

THE ADSTOCK SCIENCE CLUB

The Ghost in the Machine – A cautionary tale

My name is unimportant, if I told you, I would probably have to shoot you - sorry, I just couldn't resist, insider joke. I live in a nice house, in a nice village just a few miles from Cheltenham. I have a nice wife, 3 nice kids, a nice dog and a nice car, so why am I about to be a traitor to my country?

Let me give you a little bit of background first. I work as a security analyst in the signals division at GCHQ in Cheltenham. My job is to monitor all communication traffic, whether it be email, phone, cellular, text etc. etc. Of course I personally don't vet every single communication myself; GCHQ's super-fast computers do most of the leg work. They have feeds in from all sorts of different communication networks and are able to scan all these for any words or phrases which may indicate a threat to the realm. I get a prioritised list of the most threatening, I then have to make a judgement and pass the really serious ones up the chain for further investigation.

A few days ago I received a call from a chap called Casper; he explained he represented a group of mercenary hackers called "The Ghost in the Machine". Up till now I had not heard of them. He wanted me to inform him of any information that may be of interest to them.

"I've no idea what you're talking about", I said. He explained that I had no option but to agree to his demands due to my medical condition. I have a problem with my heart's natural electrical system, it can sometimes go a bit wonky causing it to miss a beat or three and sometimes it can stop my heart dead. Luckily I have a "state of the art" pacemaker, one that can automatically detect its condition and automatically give it a jolt when needed.

My pacemaker, through a Bluetooth link, is connected at all times to a special mobile phone. This communicates with an AI (Artificial Intelligence) Expert system, somewhere in the world, allowing it to download data from my pacemaker to see how well it is performing. It can also upload program changes and other tweaks depending on what it finds. Years ago this could only be achieved by a visit to a major cardiac unit. Now it is all automatic and near on instantaneous.

I told him to get lost and said I would call the police if he ever called me again.

I slowly opened my eyes. I was lying on the ground. "What the hell's going on"?

My phone which was lying next to me started to ring. I answered, "Yes".

"Hi, this is Casper. How are you feeling? I hope you are OK".

"What just happened?" I said

Casper replied "For some time now my organisation has been hacking into many, shall we say, less secure government computer systems. The one that monitors and controls your pacemaker and therefore your heart was one of them. A few minutes ago as a demonstration of our capability, I sent a command that gave you a heart attack. Now about that information we want!"

That was Fiction, though the technology to do this already exists today. This, however is real –

One of my clients, who has recently been having problems with virus attacks on her new laptop, called me a few days ago. While she was on the phone to me her laptop was on and displaying a fake "Police Notice" of a fictitious outstanding fine and a demand to pay some money. She obviously considered this a bad idea. What happened next was scary. While I was talking to her, her laptop also started to talk to her and even scarier, when she turned to look at the screen, it was taking pictures using the built in web cam and displaying them for her to see.

Who knows who else may be watching - Beware of The Ghost in the Machine!