Dr. Karen Stephenson proves that anthropologists aren’t limited to studying primitive cultures. She is a professor of business at Imperial College at the University of London and CEO/president of NetForm, a New York-based corporate consulting firm. Stephenson works inside complex corporations (including IBM, TRW, Merrill Lynch, and J. P. Morgan), mapping and measuring relationships. By combining her anthropological observations with techniques derived from her work in chemistry and mathematics, she makes startling discoveries about how these organizations really work.

Before anthropology, you were a chemist. How did you end up applying those skills to the workplace?

As a quantum chemist, I was studying robust patterns (repeating and therefore predictable patterns in chemical reactions and atomic degradation) that occurred in nature. At the same time, I was in charge of a laboratory with 200 people. I noticed that the chemists and physicists were bumping around in the laboratory in patterns not unlike the ones I was observing in atomic and subatomic particles. The humans, just like the subatomic particles, created some
combinations that were duds and some combinations that were highly explosive. I thought, my gosh, what am I seeing here? I wanted to combine anthropology with my chemistry and math background, to better understand what I was seeing.

**Can you give me a corporate example of how humans mimicked the particles?**

An issue that is important to HR is how new hires are brought into the organization. When new hires come in, 80 percent of their time is ineffective. They’re bumping around in outdated processes, reading manuals that don’t make any sense and that no one follows—essentially a random and, for the most part, inefficient walk through the culture. We’ve learned that the pattern really changes when they are grouped with people in a network who can explain how work really gets done.

**What do you mean by “network”?**

We tend to think organizations ran according to organizational charts. I used to call the organizational chart the “corporate lie.” I don’t say it anymore because the organizational chart is a map of formal procedures and processes and does work in times of organizational stress. But humans are cantankerous, don’t follow rules, are naturally creative, and tend to step outside the lines. When they do, they create processes, behaviors, and habits that don’t follow the organizational chart. These are the knowledge networks that control how things get done. If you took an X-ray of the organization, you’d see four kinds of key networks: the social network, the work network, the innovation network, and the expert network. Networks have their own code, their own way of working.

**Talk more about the official and unofficial ways that things get done at work.**

The formal organizational chart gives you an indication of what the baseline is or what the legacy of the company is. But people always deviate and change from the legacy; that’s what causes organizations to change and to grow. It’s only a bad thing if you don’t understand what’s really going on. It’s tough to see this when you are part of the culture of an organization. But if you could fly at 50,000 feet above the organization, you’d see how the networks function and how information flows within the organization. The tools that we create help corporations to get this kind of perspective.

**Can you give an example of why a network is so important?**

I did a study just before, and another one a year after, a major corporate restructuring. The organization was very frustrated because they had a whole new organizational structure, but the quality and the quantity of work they were able to get done didn’t change. After analyzing the networks, I discovered that all the same networks were still in place and in the same patterns from before the reorganization. The hierarchical chart may have changed, but the way the work got done didn’t. At another organization, the exact opposite thing happened. Key people left, and they took their networks with them. What remained was chaos.

**Describe the patterns that you see within organizations.**

Each network has a large number of informal leaders who control the ways information is exchanged. These informal leaders tend to take on the role of hub, gatekeeper, or pulse-taker.

**Tell us about hubs.**

Hub people have a high number of direct ties to them and fit the analogy of a hub-and-spoke system. The hubs in a human system are typically very good communicators and transmitters of knowledge and have the trust of the people they work directly with. Since trust is like an underground utility line, you can’t see it. That’s why you’ve got to dig beneath the surface to see hubs and how they influence your culture.

**Tell us about gatekeepers.**

Hubs have a natural limitation: people can’t talk to 5,000 other people face-to-face. The most anyone’s been able to develop a trusting relationship with is 150; most people hover around 50. Organizations often have more people than that, so gatekeepers are people who link the hubs together. A gatekeeper is the opposite of a hub. Instead of being connected to a lot of people, they have few, but strategic, connections that bring together disparate parts of an organization. Gatekeepers, because they’re not connected to many people, are probably the most self-aware of all three positions. They know that information funnel through them and that they are in a position of power regarding the control of that information. So gatekeepers can do a lot of things to information, which can be good and bad. They can color information; they can make it disappear; they can sprays their personal bias like a patina on information and have it be forever colored as it goes across the organization. If a gatekeeper holds on to information in a negative way, he or she would be considered more of a bottleneck, and if a gatekeeper really moves information through, gets it to the right person on time, then he or she is considered a broker.

**And finally we have the pulse-taker.**

The pulse-taker is the least visible, the least intuitive, and to my mind the most interesting. Pulse-takers are indirectly connected to the greatest number of people. Another way of saying it is that pulse-takers have the widest range and the deepest reach in an organization through the fewest paths. I often communicate the role of a pulse-taker by recalling a famous pulse-taker in history, Niccolo Machiavelli. Machiavelli was a pulse-taker in the Italian court; he was unseen but all-seeing. And he’s fascinated us for over 500 years. If you map his interactions, you can see that he was very indirectly connected but had his finger on the pulse of the organization. He knew what was happening.

**So everyone is classified as a hub, gatekeeper, or pulse-taker?**

Everybody has degrees of all three in them. Our research has allowed us to develop algorithms to identify all the roles that each person plays and to what extent they play those roles at any one time in an organization.

**So how can HR professionals apply these anthropological tools at work?**

Here’s one example. Think about all the ways knowledge is passed on within an organization: succession planning, mentoring,
apprenticeship, coaching, etc. The more effectively you can use your hubs, gatekeepers, and pulse-takers to transfer knowledge, the more effective you can make your organization in managing and leveraging its own information for the customer in terms of products and services.

**How does your work help HR professionals?**

HR, like anthropology, needs to use the skill of participant observation to learn how to identify and observe informal leaders. But in the day-to-day workings of the job, HR is often pulled this way and that way as they put out fires. They don’t have the time or distance to be that focused about what’s going on. That’s why our tools are valuable, because they are another pair of eyes that can help an organization better see its internal structure and what’s required to change how it works.

I’ve spent the last 10 years at UCLA building the world’s largest database of information about corporate networks. We’ve developed a lot of proprietary algorithms to cut through all the data we’ve been collecting. No one has the time to observe over several years the real structure of an organization. So I call my process the “Cliff Notes of Culture.” It’s how you can get a fast and accurate read on a company’s culture. We can now take an organization’s networks and benchmark it against other companies by size, industry, etc.

We can also use the science of networks that we’ve developed to advise organizations how to restructure, merge, acquire another company, etc.

**Do you ever get tired of corporate corridors and long to work in a primitive society somewhere or go and study other primates, like Jane Goodall?**

In fact, I am doing exactly what Margaret Mead, Jane Goodall, and others have accomplished in their respective areas. I wanted to study the modern corporation, which is a living system, like anything else. At first, more traditional anthropologists asked me why I wanted to study corporations. It’s simple: because they’re strange and exotic when viewed from afar. They’re as bizarre as anything I’ve ever studied as an archaeologist in the land of the Maya in Yucatan and Guatemala or in the ancient tombs of Egypt. It’s a “living archaeology” of a culture, and I get to help executives piece together the puzzle and find hidden treasures of knowledge.

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