If you've done nothing wrong, you've got nothing to worry about!

Talk and discussion notes -

1) Introduction – what do we mean by data? Is there a difference between data, information and knowledge?
2) Data, an historical perspective
    - From cave paintings to notches on pieces of wood or on tablets of clay man has endeavoured from the earliest times to keep records of his activities. The advent of the first printed bible in 1456 by Johannes Gutenberg led to many innovations for creating, storing and disseminating information.

      The next major step in this process came about through work carried out by inventors such as Joseph Marie Jacquard in 1801 who devised a system where the process of weaving complex patterns in cloth could be automated by using wooden cards with holes punched in them. This was one of the first occasions where information in the form of a stored "program" was used to control the function of a piece of machinery. Musical instruments such as the Pianola were invented in the late 19th century using a similar system using paper instead of card.

      Moving forward to 1896 The Tabulating Machine Company, later to be renamed IBM, devised and sold systems using punched cards for recording and processing information.

      It was not till the advent of the electronic age in the early twentieth century that things really started to hot up. Not till the invention of the thermionic valve and later the transistor and finally to the Integrated Circuit or Chip, today's microprocessors can contain many billions of transistors, did the world of data recording and processing come of age.

      Now we have vast "Server Farms" dotted around the world which hold most of man's accumulated knowledge in some form of electronic format or another. With the advent of the Internet, the World Wide Web and Cloud Computing has this knowledge become mostly freely available to the general public.

      However the information being gathered and stored can be of significant worth to interested parties, some of whom may have our best interests at heart but others may only have their own best interests at heart. Do you know who has your information and what use they intend to put it to?

3) What constitutes personal data and should you be worried about who has access to it and what they do with it. Medical, legal, shopping, YouTube, Facebook, Twitter, Linked-In, business, financial, Outlook, Holiday, convictions, credit etc. etc.
4) How is data collected – forms, Internet, personal contact, telephone, card readers, cameras, RFID devices, Satellite imaging, Google street view, library books, cheques, etc.
5) Why, how and where is data stored – a historical look to the current day
6) How safe is it? Methods by which your data can be accessed - from online forms, Cookies to Viruses, Trojans and Malware and even your web-cam.
7) What is Hacking?
8) Apart from data what else can be Hacked? Computers, routers, networks, national governments, infrastructure of all kinds, transport systems. Cars are a good example, it is estimated by 2015 more than 20% of all new cars will be fitted with embedded connectivity solutions. There will be a growing demand for automated online assistance and remote diagnostic with fault analysis and repair or work around facilities, this linked to GPS and other mobile facilities will enable both manned and automated systems to aid in sorting out road side problems without the need for the RAC/AA/Green Flag etc. to be called out. Most modern cars are now mainly "fly by wire" with their steering, breaking, engine and other systems being controlled through intelligent computer control. All this technology can be hacked

and reprogrammed if robust security systems aren't built in from the start.

"The global connected car market will be worth €39 billion in 2018 up from €13 billion in 2012, according to new forecasts from research firm SBD and the GSMA, which represents the interests of mobile operators worldwide. Over the next five years, there will be an almost sevenfold increase in the number of new cars equipped with factory-fitted mobile connectivity designed to meet demand among regulators and consumers for safety and security features, as well as infotainment and navigation services."

9) What can happen if your data is accessed?
10) What can happen if your data is incorrect?
11) How can you keep it safe – some simple rules, If you don't want anyone to know, don't put it on the Web! Don't tell everyone that you're having a party, going on holiday, out shopping etc., Use passwords.
12) What to do if it's been got at.
13) Making backups and keeping them safe.