Introduction & Outline of Problem

Today, the world is becoming more and more connected to the internet, as people become reliant on its services. Around the world, just over 50% of the people have access to the internet at home, while in the western world, over 80% of people have this access. Ever since the CEO of IBM stated that the market for personal computers was around 6, people have attempted to prove him wrong, with around 350,000 computers sold every year today. And while computer sales in the western world have peaked in 2013, the rise of portable computers are only rising, with mobiles, tablets and laptops filling the void of desktop computers. With this monumental rise of the internet on every device, the number of passwords the average person has vastly increased, till around 19 today. Every single website (including some of mine!) requires you to create a password, making them intensely hard to remember, especially given the list of recommendations that arise with them. While most sites require passwords of at least eight characters, most recommend including at least one capital letter, one lowercase, one number and one special character. This makes any possible password even harder to remember, as one clearly has less association with words with special characters than with alphanumeric characters. Additionally, with these also come the recommendation not to reuse passwords, making the formation of passwords as well as management a challenge. Thus, the password challenge is a complex one. How does one create suitable passwords? And how can one store them? While the challenge befalls the most technologically savvy worst, as they have even more passwords, the problem is clearly a widespread one. Over 40% people in a recent survey had been hacked in some way, showing how they are failing to choose secure enough passwords, while of the other 60% over half showed concern about their passwords. Meanwhile there is an endemic problem with people reusing passwords, with 4 out of 5 admitting this in the same survey. Alongside this, the number of hacks is increasing at a rapid rate, with sophisticated pieces of software able to break into any accounts with even slightly insecure passwords.