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Bruce Schneier Talk Write-Up

Bruce Schneier presented to us topics related to his work on cyber security and the current trends in computers today. He started by describing just how much computers have come to be a part of our daily lives. Most electronics today; cell phones, cars, thermostats, etc. , are computers with peripherals. Each of these devices gains knowledge about our world through sensors, such as GPS coordinate tracking, microphones, and other input commands. These computers then all operate on small to advanced processors, then each has activators, or means to interact with us.

With the definition of just how many things are actually computers and how they affect us, Bruce Schneier told us that attacks on these devices are generally the same, but can have very different results. There may be a similar method to attacking your phone and your car, but they have different activators. So one can shut down and the other can kill you.

Because of the potential severity of such breaches, Bruce Schneier described various ways how the need to find security solutions, since there are a number of common trends. Attacks, he said, are far easier than defense, the attacker is far more mobile, and have a less complicated time than the defended. Also, with all of our devices being so interconnected, it is easier than ever for attackers to attack more devices. This subsequent scaling is empowering to attackers, who are able to affect so many people so quickly. It only takes one smart person to come up with the source code and then others can simply use it for their own use. Also, many of the older devices, like DVRs in thermostats, are never replaced and not secure. This simply can't continue.

How can we prevent these trends from continuing? Bruce Schneier said that currently there are two schools of thought with regards to implementing security to our devices. The first is the avenue of securing correctly before a problem ever occurs. Such things include dangerous things like that buildings, cars, and planes. These have become so secure, we really never worry about them, but the code to produce this security takes forever to come out. Then there is the realm where your phone and other things fit in, where the devices are simply produced, then security problems are dealt with as they come out. This mode of correction is quick and agile.

What Bruce Schneier suggested that what we need is a government board that is aimed to address these issues in both a guideline secure and agile quick manner. We can't expect the market to fix these things and we must have a smart team be on the job. Ideally, if there could be a mix of policy makers and technologists. Technologists, he said, need to do policy and policy makers need to know technology.

In conclusion, I learned all of this and more from Bruce Schneier and found it all quite fascinating.