

Skill in social networking technology such as Facebook could be an essential qualification for project managers of the future. To maximise its potential, **Janet Smart**, Saïd Business School, says that organisations will need to enable those working on a project to communicate in this way in order to share information and expertise.

PROJECT NETWORKING

A NEW science has emerged in the past few years that straddles the divide between physics, biology and sociology – the study of networks.

Road and rail networks, telecommunications and computer networks are a vital and familiar part of modern life. We experience the flow of traffic along links of these networks, and know about the impact of the congestion that can be caused by damage to a link, or by traffic demand that exceeds the link's capacity.

Although the road network has a relatively fixed structure, other networks, such as a friendship network, have a structure that is constantly evolving. New friends are introduced and added to the network, while other relationships may weaken, or a person may leave the network, perhaps they moved away or left the football club or some other life change has occurred.

The new science of complex systems measures the properties of many different kinds of networks, and studies the phenomena that cause networks to grow and evolve.

Scientists at the University of Oxford have been investigating different kinds of social network that could have lessons for project management. One is the New York garment industry, and the other is the network of private telephone callers in a European country.

The New York garment industry makes and delivers the goods for many of the famous names of fashion

– Calvin Klein, Donna Karan etc. The industry consisted of thousands of specialised firms, connected in a web of social and economic relationships. In 1985, there were over 3,000 mutually connected firms, in a vast trading network, in the New York garment district. By 2003, this network had shrunk to fewer than 200. Despite this dramatic collapse in size, some properties of the network of garment industry firms remained surprisingly constant over this 20 year period.

One of these properties is the number of other firms to which each firm is connected, known as its degree. (See figure 1.) This declined slowly from

about four to about three over a period of almost 20 years, with the average never straying outside this range. Some firms

had a very large number of connections, and others had only one or two, but the average barely changed.

The diameter of the network is the maximum shortest path between any pair of nodes in the network, measured by the number of other links that you have to pass through to get from the source node to the destination. Despite the number of firms shrinking from over 3,000 to fewer than 200, the value of the diameter stayed at around 10.

These findings suggested that there were some social or technical or cultural effects that homogenized the overall network – perhaps to do with the capacity of the nodes for coping with the

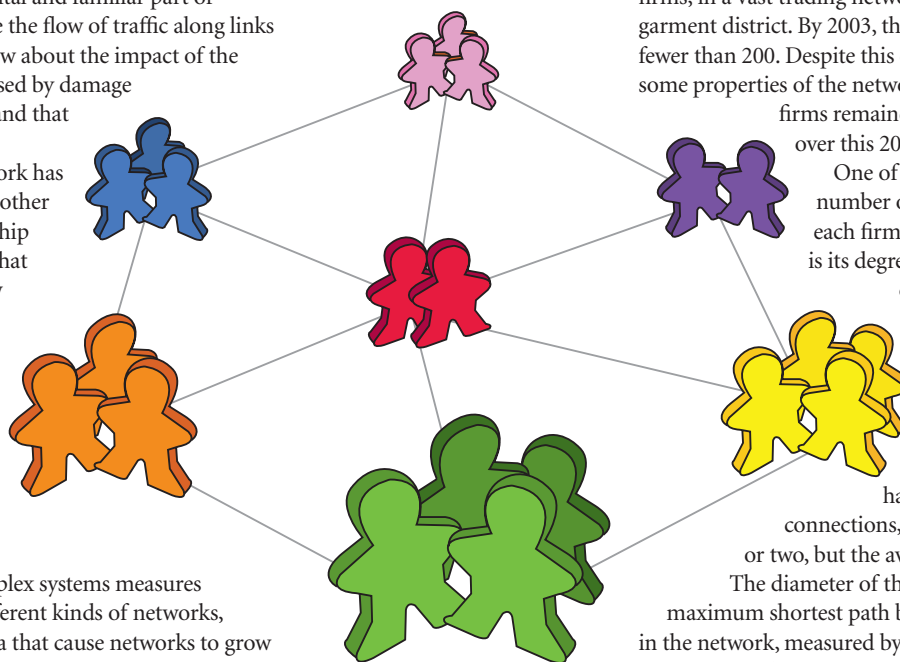


Figure 1. The degree of a node is the number of other nodes to which it connects. In this example, the central node has degree six.

demands of social and business interactions.

The other network that was studied was a network created by over 3,000,000 personal phone calls made over 18 weeks in one European country. The study compared the structure of the network based on the nodes that called each other most frequently, and those that called each other less frequently.

The structure that emerged was that the frequent callers clustered into groups who were likely to contact each other regularly. These may be families, or workmates or members of the same club or team. Although the clusters were well defined, there were not many links from one cluster to any other. These inter-cluster links were provided by the weak links, i.e. calls between people that contacted each other less frequently.

This suggests that within social networks, ideas or diseases or customs remain fixed or trapped within close clusters, but the weak links cause the ideas and innovations to spread throughout the whole community.

So, we know that networks can be surprisingly consistent, and that the degree of connectedness can change very little. We also know that weak links are important for preserving the structure of a network. But what has this to do with project management?

Well, we know that a project team is also a social network, and we know that a project team has to solve problems. Applying the findings from the research suggests some other ideas.

A project team brings with it connections from previous collaborations, but these links are likely to be weak, compared to the strong links within the current collaborating teams. However, these are exactly the links that are likely to be vital for acquiring new ideas, and help with solving problems.

We also know that folks are likely to have a limited capacity for maintaining links with colleagues, past and present, and that capacity is not likely to change very much within a fixed technological and business culture.

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However, if we see the possibility of maintaining and reviving weak links as a useful means to bringing in new ideas and addressing problems, then we need a step change in the technological and business culture to enable that change.

And that change is already there, and is happening around us. Social networking sites, such as Facebook, Bebo, LinkedIn etc are creating the extra capacity to maintain links, and to create new links. Special interest groups and discussion forums can be created to solve short-term issues or deal with on-going problems. Video and audio clips and presentations are available to everyone, so we can create the means to disseminate ideas and issues within our own close groups, and beyond.

But apart from the technology, the generation that is familiar with and committed to social network technology is already being recruited into project teams. They will challenge the way that projects are managed, creating new informal structures that sit alongside the formal reporting structures and enabling new opportunities to work together in a virtual and communal space.

Looking ahead, how will this affect the future of project management? A person will be valuable not just because of their formal competences, but because of their social abilities to maintain a wide, competent network, and their ability to derive value from that network.

So, think again before banning the use of Facebook at work, you might be turning away the competitive advantage of the future.

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PROJECT PETE

by Mitch

