CYBERSECURITY TRAINING FOR TEACHERS (CTT)

Week 2: Identifying Cyber Security Attacks and Attack Vectors (Transcript)

In the previous video we looked at various cyber security attacks on online learning platforms, and how to mitigate against those attacks. In this video, we are going to look at various cyber security attack vectors and how to identify an attack. Attack vector is a path used by a cyber security criminal, or attacker to gain unauthorized access into a system. What are examples of attack vectors? First, we have weak system login credentials. When your system login credentials are weak, it's so easy for the attacker to guess your password or your credentials and gain unauthorized access to the system. And hence compromise you or compromise the system.

Malicious insiders are another form of attack vector. And what do I mean by malicious insiders? Malicious insiders are people who work within an organization or within the school. In this case, as a teacher, your colleague can steal your mobile device, or your removable media and gain access to confidential information. We also have misconfiguration as a vector of an attack. In misconfiguration, if you do not secure your system with proper login credentials, you can easily forget them. And now you'll be locked out of the system and you'll not be able to perform your normal functions using that system.

Ransomware is also another attack vector. Through ransomware an attacker gains access to your confidential information and encrypts it so that you're not able to access it unless you pay a given amount of fee to be given a key to access your information.

Lastly, we have phishing as an attack vector. Through phishing, the attacker is able to collect information from you, for example, personal identifiable information. And once they get this information, they'll masquerade themselves to be you. They will gain unauthorized access into the system and compromise the system. That brings us to the end of attack vectors.

Now let us move forward and see how you can identify an attack. There are various ways of identifying a cyber security attack, for instance, you will notice that the speed of your system or your computer has gone down. Once you realize that your system performance is down, it's not like the way it used to BE before, that might be one of the signs of a cyber security attack.

Secondly, you will realize that your information is compromised or altered. For instance, when you have stored your records on the online learning system, let's say your students grade results and you come and realize that they have been tampered with, or they have been compromised. That's a sure sign of a cyber security attack. Sometimes when you're using your browser, you might realize that you have several add-ons or pop ups that come on your screen.

And these pop ups are normally from sites which you do not recognize. When you see numerous pop ups or adverts that's a sign of a cyber security attack. Sometimes your system might shut down or restart on its own. When you see your system shutting down or restarting on its own, it's another sign of a cybersecurity attack. And lastly, you might be denied access to the system or to the information in your system. For instance, in case of ransomware, you will be denied access to your records. That is another sign of a cyber security attack. This brings us to the end of this video. And in This video, we have looked at cyber security attack vectors and how to identify a cyber security attack. In the next video, you will see how a phishing attack is simulated.