

# World Business

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## Trusted Connections

Technology is driving a renewed appreciation of the importance of networks as an essential part of business success.

By Karen Stephenson.

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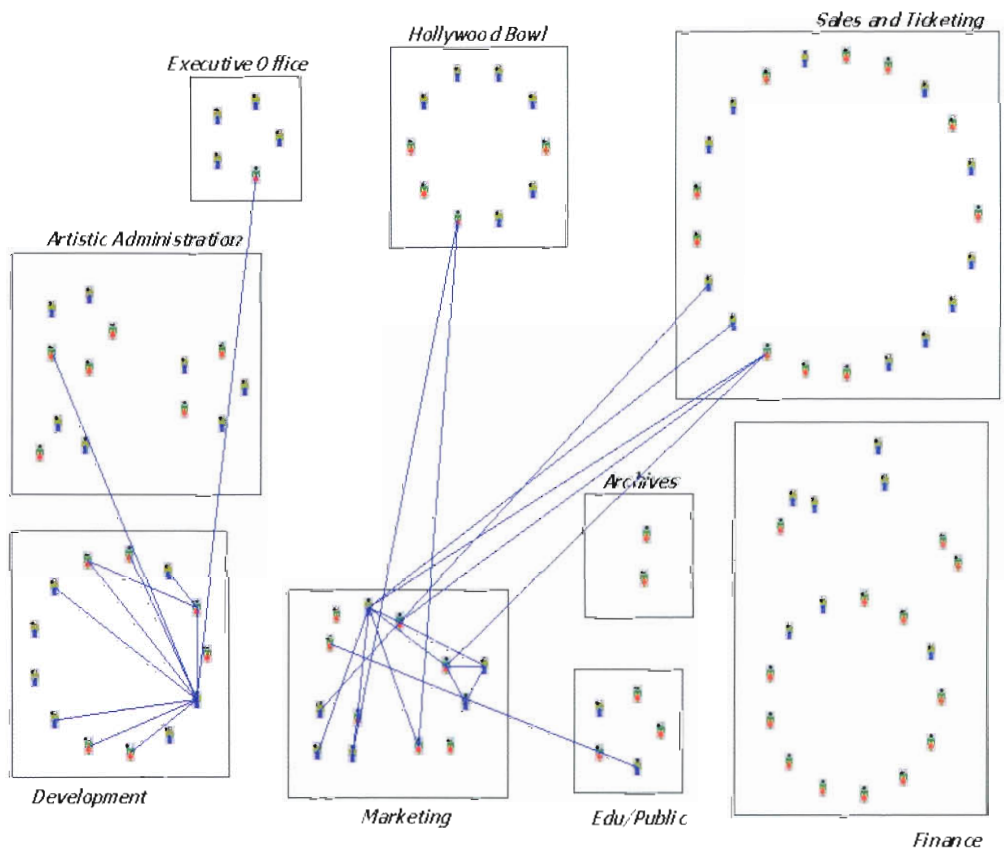
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ISSN 1749-9275 R49  
  
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# Trusted connections



Technology is driving a renewed appreciation of the importance of networks as an essential part of business success

BY Karen Stephenson

ILLUSTRATIONS BY Robin Hursthouse



In any organisation there are two parallel universes. First, there is the world of corporate authority from which formal rules and bureaucratic procedures unfold. The second is the world of trusted networks, which, research has shown, supports productivity and innovation. The former is characterised by the organogram (a diagram of a company's hierarchy); the latter is not. Executives and managers understand the former and endorse it, reasoning that if the organogram was good enough for them, then why bother with networks?

But networks are enormously important. Who makes a project succeed? Who stays and who is transferred? Who's next in line? The rub is that managers are much less likely to map out these networks because they are based on trust, which is unrecorded and unrecognised. If we measure these network patterns, we will discover that there are three key archetypes. These subtle influencers have a firm grip on buried organisational knowledge. When managers set the new information about networks against their organogram, they may end up rethinking how they deploy people within their organisation.

For example, have you ever been baffled as to why people in the same place cannot make things happen whereas those working at opposite ends of the world, often without the latest technology, overcome obstacles? The reason is that the winning project is run by people with a more balanced and positive network of trust.

Once, we had to learn geography in order to get around; in the IT age, we used technology to help extend our reach. In

future, we will need networks of trust to circumnavigate the globe. If properly mapped, trusted networks encode and decode culture. We inherited these prototypical patterns from our ancestors, who instinctively leveraged them daily to survive overwhelming odds through cooperation.

I have found that trust is built on three organisational personality types, which form an overall pattern:

*The Hub*, as in a hub-and-spoke system, is the most intuitive. This figure rapidly disseminates information and centralises work processes. Hubs are highly social and know how to connect with most people.

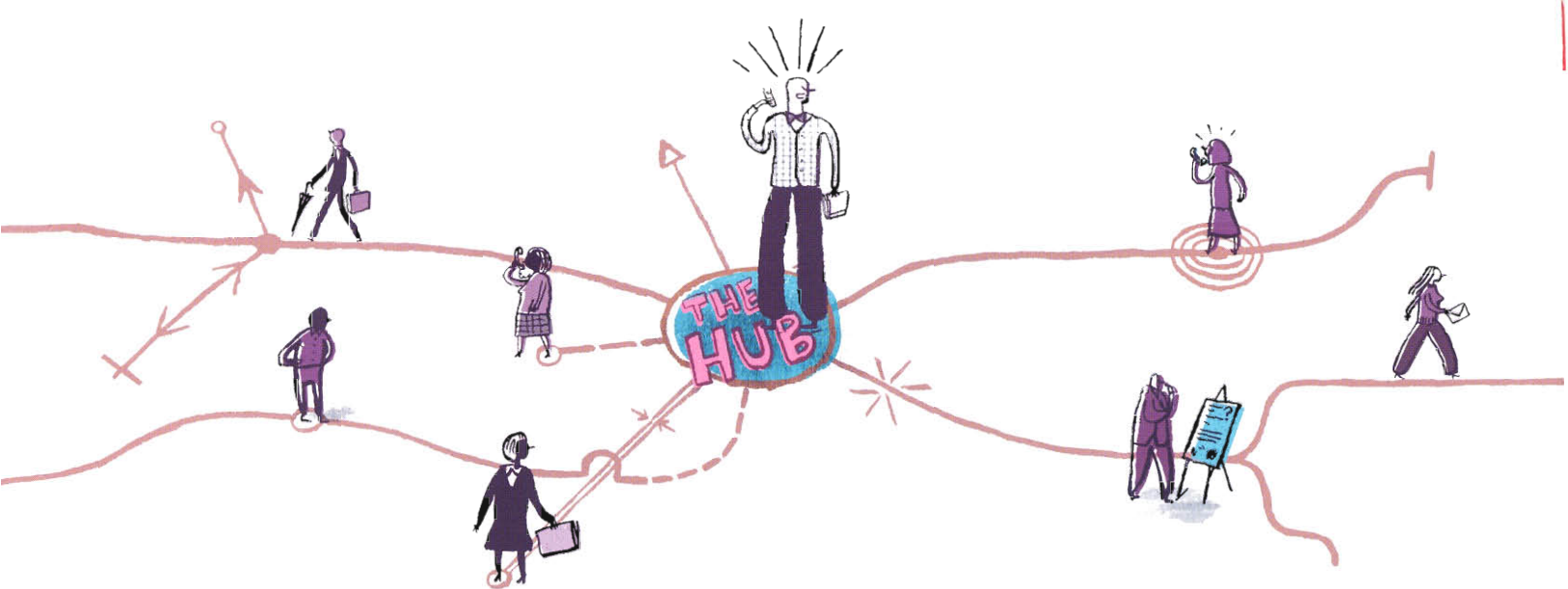
*The Gatekeeper* pops up on critical pathways because they create or loosen bottlenecks. Gatekeepers live by the rule: less is more. They make it their business to know the 'right' people.

*The Pulsetaker* is connected to almost everyone via indirect routes. They are the behind-the-scenes, in between and unseen person. They know the people who know the right people.

Together, these three network roles – Hubs, Gatekeepers and Pulsetakers (HGP) – comprise the DNA of culture. If you persuade the HGP that an imminent change is for the best, then cultural shift is accelerated. If not, then any hope of change will disappear. The good news is that these differential patterns of trusted connections comprise 5% of the people within any typical organisation. This means that only the right 5% have to be identified and targeted. The bad news is that if they were to leave their jobs *en masse*, get promoted or fired, then the trauma to organisational operations could produce a tailspin.

This scenario is avoided by properly identifying and then

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proactively cloning them. How do we do this? We first map and measure the networks. Second, we create an environment where more of the identified Hubs, Gatekeepers and Pulsetakers can thrive and multiply. The science of mapping and measuring networks of trust is both elegant and counter-intuitive, as the following case studies illustrate.

#### Who should stay?

In a merger of two corrugated container plants in 2001, global paper company International Paper wrestled with key HR decisions such as who should be outsourced and who should stay. The senior managers came to a set of decisions about retaining key players and outsourcing others based on the organogram, which was the only tangible map they had at the time.

I was brought in to map the networks in the two plants, determine where the key connectors were and if they confirmed the managers' decisions. The analysis identified unexpected retention candidates and in one particular case confirmed a decision but not in the expected way.

One employee – who fitted the profile of a Hub – was identified as a star candidate for retention by both the managers and the analysis of the trust networks. But I pointed out that this person also depended on his current network to succeed and, unfortunately, it was being out-sourced. I explained that over time the managers would therefore end up paying for an 'empty suit' because the real source of this individual's influence lay in his network. My advice was that key members of this person's network should be retained.

The analysis also revealed that two people who had been identified as Pulsetakers were a steady source of innovation and improvement in the operations at the plant. but these people were slated for retirement with no visible successors. When the managers considered the broader implications, they revised their decision, providing incentives for these two individuals to remain with the firm until suitable successors could be identified and trained.

Management learned that its decisions were based on individuals and not on the collective intelligence of the trusted network, which made those individuals powerful and influential.

#### Gender division

In 2000, I came on an interesting anomaly in the European division of banking firm JP Morgan, while working on a study to measure and quantify the firm's social networks. I looked into the way in which women in the firm tended to communicate more with their male peers, thereby reducing the network's effectiveness. The sex of the region's 3,000 MDs in Europe was evenly divided, the culmination of the chief exec's dream of achieving diversity and gender equity.

In mapping the networks, I discovered a precipitous drop in female-to-female communication, making up only a scant 10% of total communications. It was puzzling given the even gender split. Why was the level of communication unpredictably low among the female population? I interviewed the most senior female MDs about their initial experiences in the firm. They all had strong male mentors who had helped them get ahead. I

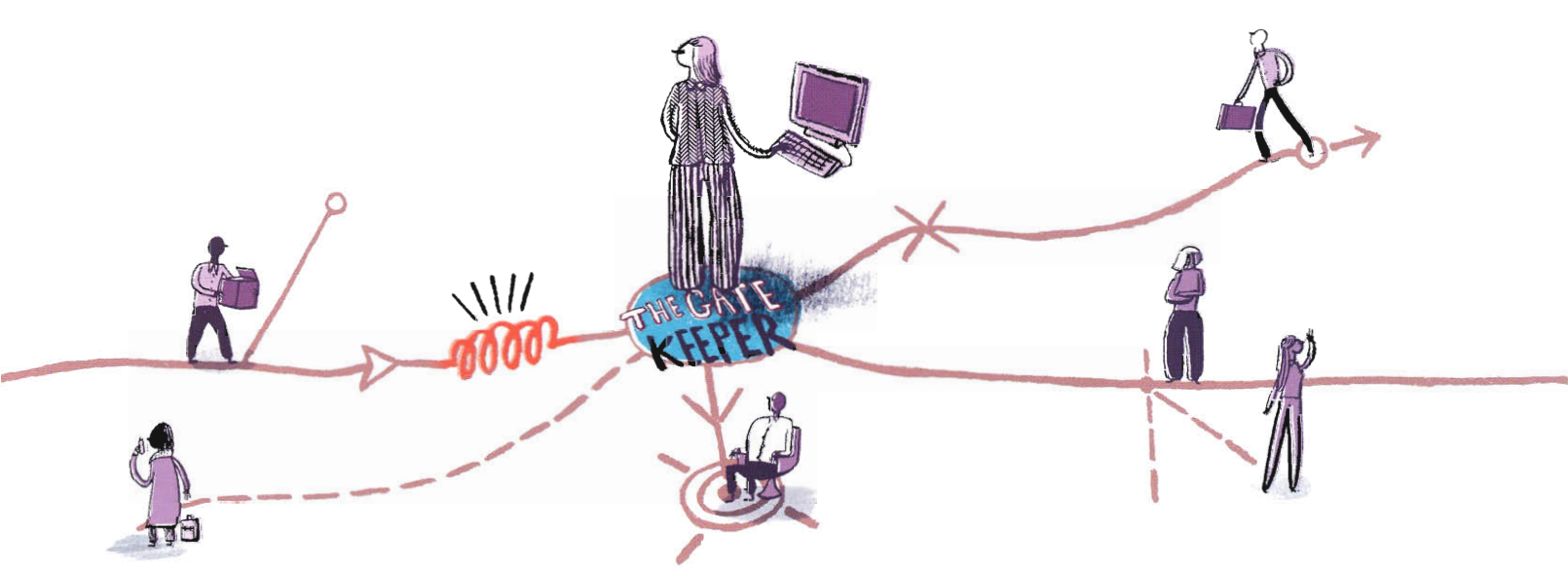
#### THE SPEED OF TRUST

Locality is a principle in quantum mechanics that holds that an event that happens in one place cannot affect an event somewhere else instantaneously. For example, if a star blows up, we would not know about that event until a light beam had had time to travel to earth. Essentially, no signal can propagate faster than the speed of light. But in 1935, Einstein, Podolsky and Rosen published a paper that proved that under certain conditions locality

breaks down (Einstein concluded that quantum mechanics was incomplete and called this phenomenon 'spooky at a distance'). Thirty years later, this phenomenon was proven by JS Bell. This means that somehow (and we don't know how, only that the proof is complete) information (eg, an electronic charge, a picture, a thought) appears to travel faster than the speed of light and can influence events far away. Two people halfway apart around

the world can communicate with each other seemingly simultaneously in the same way two electrons shot from the same source with different spins can simultaneously 'effect' and change each other's spin faster than the speed of light (this is called the theory of entanglement; for recent experiments, see [www.csmonitor.com/2001/1004/p15s1-stss.html](http://www.csmonitor.com/2001/1004/p15s1-stss.html)). Trust seems to work in the same way; hence, the quantum theory of trust.





interviewed the female MDs who had been promoted more recently and asked them about their initial experiences. They also had a strong male mentor to support them, following in the footsteps of the senior women.

Then the penny dropped. The more recently promoted female MDs were mimicking the behaviour of the most senior women. While the older women may have had few options as to who was to be their mentor because they were truly the minority at the time of their hire, the younger generation had a choice but hadn't exercised it. Instead, they were copying the older generation, choosing almost exclusively male mentors.

What started out as a strategic mechanism for rising in the ranks as a minority player was being propagated when the need no longer existed. And what's worse, it was hurting the firm, slowing down communication at the senior level. From that day forward, cultural behaviours shifted and productivity eventually hit an all-time high.

#### Executive teaming

After the popular rise of the personal computer, IBM stumbled on to the transformational scene. But it arrived battered and bruised. Why?

In the early 1990s, I was asked to analyse executive decision-making among the top 24 executives reporting to the CEO. I determined from an analysis of the networks that the initial three stages of decision-making went according to plan, co-operative discussions its hallmark. But somehow it derailed in the fourth and final stage of implementation, the networks of

trust all but disappearing and executive behaviour devolving into divisiveness.

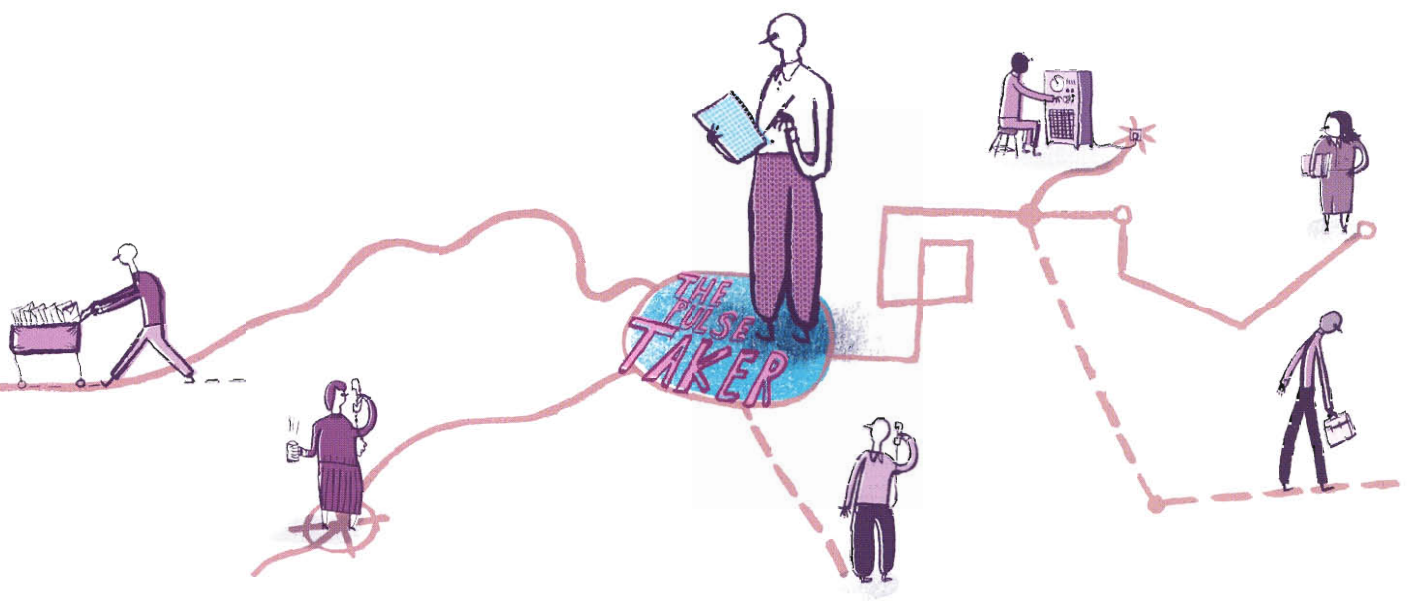
Each division's profits and margins were posted side by side in quarterly reviews, so that executives could size each other up. I was told that performance was judged on an 80/20 split: 80% as individual performance and 20% as an executive team. I suggested reversing the percentages, with 80% for team behaviour and 20% as an individual performer based on divisional performance. But the idea of linking divisional and individual performance to each other was totally foreign, if not a complete affront to the way IBM understood its business.

Six months later I was called back. By now the market was leaving IBM well behind and so my advice was heeded. As one executive said: "When I started out at IBM, the social contract was to work hard, collaborate and work your way up the corporate ladder to a reward of greater individual freedom and perks that come with the office. And now you're telling me that after all these years, my success depends on their success? If they are failing, I have to jump in and help them in addition to doing my own job?" As we know, a cultural shift did occur at IBM, one social contract at a time.

#### The bigger picture

In Heterarchy (a network of organisations with equal power and authority linked together by common goals), the success of each unit depends on the bigger, institutional picture. The challenge is to manage and lead individual institutions as though they are part of one mega-organisation.

It should come as no surprise if we sometimes find ourselves lost in a fog with no co-ordinates. But if that happens, remember, trust is the only true north



These challenges occur across industries including but not limited to manufacturing, public private partnerships and health care. The Japanese *keiretsu* (a combination of firms linked together horizontally and vertically) was an early attempt, successfully implemented in manufacturing.

Local Strategic Partnerships (LSPs), an ongoing attempt across nine regions of England and Wales to encourage better delivery of social services, depend on the successful integration of services from a portfolio of organisations spanning the public and private sectors. In the US and other countries where healthcare is privatised, there is yet another challenge – the safe and efficient delivery of healthcare where no one organisation has total responsibility for that delivery.

A core network of trust can glue together big organisations. A network of Hubs, Gatekeepers and Pulsetakers is drawn from all organisations and is responsible for the managerial integration of all the organisations. The bottom line: the institutions are not successful unless all are effectively collaborating with each other. In the case of a mega-organisation in healthcare, a great deal is at stake. People die, but not from their own disease. Instead, their deaths are the direct result of an organisational pathology – the failure to collaborate effectively. Network analysis represents one of the few but effective approaches to provide connected solutions stemming from interdependent institutions that must collaborate.

### Network approach

In 1997, I was involved in mapping the social networks of a Belgian energy company that wanted to understand why two leaders had such different outcomes in a personnel department comprising 500 people. In the first instance, one leader was admired by his people but his divisional output was below par. In the second instance, the leader was relatively invisible to his people, but his divisional output met or exceeded projections almost every quarter. What accounted for the difference between these two leaders doing similar work?

In the first instance, the manager deployed his 20 deputies to oversee the way work was done. The deputies were the eyes and arms of the executive and implemented a software feedback system that monitored the rank and file, using time-study metrics. After evaluating the reports, the deputies would report back to the executive in monthly meetings.

In the second instance, the executive developed 20 project teams that were integrated across different functions and roles.

The executive spent time with each team to ensure quality performance and to help resolve issues. Reporting occurred on a monthly basis, but without time study metrics. Informal meetings occurred on a daily basis.

In the first instance, the executive worked through the organogram; in the second instance, the executive worked through integrated service teams. It's rare to find two text-book cases of leadership so perfectly illustrated in practice: one hierarchical and the other more networked. Stylistically, it's difficult to say which is better. But in this case, it was clear that the more networked approach reaped better results. It suggests that good leadership may be more about constructing a trusted team and less about leaving a mark.

### Conclusion

Our world has become both small and flat largely due to technology – technology that's pushing us to the far side of a virtual divide – and producing bizarre behaviours such as people sitting next to each other, but communicating through email rather than speak to each other. And yet technology is also driving a renewed appreciation of how much or how little we trust one another across a continental divide of cultural differences. It should come as no surprise then if we sometimes find ourselves lost in a fog with no co-ordinates. But if that happens, remember, trust is the only true north.

Long ago when the world was big and round, trust enabled our primordial ancestors to co-operate and thereby overcome overwhelming environmental odds. As the world became smaller, trust diminished in importance; but in our interdependent world, it is increasingly recognised as an essential part of business success. It's trust, not technology, that enables teams to succeed.

Modern-day travel may have broken the sound barrier, but elemental trust broke the speed of light barrier long ago, enabling people to work at great distances in complete synchronicity because they trust one another. It's strange how trust eclipses distance, but it does and we will need this quantum quality, now more than ever before. ■

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 Karen Stephenson is CEO of enterprise software firm NetForm and adjunct professor at the Rotterdam School of Management, Erasmus University. This article has been adapted from her forthcoming book, *The Quantum Theory of Trust: how networks work and organisations behave*, FT, Prentice Hall, April 2007



Dr. Karen Stephenson is president of NetForm, Inc, recognized as one of the top 100 leading innovation companies by CIO in 2001. In 2006 she was awarded the first Houghton Hepburn Fellow at Bryn Mawr College for her groundbreaking contributions to civic engagement. She is internationally recognized for her pioneering work in detecting, diagnosing and designing human networks to solve a variety of complex problems: (1) engineering tipping points (cultural changes or shifts) in closed cultures and open markets, (2) remediating acquired organizational deficiencies within large-scale public and private organizations and, (3) developing novel techniques for building sustainable collaboration in public-private partnerships with governments and public, private sectors.

She has been featured in the media and press, most notably, The Financial Times, The Economist, World Business, Business 2.0, The Wall Street Journal, Forbes, The New Yorker, The Guardian, Strategy+Business, CIO, Fast Company and Wired. She has been a professor at several universities including but not limited to the UCLA School of Management, MIT's Sloan School of Management, Imperial College, Harvard's Graduate School of Design, Rotterdam School of Management at Erasmus University.

She received her Ph.D. in Anthropology at Harvard University, an M.A. in Anthropology at the University of Utah, and B.A. in Art & Chemistry at Austin College, TX. You can reach her at [karen.stephenson@netform.com](mailto:karen.stephenson@netform.com) and you can google her or read about her work and her company at [www.netform.com](http://www.netform.com) and [www.drkaren.us](http://www.drkaren.us) and [www.drkaren.co.uk](http://www.drkaren.co.uk).

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