**Interview Report**

**Interview 1**

Interviewers: Prathamesh Pandit and Divyansh Grover

We did the interview of Mr.Sahil Taneja who is doing a small business in IT called Techno IT Solution through Zoom Meet due to the current situation of Covid-19. We were talking about data security, data encryption and his thoughts on our Cryptography application.

The Interviewer (Prathamesh Pandit): What do you think about the security issues regarding important documents in this century?

S.T: I think that in todays advanced world of technology, securing data and other important documents has become a need for every individual. The data and the documents in any electronic device such as laptops, computers are at a higher risk as they can be hacked easily. This important information can be shared easily via the means of communication. There are a number of steps to prevent data theft but eventually, despite all of your best efforts, there will be a day where an attacker succeeds in breaching your network security. The problem is that some businesses have an open network structure where once an attacker is in a trusted system, they have unfettered access to all systems on the network. As a businessman, I need to keep my documents secure and safe from all my competitors as they might try to get into my system and steal my important document of my company. Therefore, I think that the security system in this advanced world is not that advanced and secure yet.

P.P: What do you think about encrypting your data?

S.T: I feel that encrypting data is one of the best and the most dependent method to secure a data or information. I personally admire encrypting data over any other methods. Any organisation can be sued if a computer containing personal information, important documents or data is stolen and the information is leaked or shared. Suppose if a laptop is lost or stolen and the files and disk aren’t encrypted, the thief can easily steal the information and can share or leak it. That’s why I think that encrypting your sensitive data or documents, if not your entire hard disk is very helpful in protecting your document from the thief.

P.P: By using our application what would you expect to be able to do?

S.T: One of the top advantages of modern encryption technology is that you can apply it to all or most of the tech devices you use. Depending on the needs of the employees, my company can offer full hard disk or file-based encryption by using your application. Once the data is encrypted, I would expect tight security of my confidential files where only trusted individuals can access the data making it more secure to use. By using your application, I would expect to be able to even send my confidential files, to be highly protected and be safely delivered to only the desired recipient without any concern of getting hacked or lost in between the delivery.

**Interview 2**

Interviewers: Tashi Lhamo and Umang Sharma

We interviewed Sonam Tshomo studying B.A in English Studies in Royal Thimphu College, Bhutan, through the means of Zoom meet only. We were talking about her opinion about the security issues of some important and personal documents and about encryption of those documents.

The interviewer (Tashi Lhamo): Have you ever experienced security issues with some of your important documents? Share your experience or your thoughts on the security issues of the important document.

Sonam Tshomo: So far, I haven’t experienced any sort of security issues with my important documents. I think in this digital world, security is one of the most important things as there is various ways where our documents get hacked and leaked if we try to transmit or store with the help of some technology. Due to the fear that our documents might get stolen, lost, or leaked, we tend to avoid storing it in our device. Even though technology has advanced a lot, I think many people still uses old method to protect and secure the important documents like keeping in a safe and all. And I think that the security to store in the form of technology should be improved a lot as it will be a lot convenient to keep it in a drive rather than in a safe.

T.L: While texting some personal information to someone through message in public, what are the challenges you encounter? How do you currently accomplish that now?

S.T: While messaging some personal or important information, it is always the greatest concern that our files or documents may get leaked. I feel the anxiety and hesitation to text the important message as all sort of thoughts comes to my mind like what if someone sees it? What if my personal information gets leaked to some social media platform? What if someone use my information to do some illegal works? And all sorts of ‘What if…’ kind of questions. It’s risky so, I refrain myself from texting personal information through message in public. Usually, I tend to send my personal information documents by physically transmitting them to the receiver by myself or through some friends or families. But due to the situation nowadays, despite the fear, we have to transmit our files even if it is personal or important such as personal details and certificates through mails or courier in case if we have an emergency to send those files. I really wish I could send it without a worry from whichever method I use some day.

T.L: You said that you refrain texting in public places due to fear that it might get leaked and all. So, what and how would you think if you encrypt you message or document and send it?

S.T: I think that encrypting data as a security method is useful for protecting our data as it will hide the important information from others and it will probably make us feel more secure about our documents or files. I think that I could text in public places too if my message is encrypted as others will probably not know what I am messaging even if they see it. They will probably think I am just texting some random letters. Therefore, I think I will feel a secure even if I text in public places if I encrypt my message and send it.

T.L: Have you ever come across or seen an encrypted message anywhere and how do you feel about that message?

S.T: So far, I have not come across any encrypted message in my real life but I have seen in movies and dramas. I have seen the use of Caesar Cipher in one of the detective dramas which I have seen where the hint is given in encrypted message and the main characters need to decrypted it in order to get the hint. In this method, the plaintext letter is replaced by a different letter which if fixed number of places down the alphabet. I think that this kind of message is very interesting and fun to solve. And I feel like it will be difficult to understand and solve this encrypted message by others as many people doesn’t know this kind of method even though it is easy to solve once you get the idea of the pattern. So, I feel like it will be fun to send or receive encrypted message and it will also be secure from other people.

**Interview 3**

Interviewers: Deepanshu Singh and Rohan Gupta

We interviewed Mr.X through Zoom Meet only and since our interviewee doesn’t want his identity to be revealed, we will respect and keep his identity confidential. We can only say that he is an army official doing his duties whole heartly for the country. We talked about the cryptography application available to everyone, laws related to encryption in India and his thoughts of using our application.

The Interviewer (Deepanshu Singh): What are your views on a Cryptographer application available to everyone?

Mr.X: Although Encryption is important as personal data is always at a high risk of being hacked and being misused but Encryption obfuscates information - most data-centric solutions, such as CloudMask, encrypt data in all its forms - making it unidentifiable and otherwise worthless for those without an associated encryption key. For law enforcement officials and government agencies, this means they cannot access information without getting the key from the data owner, and therefore, appropriate encrypted communications are off limits for organizations. In essence, businesses and consumers can use encryption to prevent government surveillance, making any attempts to uncover email messages or intellectual property fruitless.

D.S: What are your thoughts on Anti Encryption Law in India?

Mr.X: This is becoming a major cause of debate, as enforcement agencies are demanding to weaken the encryption patterns through back doors to facilitate easier access to information. But on the other hand, weakening the encryption patterns would violate the right to privacy as it is one of the tools available to individuals to protect them from Big Brother and Big Tech. As digital networks are increasingly becoming the preferred channel for commerce, encryption is critical for maintaining security and trust in this medium.

A petition filed before the Supreme Court of India said that messaging apps, including WhatsApp, Viber, Telegram, Hike and Signal were somehow helping terrorists and criminal elements by encrypting the messages. Thus, a threat to national security was surrounding these apps and hence they should be banned. The honorable Supreme Court refused to entertain the petition. It is stated that there was no urgency to put a ban on WhatsApp and other similar applications because they use strong end to end encryption technologies to safeguard the communications done on their services.

Anyways, India does not have dedicated provisions of the law on encryption. However, a number of sectoral regulations including in the banking, finance and telecommunication industries do carry stipulations such as the minimum standards of encryption that can be used in securing transactions. A draft National Policy on Encryption under Section 84A of the Information Technology Act, 2000 was published on 21st September 2015 and invited inputs from the public but it was unfortunately withdrawn on 23rd September 2015. Section 84A permits the Central Government to prescribe encryption standards and methods to secure electronic communications and at the same time to promote e-governance & e-commerce.

The crypto discussions in India have much to learn from the conflict between Silicon Valley and the United States government. Yet, there are many unique considerations that the legislature must keep in mind. India’s domestic legal system, however, suffers from a lack of privacy legislation, inadequate data protection rules, and a surveillance regime that is, for most of the times, guided by colonial legislation. How a country regulates its encryption will have implications on the rights, commerce and national security of its citizens.

D.S: Will you trust our application for securing your data?

Mr.X: Yes, I will use this type of application but only the one which is authorized by government and developed under government security norms. An application which is only available for us.

I can’t trust any application which is developed by a private organization, which is easily available on internet and accessible to everyone as that type of application are the once that contain all sorts of virus which will be great threat to our confidential documents. I can’t compromise the National Security by using any applications available on internet.

**Conclusion**

We can conclude that many people are not confident in the security system of the documents that we have currently and they hope for a better way for data security in this technology world. They all had that anxiety and hesitation to store their important documents in drive or to send it by the means of technology. They had that fear of getting their system hacked by the hackers and the fear of getting leaked. Be it the security of personal documents, or some confidential documents of the company or the security of the Nation’s confidential files, people can’t take the risk. So, they wish for a digital platform in such a way that the files or documents is understood only by the sender and the desired recipient where no third party can understand even a single word that is in the files or a document. Thus, most of the people think that data encryption is one of the best ways to protect and secure important documents and they have positive reaction about our project to make Cryptography application.