THE ADSTOCK SCIENCE CLUB

At our Science Club meeting in August we took a look at the world of data security and how your computer can be at risk at being infected with malware and viruses as well as the potential of it/you being hacked.

We began by taking a look at what constitutes information and data:- everything from cave paintings, punched cards used in 19th century looms to the advent of Google, Facebook and Twitter. We live in a sea of information, in fact David Schmidt of Google recently stated that we now create as much information in two days as we did from the dawn of man through 2003. Whether or not this is totally accurate is not the point, the point is that we, as individuals, are in the process of creating vast amounts of data, photos, documents, music etc. which through our connection to the internet may be at risk. There would, I'm sure, be serious consequences if this were to be wiped out by some kind of problem or virus attack. Not only that, but most of today's businesses would probably collapse if their data was destroyed. But what if you or your businesses data is not destroyed but hacked by somebody else? Then **your world is their oyster**, everything from your passwords, personal information up to and possibly including your bank account details, are open to their slightest whim. So **lock up and back up** your data. Lock up by using strong passwords. You wouldn't believe how easy it is to crack a password that only uses lower case letters. Use some capitals and numbers as well. Back up, using backup software, to a separate backup drive, memory stick or even "The Cloud". Windows has its own backup capability but there are a number of good free backup applications available over the Internet which do a better job.

From here we looked at a few of the methods and tools that hackers could employ to find out more about you, though I must admit, looking at some peoples Facebook pages, makes me wonder why they would bother going to all that effort. There's no point in keeping your computer protected if you are going to blab your whole life, in detail, for everyone to read on Facebook.

Finally we took a look at where this might be all leading. A couple of terms you may not have come across yet, but which are gaining prominence, are "the Internet of things" and M2M, "Machine to Machine". As technology and Internet usage becomes more widely used not only by us, but also increasingly by everyday devices including fridges, washing machines, TVs, medical equipment, and cars, the potential for hackers is growing beyond your wildest dreams.

During our last meeting we covered something completely different, a topic currently not far from the news – Hydraulic Fracturing or Fracking. We took a look at where all our energy came from, and how much we are able to use directly and indirectly, through oil, coal and gas etc. We also saw just how much more we are going to need in the future. After watching a couple of short videos around this subject we had a discussion on Fracking's impact on our planet. There were a number of different views expressed with some spirited conversation taking place. Never a dull moment!

If you are interested in science and would like to find out more, or have your say on some of today's important scientific issues, then why don't you come to our next meeting on Thursday 10th October and take an active part. Don't just sit there – Join us!

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