The power of networks

Networks have long been extolled as powerful tools for business. Robert Hannigan, former Director of GCHQ and Chairman of BlueVoyant, Europe, talks to Inflexion about establishing and maintaining them.

Networks can be phenomenal tools if they consist of the right mix of people. To mitigate the self-selection bias inherent in networks, an open mind towards recruitment is key. Cybercrime networks for example have a core membership group and are good at pulling in appropriate talent in an agile way. They do this on an ad hoc and short-term basis, operating very fluidly and flexibly. This is very important in the modern, data-driven economy.

Once you identify the right people, motivation is key.

People need a common purpose, an enthusiasm around an ambition that is higher than themselves and has a reward beyond the purely financial. It needs a meaning beyond their everyday experience, so finding a purpose which the network coheres around is absolutely key.

Tapping into that motivation to get a goal to aim for is very important. This is particularly true when the network is disparate and may not meet often, so they need this cohesive purpose to bind them.

Loyalty to networks is important and comes from having the right leadership.

This is absolutely crucial if you are at the forefront of innovation, since you'll make a number of mistakes – as is normal when venturing into new areas. But in order to take risks, which are inherent in entrepreneurship, you have to have the confidence the people will come with you, rather than tear you apart when you fall down.

You need loyalty to take risks, and you need risks to get innovation.

Robert Hannigan

Robert Hannigan was Director of GCHQ, the UK government's largest intelligence and cyber agency, from 2014-17. Hannigan has a long history of involvement in cyber security and technology, having drawn up the UK's first Cyber Security Strategy and outlined the government's ambition of making the UK 'the safest place to live and do business online'. He set up the UK's National Cyber Security Centre as part of GCHQ and launched the active cyber defence programme for the UK in 2016.

Hannigan served as Security Adviser to the UK Prime Minister from 2007-10, giving advice on counter terrorism and intelligence matters. As Head of Intelligence, Security and Resilience in the UK Government's Cabinet Office, he was responsible for the funding and oversight of the three UK intelligence agencies. For nearly ten years Hannigan lived in Belfast and worked on the Northern Ireland Peace Process as Tony Blair's principal civil service adviser.

He is a Fellow of the Institute of Engineering and Technology and a member of the Ministry of Defence Innovation Advisory panel with Ron Dennis and Tim Peake.

Technology is an enabler of networks, but beware of self-selection.

Social networks are worse at self-selecting than are humans: algorithms dictate this. Though it is suboptimal for creating a network, there is no question that technology can help maintain an established network's links and communication easily and cheaply.

Diversity is needed to optimise a network.

The real purpose of diversity is to encourage different ways of thinking. People with various life experiences think differently, and when you get them working together you get the 'magic' of creativity and innovation.

The self-selecting nature of many networks can work against diversity. Sharing a common ultimate goal is insufficient since if those people are too similar, they will lack the sufficient tension for debate and the ideas that can generate.

Grey uniformity leads to stagnation and group-think. The eccentricity which flourished in Bletchley Park in the 1940s was down to the diversity there.

Recalling the success of Bletchley's head Alastair Denniston is a useful lesson in leadership. He understood the need to enable people to do brilliant things, rather than micro-managing. Acknowledging the talented staff he surrounded himself with, he got the best from them by being a great enabler of young, diverse talent. That remains a key management tool today.

Denniston had a great network – before WWII he saw that a completely different type of person was needed for codebreaking in the new context. He went round scouting universities for mathematicians because he knew that was what would be needed. His teams went on to create the world's first programmable computer. He was truly at the forefront of the digital revolution.

Diversity in teams, a common goal and enabling talent is crucial for getting the most out of a network. Without these, you will limit your combined potential. It was true at Bletchley Park in the 1940s and it remains true today.

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The importance of engagement for networks and management.

We talk about engaging and motivating a lot in management. It's important to take time to sit down and think 'what motivates me to go to work? What excites me?' This is particularly crucial as you get into later stages of your career, when it becomes easy to lose sight of your passions.

A shared purpose is helpful in motivating for the longer term. This tends to be quite difficult in a management role, as you're focussed on delivering short- to medium-term targets. At GCHQ this meant fighting terrorism today while also trying to ensure that in ten years' time we were at the top of our technology game and can meet tomorrow's threats. It is

hard to get that balance right, but keeping a common goal front of mind and being prepared to take risks helps.

Being passionate about something helps engage people beyond financial gain. You will be paid less to work in government, so GCHQ's recruitment emphasises its mission; it is genuinely interesting and worthwhile work. People do it because there is a motivation beyond salary. Understanding this motivation in the entrepreneurial world – it's about solving a problem for people – sometimes a problem you don't even know you have – is very exciting.