



# PRIVACY IN THE CYBER UNIVERSE

## Abstract

We live in a world where the internet is almost an essential part of our day to day. We are in the point where we cannot divorce humans from technology, or technology from humans, is part of us. In that interaction from us in the cyber space the most that have value is our data (personal information), data is the gold on this universe and we need to know how to manage and behave in this world. There are threats, vulnerabilities, bad people and they will do everything possible as long there is a motivation to steal your data. How much the internet knows about us? How much Google or Facebook knows about us? What we share in the internet and how that data is store? This are only a few question related to my personal information and how we can manage our data. We are afraid that our identity will be stolen but we keep manage our password the wrong way.

## Introduction

The term privacy is a concept that have being growing in the past decades. By nature, we protect what we value our homes, family and other material stuff. When we get out of our home, every day we make sure everything is lock, the doors and gates that give access to our property. Who in this day get out of their home and leave the front door open or the gate. No body. That same concept is one that we need to recreate in the cyber world. When was the last time you log off from Facebook or any other social platform? Probably you do not remember or you have never log off from the application. This is way people need to be educated on this concept, "The Privacy in the Cyber Universe". When we talk about cyber privacy or internet privacy, we refer to the privacy and security level of personal data published in the cyber world or internet. The privacy is something that less users cares these days in the cyber world or in other cases the user do not know the effect of sharing personal data on the internet.

## Implementation

Identify privacy issue in different companies in the past years and how the user information is being compromise and espouse. The examples I use are

1. Social Media: How Facebook manage our data and keep track of every single step we do. On March 2018 the website "The Verge.com" report that Facebook has been collecting call history and SMS data from Android devices. On this article, they report the issue that Facebook store every single SMS conversation without knowing the users know about it.
2. FarmVille: One of the most popular for the last year is the game of Farmville. This app will receive all your basic data and in most cases, you do not know because we do not read or make a search about what we are playing or in other cases buying.
3. Cookies: The information that cookies store (more if it is a shopping website) can be sold to others that want to sell similar products to you. That is why junk mail gets to you because your information has being sold to others.
4. Hello Barbie: In 2015, Mattel release the new interactive Barbie the Hello Barbie. This doll have an artificial intelligence that was able to response to the child, the doll connect to WIFI and have an interactive application were you can access all the recording.
5. Dolphin Attack: The Dolphin Attack is a method that let you send voice command that are incomprehensible to people and can control the system, using for example a frequency of 20 kHz to make it inaudibility for humans but not for AI devices.
6. Sniff Cookies application: The application Droid Sheep is a hack tool for Android devices that hijacks social networking accounts on compromised devices.



## Results

In each one of these scenarios we can see how our information have being compromise. We can see that this can affect not only adults it can affect children's too. Less users keep track or educated about the stuff they buy or download. More users use a mobile device for almost everything; credit card store, bank account with save password, social media application open and more. Some terms and condition are so explicit but because we don't educate we keep accepting al need it to access to what we want.

## Conclusion

With all this information, we need to know that the privacy is really a big concern this day. The technology is growing in a fast way and we need to keep educating the user about this. We have to be more aware in what we share on the web and what we download. I hope that this project will keep us learning more a more in this Cyber Universe.

## References

[1] Tom Warren (2018, March 25). Facebook has been collecting call history and SMS data from Android devices. <https://www.theverge.com/2018/3/25/17160944/facebook-call-history-sms-data-collection-android>

[2] Michele Willson (2015, June 10). Zynga's Farmville, social games, and the ethics of big data mining. <https://www.tandfonline.com/doi/pdf/10.1080/22041451.2015.1048039>

[3] Steve Smith (2010, June 1). How to stop cookies stealing your personal information. <https://www.computerweekly.com/opinion/How-to-stop-cookies-stealing-your-personal-information>

[4] Brain Marshall (2000, April 26). How Internet Cookies Work <https://computer.howstuffworks.com/cookie1.htm>

[5] Jon Penland (2019, January 18). Browser Cookies: What Are They & Why Should You Care?. <https://www.whoishostingthis.com/resources/cookies-guide/>

## Contact

Edshel Torres Rosa  
M. Eng. Cp. E  
PUPR Advisor Dr. Nelliud Torres  
Polytechnic University of Puerto Rico

