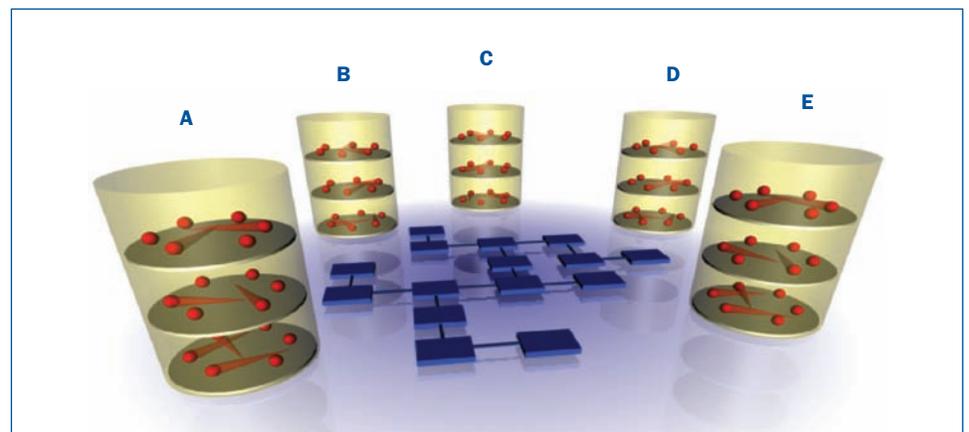


Figure 2: Heterarchies are collaborative endeavors whereby organizations are networked together. Organizations are depicted as yellow, layered silos and the collective and the combined activity is the blue network shown in the middle.



2. Levi-Strauss, “The Mathematics of Man,” *International Social Science Bulletin*: Vol. 6, pp. 581-90.

TABLE 1: HETERARCHY IS GREATER THAN THE SUM OF ITS PARTS

Features	Market	Hierarchy	Network	Heterarchy
Relationship	Transaction	Authority	Trust	Collaborative
Exchange	Non-repetitive	Routine	Repetitive	Intermittent
Focus	Disinterested	Vested Interest	Personal Interest	Collective Good
Rate of Change	Dramatic but not Radical	Slow and Incremental	Rapid and Radical	Sense and Respond
Knowledge Management	Contracts	Policies	Conventions	Agreements

Anyone who has had an elderly parent, grandparent or a family friend may read in this story common threads of despair. When I interviewed the doctors, nurses and physical therapists about what had happened, everyone concurred that they had individually done their jobs within the local confines of their own organizational policies and protocols. Because no one was thinking globally or more collaboratively, the resulting multiple transfers of this elderly man were traumatic: They impacted his quality of life. This outcome is, of course, the exact opposite of stated healthcare goals and is referred to as a perverse outcome to policy.

Heterarchy is Not for the Faint of Heart

The concept of heterarchy is essential in understanding bureaucracies, so that they can be aligned and fit for purpose. Heterarchy (Figure 2 and Table 1) consists of at least three (or more) separate hierarchies, each with its own *raison d'être*, but which, in turn, must collaborate with each other to accomplish a collective good more complex than any one hierarchy can manage on its own. It is an organizational form somewhere between hierarchy and network that provides horizontal links permitting different elements of an organization to cooperate, while they individually optimize different success criteria. Its beauty is the way in which it permits the legitimate valuation of multiple skills, types

of knowledge or working styles without privileging one over the other.

Heterarchy is a good idea, but very difficult to implement compared to more familiar forms of hierarchies and networks. It requires a well-designed and coordinated network, ensuring alignment and common connections, largely through performance measures. Heterarchies can be seedbeds of contagion—of ineptness, of disease and of fraud as we have witnessed in the unintended consequences of ENRON, AIDS and the radioactive diffusion of distrust in the 2008 global financial meltdown. Or, heterarchies can link

Heterarchies are magnificently complex, linking together people and institutions to solve a complex task and or achieve a grand design.

together people and institutions to solve a complex task and/or achieve a grand design. Heterarchy could portend a premier form of 21st-century governance. Or it could be a harbinger of unimaginable perversity.

When We Don't Go Far Enough

In October 1998, Great Britain's Blair administration authorized agglomeration of several

smaller departments into the giant Department for the Environment, Transport and the Regions, or DETR. This directive failed because simply putting people in the same building, in the same hierarchy and changing the name of the organization is only a first step in a hierarchical process and does not automatically lead to or guarantee integrated working in a heterarchy.

Similarly in 2003, the U.S. Bush Administration created the Department of Homeland Security (DHS) by combining three separate government functions: intelligence (e.g., NSA, NRO and CIA); policing (e.g., Customs, FBI); and emergency and disaster response (e.g., FEMA, Coast Guard). Built up from approximately 60-plus pre-existing departments, DHS consolidated these departments and agencies in an effort to engage the agencies in meaningful collaboration. Unfortunately, because there were no shared processes, the move only deepened the competition among the constituencies.

Remember: In bureaucratic sprawl, one team jockeys for position with another; one directorate attacks another to protect its budget; and departments as a whole fight one

another to defend their turf. There is no infrastructure to join these systems into one integrated whole. As such, they are never more than (and often much less than) the sum of their parts. These competing segments calculate power by comparing and contrasting their stock or status with that of their peers. Competition, not collaboration, is the watchword. What is needed is a multi-organizational network to support the seamless exchange of information laterally in a heterarchy among hierarchies.

Collaboration, Not Competition

Philadelphia took a fresh approach to urban renewal in 2005. The city highlighted hidden connectors: It uncovered and heralded people doing good deeds. The resulting public revelation inspired a renewed fervor in civic

and they are being copied in many major metropolitan cities in the United States.³

Also in 2005, a U.K. initiative sponsored by the Home Office, The Government Office of East Midlands, and the Office of the Deputy Prime Minister began to develop new performance measures using a modified form of social network analysis for local strategic part-

In both cases, “hidden” strategic connections revealed a “*virtual organization*” or heterarchy such as the one shown below. Connectors are hidden because they are not visible to a hierarchy that looks out, but not down. These connectors are critical for sustainability and they are essential collaborators in governing.

Connection by technology without trust is merely traffic. Trusted connection without technology is an opportunity lost. To survive as a species we need both, but not at the expense of the other.

engagement. Leaders revealed these unsung heroes by modifying a form of social network analysis. They mapped networks and identified the pivotal combinatorial points. The efforts led to a renaissance in civic engagement

nerships. Although partnerships between two organizations may begin by “shaking hands” at the executive level, smarter measures are needed to sustain multi-agency collaboration throughout and not just at the top.

Trust and Technology

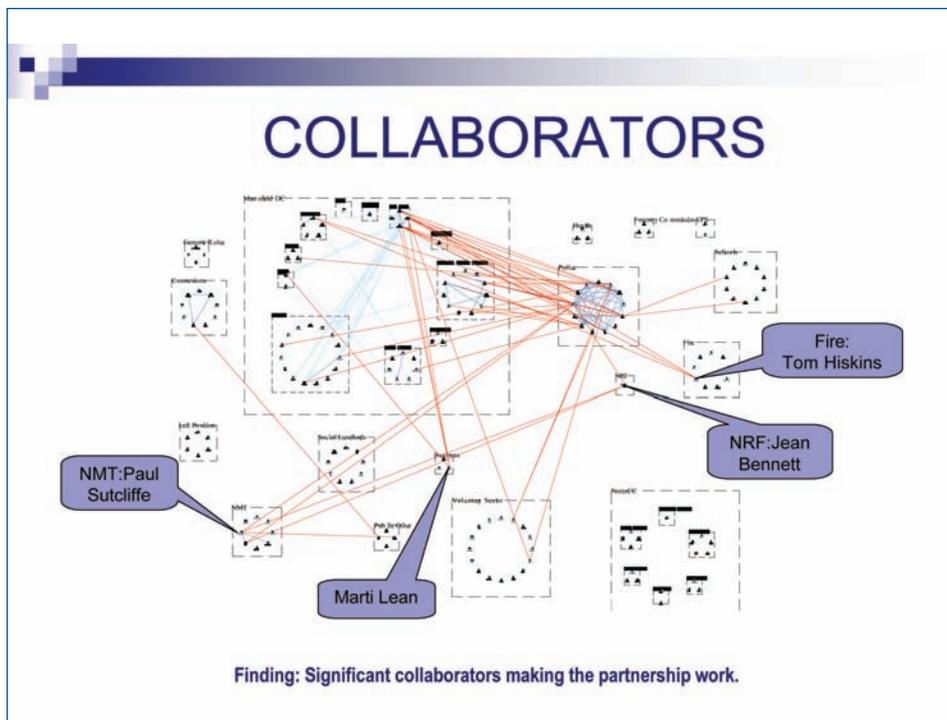
We are increasingly interconnected due to technology but that doesn’t make us any wiser or closer to each other. Instead, the deep connection I am alluding to arises from sustaining trust across multiple agencies, hierarchies and countries. This is the 21st-century challenge for leaders and managers of heterarchy—the DETRs, the DHSs, the EUs and the United Nations of the world.

Connection by technology without trust is merely traffic. Trusted connection without technology is an opportunity lost. To survive as a species we need both, but not at the expense of the other. Trust and technology help humans connect across geographical distances or reach across a continental divide of cultural differences. It is self-evident and it is a social imperative: We must connect, but we must connect in ways that are meaningful and sustainable. That is why understanding, measuring and implementing heterarchical interconnection should be a top priority for policymakers everywhere.

Editor’s Note: Stephenson’s work was the subject of a feature article in The New Yorker by Malcolm Gladwell (2000), and Strategy + Business by Art Kleiner (2003).

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Figure 2: Hidden collaborators in the heterarchy.



3. Stephenson, K. (2007). “The Community Network Solution,” *Strategy and Business*, Issue 49, Winter, 2007.

Concrete Examples Needed

Edgar Schein, MIT Sloan School of Management

Karen Stephenson's argument for heterarchy is valid in principle, but it is lacking in the details of how one would create effective heterarchies. As she correctly points out, trust between members of a network, whether those are individuals, groups or entire organizations, is the key to whether or not they can collaborate. We now have the technology that would enable large organizations to share information and coordinate their activities—and we may even have the will to collaborate—but do we know how to build the level of trust that may be necessary for valid information exchange.

The biggest barrier I see is that with globalism has come occupational multi-culturalism. Organizations reflect their national origins and build their own corporate cultures out of their own experiences.

I believe that networking leading to functioning heterarchies is probably inevitable in today's world, but which organizations and institutions will effectively coordinate and/or collaborate is very much a mystery.

Furthermore, as technologies become more complex, the members of task forces and teams also come from different occupational cultures (Schein, 2009). In fact, coordination and cooperation between different occupational groups may be a more difficult problem than even between national groups, as exemplified in the difficulty that surgical teams have in implementing technologies that require real teamwork between the surgeon, the anesthetist, and the nurses (Edmondson).

For a heterarchy to function, therefore, requires that in each link there is a common language and common cultural understanding. Once

that common understanding has been achieved, building trust becomes possible: But it must be built, it cannot be assumed.

In my recent book, *Helping* (2009), I have argued that the building of trust is itself a very complex communication process in which we gradually test how much the “other” is willing to accept us for what we are and not take advantage of us for personal gain. The motive to want to collaborate has to be there for this process to work. And from this point of view, collaboration can be viewed as a mutual helping process. For the members of a heterarchy to function effectively requires a motivation to be mutually helpful. That is precisely what I find missing in so many organizational situations, in part because our larger capitalist frame of reference reifies competition as the basic motivator.

I believe that networking leading to functioning heterarchies is probably inevitable in today's world, but which organizations and institutions will effectively coordinate and/or collaborate is very much a mystery, given all of the structural

and cultural barriers in the way of effective inter-organizational communication. What would be enormously helpful would be some concrete examples of how such heterarchies were created and what enabled them to function.

Edgar Schein is professor emeritus at the MIT Sloan School of Management.

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Early Stages of a Journey

Robert G. Eccles, Harvard Business School

Karen Stephenson's “argument for heterarchy” is a provocative idea, yet an incomplete one. Before elaborating on why I think it is incomplete, let me elaborate a bit on three reasons why I like it.

- First, the implied anthropological approach is a refreshing one. The fact that institutions and the ways people work together are deeply embedded in past structures that have been adapted to present circumstances is largely ignored.
- Second, Stephenson is pointing out an important issue in today's globally interconnected world, which is the need for greater collaboration to ensure the required collective action for solving some of the pressing problems facing our country and the world today.
- Finally, the examples she uses to illustrate her argument are compelling ones. I also like the fact that they range from the small and the personal to the large and the institutional.

Let me now suggest some areas where I think her argument needs further elaboration. These should be considered as constructive suggestions for her future work and longer articles or even a book she might write on this topic—and I would be pleased if she did.

- **The implied duality needs to be made explicit.** Stephenson appears to be arguing that heterarchies are bad (“heterarchies are seedbeds of contagion—of ineptness, of disease and of fraud”) and that “heterarchy is a good idea.” Of course, any organizational form could be effective or ineffective, but Stephenson needs to more clearly articulate what makes for good and bad heterarchies.
- **The relationships between organizational forms need to be clarified.** Stephenson defines heterarchies as a “mega-state of networked or connected hierarchies,” which begs such questions as:

(1) What is a network of networks? (2) What is the role of markets in heterarchies? and (3) Can there be a heterarchy of heterarchies? And, if not, what defines the boundaries of a given heterarchy? What is needed here is a kind of meta-table on Table 2 in her piece.

• **The role of information technology needs to be explained.**

Technology appears in the very first sentence of her piece and it is in the first sentence of the last paragraph. Yet the reader, at least this one, is never clear on just what the role of technology (or what is exactly meant by this—IT?) is here. Nor is it clear whether technology is a prime reason for the emergence of heterarchies; a way to enable them to work better; or a negative factor if it is not combined with trust.

• **The importance of heterarchy to understanding the collapse of the financial markets needs to be demonstrated.**

Stephenson briefly mentions this example, in an almost teasing way. Understanding why this happened is enormously important and I think her concept of heterarchy could provide some powerful insights.

• **The ways in which heterarchies can be made forces for good need to be identified.**

While examples of effective heterarchies are given, there is no framework that explicates how to make heterarchies forces for good. This is particularly important given the implied duality I have already mentioned.

While I think Stephenson is in the early stages of her journey on arguing for the existence of and the need for heterarchies, I like the direction in which she is going and wish her the best of luck. Her contribution to theory and practice has the potential to be a very important one.

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Of Hidden Connectors and a Violin Quartet

Charles Handy, London Business School and the Royal Society of Arts

Karen Stephenson has highlighted an increasingly important challenge to our organizations. She has focused on the need for institutions of all types to work collaboratively, but through a virtual network of hidden connectors rather than some cumbersome structural arrangement. She is right but, sadly, labelling the problem does not solve it: It may even make it worse.

This, then, is the new leadership challenge: to inspire people to want to reach beyond the bounds of their own organization to create something special, and to find the other connectors who will help them to do this.

Organizations, and even groups of organizations, are very prone to the practice of “boxing the problem.” That is, having identified a continuing issue, they create a box somewhere on the organization chart, give it the name of the problem and put some people in it in the hope that they will deal with it. Unfortunately, this only adds to the bureaucratic tangle that Karen Stephenson wants to avoid. My concern is this: Bringing the hidden connectors into the light by, for instance, labelling them as the heterarchy might result in them being herded into just another box, and told to sort it out – to end up as just another committee.

The answer must be to keep them hidden, but this requires, from those hidden connectors, a willingness to downplay their own significance to create something bigger together. They are only likely to do this if they feel that they can be a part, however unrecognized, of some greater cause. This, then, is the new leadership challenge: to inspire people to want to reach beyond the bounds of their own organization to create something special, and to find the other connectors who will help them

to do this. This means that the leaders themselves need to have horizons beyond their own organizations, rather than concentrating on their purely local priorities – a quality that, I fear, is all too rare. However, Julia Middleton, of Common Purpose, in her recent book *Beyond Authority* has some nice examples of leaders who have done just that.

I am worried, too, by Karen Stephenson’s all-too-accurate comment that technology without trust is merely traffic. My worry, to use a modification of another of her neat observations, is that technology trumps trust: that just because we can communicate we

believe we can collaborate. After watching a violin quartet the other night, I asked one of the performers if they could play the same quartet virtually, if they were connected by some videoconferencing facility that linked them while being physically in different countries. She said that it might be technically possible but only if they had previously worked together and rehearsed in the same space. “The empathy and trust wouldn’t be there otherwise,” she said. Too true, I fear, and the same applies to any working group, be they playing violins or not.

The new heterarchies won’t work unless those hidden connectors can, in a sense, become the equivalent of that violin quartet, where leadership is so subtle as to be almost invisible; where empathy is the favored way of communicating; and where personal rivalry is subsumed in the cause of their joint creation. That won’t happen by e-mailing alone, just one more challenge thrown up by this new organizational form of heterarchy. Karen Stephenson is right to have drawn our attention to it.

Charles Handy is professor emeritus at the London Business School and is chairman of the Royal Society of Arts in London. Among his 18 books are *The Age of Unreason* (Harvard Business School, 1989) and *Myself and Other More Important Matters* (AMA – 2008).

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Neither Hierarchy nor Heterarchy: An Argument for Network?

Tracy Cox, *Raytheon Professional Services LLC*

As I read Karen Stephenson's article, I first appreciated her title selection to include the word "argument." This invites debate—and that is exactly what continues to advance the field and study of informal networks in business. Secondly, she begins the article with the words, "No one would argue that..." Thus, as is often the case, I will now play the role of "No one."

My struggle begins with making applicable business sense out of theory. While heterarchies might exist in social settings, I'm just not sure I've seen one in business practice.

My first inclination, as I continue to study informal network structures across the world in a wide range of markets and cultures, is to challenge the notion of the world becoming smaller as more and more people connect. I am becoming more and more perplexed by the 21st-century definition of a relationship, given that we seem to be using the word "connection" far more in business as opposed to "relationship."

As we discuss a network relationship, it typically comes with two active ingredients: trust and reputation. As Ron Burt (2005) most eloquently discusses, trust is a **relationship** with someone in which contractual terms are incompletely specified. The more unspecified and taken for granted the terms, the more trust is involved. Without trust, I doubt that a relationship exists. This would seem to make it difficult to conduct meaningful business transactions across this "connection." So comes the question, from a business value perspective: Does the fact that we have more "connections" really matter?

As for the argument that heterarchy seems to be trumping hierarchy and network as we become more connected, I must first begin with the definition of heterarchy. From Wikipedia, a **heterarchy** is a system of organization replete with overlap, multiplicity, mixed ascendancy and/or divergent-but-coexistent patterns of relation. In social and information sciences, heterarchies are networks of elements in which each element shares the same "horizontal" position of power and authority, each playing a theoretically equal role.

My struggle begins with making applicable business sense out of theory. While heterarchies might exist in social settings, I'm just

not sure I've seen one in business practice. The problem lies in the "theoretically equal role" of the players or entities in a heterarchy. In practical application, I don't know that this exists. While I have seen many instances of politically or structurally equivalent entities in networks, there always exists this element of informal power and influence inherent in any informal network that prevents "theoretically equal roles." It's quite

possible that this phenomenon is reasonable to expect in a purely social setting, but in the domain of business and markets, I believe it to be just theoretical.

Finally, in Table 2 of Stephenson's article, she does a very nice job of differentiating several structures including Markets, Hierarchy, Network and Heterarchy. My problem here is that the attributes under a heterarchy (Collaborative, Intermittent, Collective Good, Sense & Respond, Agreements) easily describe several networks that I have studied and documented. I don't believe that a network's focus is one of personal interest. In fact, there are many situations where very cohesive networks take on such a strong identity associated with the team that the interests of the individuals take a back seat to the goals and objectives of the collective.

In fact, per Burt (2005), strong cohesion in a network can lead to phenomenal gains in efficiency and productivity by ramping down learning curves. It may also have negative side effects such as groupthink, gossip and character assassination. But these characteristics are a result of the "greater good" being far more important than the individual's personal interests.

I agree wholeheartedly with the Stephenson's concluding remarks. The increased interconnections due to technology do not make us any wiser or closer to each other. Neither do they facilitate trust leading to economic gain, new markets, business partnerships or better performance.

I love the line that "Connection by technology without trust is merely traffic." But, the concluding remarks are such a strong argument for networks and our continued pursuit to understand them and leverage them—not for social studies, but for the purpose of increasing innovation and growth, improving profit margins through efficiency and productivity and creating economic prosperity for future generations. So maybe I am pushing for a changed title to the article. How about, "Neither Hierarchy nor Heterarchy: An Argument for Network"?

Tracy Cox is director of performance consulting with Raytheon Professional Services, LLC.

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What Happens Next?

Patti Anklam, Network Consultant

Karen Stephenson articulates the need for organizations to think across boundaries and suggests a new meta-organizational form, the *heterarchy*. Her article provides a good set of descriptors for what these networks look like. I am personally invested in understanding how to create and sustain networks, and would have liked to see in this article some guidance on working with these new forms.

Networks come about in several ways. There are those that are intentionally designed by (1) clarifying the network's *purpose*; (2) establishing a model for its *structure* and governance; (3) paying attention to the *style* of how the network is operated and led; and (4) ensuring that the network produces *value* to those who are in it as well as to the ecosystem in which it operates. Professional association networks, cooperatives and communities of practice are examples of designed networks.

Other networks are truly emergent in that they self organize around markets and ideas or in response to opportunities, threats or crises. Small groups of volunteers provide whatever they are capable of to assist survivors in the wake of a hurricane, and then connect with other small groups until a larger network is perceived and the ecosystem becomes tangible. Consider also the growth of the Linux open-source community that began with an individual's desire to create a free computer operating system and to tap into any and all available talent to develop and maintain it.

We can think of these two approaches as the top-down and bottom-up, with most failed examples being those imposed from the top down (the U.S. intelligence agencies example that Stephenson cites). The idea of heterarchy suggests that there is a third possibility: An external actor (or agent) provides a framework within which a network or networks find fertile ground for connecting and building relationships. A company may use a so-called "shaping strategy" (Hagel et al., 2008) to influence the composition of an industry and its role in it (think of Microsoft).

In complexity terms, an attractor is at work. The more well designed the attractor (or strategy), the more likely a rich and diverse network will form around it. Stephenson's own example of the renaissance of civic engagement in Philadelphia following the identification of unsung heroes is a useful example. The project itself was an attractor that fed awareness of a common purpose.

One of the big questions for a heterarchy remains: "What happens next?" What sustains a heterarchy once it is defined, however it has come about? How is trust created? What are the characteristics of its leadership? How is it renewed? How can we track the multiple, overlapping networks that emerge inside of the heterarchy (as will surely be the case)? Or do we need to?

If we trust our ability to approach complex systems in ways that do not shoehorn rules and measurements into a structure, but which honor adaptability and stewardship, then we may develop the tools we need to make our way across and within a new kind of sprawl.

Patti Anklam is a Network Consultant and author of *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*.

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Valuing Heterarchy in the Public Sector

Barry Frew, Frew and Associates and the Center for Executive Education

I think Karen Stephenson's observation that the social networks that glue people together have been underestimated and undermanaged is particularly insightful. I agree with her notion that gluing this social organizational network to hierarchies provides leaders and managers a more complete picture of their organizations and their organizational relationships.

My work inside the Defense Department has introduced me to many great leaders who attempt to improve, and in some cases radically change, bureaucratic organizations. The services and the Department of Defense have good stories about changing deep-seated thinking, culture or status quo as the nature of threats shifts rapidly and unpredictably.

In her 2006 book, *Quantum Theory of Trust*, Stephenson talks about the building blocks of the network structure that forms the heterarchy by linking hierarchies. It is the roles of hubs, gatekeepers and pulse-takers, she says, that result in a small but powerful group of people and relationships that drive a culture. This makes sense to me and helps explain why some people are effective at change and some are not. I believe that effective and sustainable change requires different thinking at its core.

There are essentially two parts (poles) to any heterarchy: network relationships and organizational hierarchy structures. These are interdependent pairs. You need informal relationships and formal structures to produce effective work. Focusing on one pole at the exclusion of the other results in producing the negative side of that pole. It may be counter-

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intuitive, but visiting Barry Johnson's work (1992, 1996) on polarity management will support Stephenson's assertion of heterarchy from a different perspective.

The rigor with which she attacks her discipline and in innovating a way to identify the key operatives of hub, gatekeeper and pulse taker within an organization is impressive. But the operatives can be effectively used to create large-scale, sustainable, cultural and transformational change.

By identifying hubs, gatekeepers and pulse-takers, you have essentially identified those who "own" the culture. They are the thought leaders others reference and follow. By focusing learning events on this group, you can create tipping points. Whether learning is intended to improve some skill set or generate a new level of thought, using learning to change the thinking is key. A learning event intended to shape the desired attitudes, beliefs, thinking and the resulting behavioral changes that occur in that group can much more rapidly and efficiently affect needed cultural change within an organization. Trust lies in the relationships, not in the structure.

Private sector competition enables better products at lower cost: It doesn't work that

Trust lies in the relationships, not in the structure.

way in the public sector. When two agencies or organizations are in the same "market" (imagine homeland defense, health services or education, for example) the result often is inefficiency, duplicity and gaps between organizations. Shifting thinking from bureaucratic positioning to valuing heterarchy is powerful. The real seeds of excellence and completeness lie in the heterarchy garden.

One impediment to application in the public sector is that the "blue" network piece of the heterarchy depicted in Stephenson's figure 2 model is no organization's "responsibility." Investments in generating the common infra-

structure, rules, processes and standards for the combined good of that "market" are difficult to justify and even more difficult to implement. Civil servants steeped in the culture don't think that way and they are not rewarded for that behavior. Political appointees may think that way, but they cannot move quickly enough to "unlearn and reset" thinking before they are replaced. Using serious learning initiatives involving mixed-hierarchy participants to alter the thinking and behavior with new values, attitudes, beliefs and thinking about linking the organizations together can be an effective use of the heterarchy concept.

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Heterarchies: Human Nature Transformed?

Art Kleiner, Booz & Company

Karen Stephenson's article provides a great start for understanding the dynamics of an increasingly non-hierarchical world: a world where there are fewer bosses and more colleagues, in which more people have to live as free agents, brokering their work and lives among a variety of organizations. We may or may not be approaching this type of society; and if we do approach it, we may or may not be ready to live there.

Stephenson, who is a uniquely accomplished scholar of network dynamics, does us all a service by identifying a vehicle that may make it easier to live there. The triad, a group of three people, operating across hierarchical boundaries, will become the driver of change in a highly networked world.

But in this article Stephenson doesn't address the most critical question: How explicitly must leaders track and follow what the triads are doing? And how much can we assume, without actually talking about it, that all of us in our triads all aligned and operating together?

Consider three organizations, three hierarchies that might be networked together in the heterarchical fashion that Stephenson posits.

- One might be a regulatory agency of a city government.
- Another might be a local non-profit, operating a group of street-front services, dependent on donations.
- And a third might be a multinational business with both headquarters and factories in that city, recognizing that its future depends on attracting talented employees.

Together, these three organizations might decide to develop a new initiative around (say) school improvement. Before the project is over, hundreds of people from these three organizations will be involved, in probably dozens of triads.

In the end, success or failure will depend on the quality of conversations among people who recognize, know and trust each other: triad upon triad upon triad. Each group will be dealing with a separate part of the problem; each will face the problem of working in concert with others.

How much will they have to understand explicitly? And how much will pass, as if by osmosis, simply through the culture?

Now imagine the same type of problem at the scale of a country, or a region, with thousands of such triads at work on some critical problem.

One aspect of hierarchies that bureaucrats (and lobbyists) appreciate is scale. The only messages that travel up a hierarchy are quantified or quantifiable: estimates, allocations, quotas, budgets and similar types of information. Those can be aggregated and used to compare activity across a large multinational operation. One division of a company may make refrigerators; another may broadcast television programs; and a third may service nuclear power plants, but they can all be judged in context of each other by comparing profitability statistics.

But scale only goes so far. Knowledge, information, gossip, trust and personal connection—the kinds of information needed to start a new venture or communitywide project—do not easily travel en masse. They need time and conscious attention; they spread through one-on-one awareness. And it's not quite clear how much capacity people will have for this, especially when they have many commitments and calls on their time and attention; when they have families, friends, “day jobs,” and the minutiae of daily life to attend to.

Will a networked society make it easier to manage these competing demands on peoples' attention? What kinds of personal disciplines will be required to make a heterarchy work? And what kind of moral or cultural support and guidance will people be given to develop and exercise that discipline?

I think Karen Stephenson, and other leading network researchers, already know the answers to some of these questions. But some of the questions have to do with the nature of the human condition. As Stephenson points out, heterarchies—multi-connected networks of hierarchies—have never existed before. Humans will adapt to them, but at some level, living in this new type of society will have to become second nature. And is there a precedent for that kind of transformation?

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Heterarchy: Technology, Trust and Culture

Ross Dawson, *Advanced Human Technologies*

Karen Stephenson is absolutely right to emphasize the rapid rise in *interconnection* that individuals, organizations and societies are currently experiencing, and the resulting *interdependence* that stems from that. Relatively few have yet grasped that the degree of interdependence generated in a globally connected economy significantly changes the drivers of individual and collective success. Central to these drivers are the organizational structures that coalesce value from disparate participants.

Certainly understanding that heterarchy is a better organizational form than current alternatives is an important first step. But for that, it is important that “heterarchy” is a term that can be used with clarity and common understanding. Unfortunately there appears to be no consistent definition of heterarchy available from standard dictionaries; and the term is in fact used differently in social sciences and biology.

The definition for heterarchy offered by Stephenson in her footnotes is “an organizational form somewhere between hierarchy and network that provides horizontal links that permit different elements of an organization to cooperate whilst individually optimizing different success criteria.” While this is a useful definition, this needs to be understood and accepted by others before the argument for heterarchy can proceed to action. A more commonly used definition is that used by Carole Crumley, who states that heterarchy is “the relation of elements to one another when they are unranked or when they possess the potential for being

ranked in a number of different ways.”¹ This evokes both the reality of multiple levels, and the communication between levels that is critical in transcending the dysfunctions of pure hierarchies.

It is valuable to remember that organizations are intrinsically systemic. Systems theory and its progeny have helped us understand how some characteristics of systems and organizations can be self-sustaining. As such, shifting from hierarchies to heterarchies can only be done effectively by viewing the interrelated entities as elements in a system, which very likely will incorporate mechanisms that make structural change difficult.

In this context, Ashby-Ross's law of requisite variety² suggests that organizations (or sets of organizations) cannot be controlled or managed if they do not have as much flexibility as their environment. In an intensely connected world, this degree of organizational flexibility is very difficult to achieve. However the shift to a heterarchical structure will create many additional dimensions of flexibility, as information flows become less constrained. As such, heterarchical structures are extraordinarily relevant today.

The challenge is both in “understanding, measuring and implementing heterarchy,” as Stephenson describes, and even more pointedly, in understanding the interventions that facilitate the creation of effective heterarchical structures. Organizational network analysis is by far the most relevant tool to uncover these patterns. Yet we have far to travel in effectively working at the intersection of technology, trust and culture that is required to succeed in this transition. **P&S**

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