Internet Privacy

Akhil Gunuganti

1SNIST CSE Department Sree Nedhi Institute of Technology and Science India

Abstract: The Internet we know is no longer safe. The state of being anonymity is lost and data is compromised in every database. Our positions are monitored and the data is being collected which gives us more valuable information than we know. So the privacy which is promise is taken away, I am here to expose some facts about how our privacy is taken away by the internet.

I. INTRODUCTION

The Definition of privacy is that being free from public attention, which makes us anonymous, which encloses our identity and shows us that we are not alike from one another. When it comes to a matter of that of fact whether it is important or not it is incorrigibly Yes, it is important and its our right. Privacy is important to every person some can argue that only people with bad intentions want to be anonymous or care about the privacy but that is incorrect people change their behavior or attitude when they are being monitored they cannot be themselves. In Today world, we are so superout that our technology doomed our lifestyle which made to be connected at wide area. But the main problem arises where this data id going? IS it getting deleted or stored? Does this even matter yes, This Matters yes, This matters a lot to humanity.

The promise of smart cities with a platform independent interface like Apple Google Alexa, Bixby a city wise operating system merging big data with surveillance, security and transit programs Coordinated from the heart of ultrapowered companies like Google, more emerging software has been implemented across the United States, ushering in the “Internet of Things”. Billion connected devices now serve as collection points, mapping and recording our daily routines, making a more secure… and more invasive system. But who else is listening? Big brother no longer works alone. Thousands of little brothers monitor and aggregate your every move, building a complete digital profile of YOU, to be bought, sold or stolen in an instant. Toys study your children, reporting their play habit back to marketers. Appliances, consoles and home security systems give corporations a window into your private life control of your vehicle and mobile device can now be breached remotely by anyone, at any time. You may think that you are immune or underestimate the risks, but your digital shadow is already compromised. Insurance companies use algorithms o monitor your life habits and limit or deny coverage. Health providers determine if your cancer is worth treating. Search results and news feeds are skewed to bias mood and influence your vote, engineering social uprisings on a massive scale. Profiling, media manipulation, corporate collusion, consumerism all these are the threats that arises through smart city development Your are now less valuable than the data you produce. This is the new reality.

Going dark is no longer an option.

II. INTERNET REVOLUTIONS

With threats to personal freedom rising, many are stepping forward. Whistle-blowers, Activists and Hackers have drawn their battle lines, putting the establishment on watch. But are they threats themselves… or have they become freedom’s last line of defence? With a few hundred lines of code, hackers would bee able to hijack its central servers and cripple the entire grid. We may believe the attack would be a killing for smart city development. But what if they were wrong?

III. PLATFORMS WHERE PRIVACY THREATS OCCUR

When technology outruns humans knowledge then everything and every step would be chaos:

Today every person have a mobile phone and most of them have a smart phone. And every smartphone manufacturer is prioritising many features like GPS location and enabling features like permitting apps to access camera, contacts, messages, speakers, audio every hardware and every sensor can be accessed by the apps. But at what cost, these app are collecting our data and storing in their databases. If that doesn’t worry you there for your information they can even access these all things without our notice, that means we ourselves giving companies to access our personal data so that they can exploit it.
High company developer apps like Google Facebook are recording and mapping every personal information about us. For example, let’s take some apps that are developed by google like Google search, Gmail, Google maps, Google assistant, Google photos and at last google messaging apps. Google search records our search that means it is recording our needs or even it can conclude what we don’t have or what we have required or what we want to know or what we like most. With all these information and with suitable algorithms and big data analytics they incept with the most appropriate ads. Google maps access our location and simultaneously our Gmail receives messages from restaurants, rooms that are available from that location. Yes sometimes the service is helpful but at what cost. And Google assistant with combination of Photos app they have all information about what is being present in our mobile phone. Considering all the situations from every app we are just being exploited at a huge cost. People just don’t care about their privacy because its exploitation is not visible but after few years everything we want or we do is already decided. We lose our freedom of choice AI shuffles music by our past interests, our news feed is filled with ads or things what we search most, every schedule every work will be categorised by this ultrapowered companies. Soon we will wake up to their schedules see what they show us ultimately becoming puppets. We will be pre-rejected before even applying for an interview and we will be accused before even committing a crime. Everything would be done before we even think. Ultimately deceasing our civilization and evolution where man is controlled by its own creation.

IV. HOAX

This are two kinds of people, good people and bad people. We distinguish bad people from good people by the things they are searching which can be a human threat. But there would be no good if you are searching at wrong place for wrong people. The former CEO of Google, Eric Schmidt, who, when asked about all the different ways his company is causing invasions of privacy for hundreds of millions of people around the world, said that If they were doing something that they don't want other people to know, maybe they shouldn't be doing that in the first place. "People who thinks like that the privacy is not important factor rhetorical they believe most of the time. They put passwords on their email, Face ID’s, Touch ID’s and all sorts of encryption to their personal life all steps designed to prevent other people entering into their privacy. And even other CEO’s of companies who invades privacy states that privacy is no longer a social norm. We never share our passwords even though we know that we are not doing anything illegal. And there's a reason for that, even those of us who in words disclaim the importance of our own privacy, instinctively understand the profound importance of it. We people share information with others in order and simultaneously receive information from other, that how we made progress. But equally essential to what it means to be a free and fulfilled human being is to have a place that we can go and be free of the judgmental eyes of other people. There's a reason why we seek that out, not just terrorists and criminals, all of us have things to hide. We have things and reasons that we share to certain people and not taking to the public. We make judgments every single day about what we think and do and what we want to become on other person’s perspective. People can easily say that they don’t care about their privacy, but their actions tells a different story. Now, there's a reason why privacy is so important. The reason is that when we feel that someone by somehow spying on us through technologies etc our behaviour eventually change, we adapt to a lie that we want to show to the other people which lacks the soul in what we are doing. This is a fact adapted in every virtual field. Privacy is a important state when they're in a state of being watched, make decisions not that are the by-product of their own agenda but that are about the expectations that others have on them or what others want. An example can taken from the mid-century set out to resolve an important problem ushered in by the industrial age, where, for the first time, institutions had become so large and centralized that they were no longer able to monitor and therefore control each one of their individual members, and the solution that they devised was an architectural design originally intended to be implemented in prisons that called panopticon, where a tower is situated at the middle of the prison and check out every prisoner where the prisoners have no idea that they are being watched. You had to live in a place assuming you are being watched and scrutinized. "The conclusion that they all reach ,is that a society in which people can be monitored at all times is a society that wants to take in charge of their people. When we allow constant monitoring, we are just letting our freedom on other hands. We must take off the mindset that people who seek privacy have wrong intentions and the idea that If you're willing to render yourself sufficiently harmless, sufficiently unthreatening to those who wield political power, then and only then can you be free of the dangers of surveillance.

V. ARTIFICIAL INTELLIGENCE

AI made everything easy in every possible way. There are enormous examples where we daily use AI knowing its presence or unknown. If we dig deep our daily search on google is done by AI. The news feed refresh from every social networking app to any other service providing use he help of AI for polished well refined results. Taking a real life example like when we book a ticket on booking apps the send a confirmation mail which consists of the traveling pass or ticket to our G-mail. And the apps which use our
By clicking on every link provided by these companies we are exposing ourselves. Artificial Intelligence is playing an important role in providing our information to these companies so that they can make money from this information. These are numerous ways in sending your data like the new technology embedded in your smart phones though these companies claim that they don’t use this data but still giving access to your location and health data through smart watches, phone numbers allowing access to contacts, camera, microphone our likes and dislikes considering music library to following social entities like people, pages having agendas everything leads to give an X Ray digital image. These algorithms are written in such a manner that you prioritize and schedule your time to these services which doesn’t have stopping queues refreshing news feed wasting time and giving personal information to them. You may even wonder that now a days every social networking sites like Facebook Instagram which makes money through add show relevant adds that is if your likes are pretty much on books you will be shown book adds , or the item you’ve wish list in e-commerce site like Amazon etc seems to be appearing in this social networking sites etc. These bigdata Analytics can even state the situation of an adult through his post on Facebook or twitter whether they are depressed happy, devastated or in a relationship etc. We may think that we are just providing small amount of information, but we are forgetting that we are leaving trails or dots. All these dots are connected to form our digital shadow, sometimes this information could be too much of ourselves that we even know about us. Machines think in different way when compared to humans’t where the problem rises, intelligence should be used for human progress not for human surveillance. In the worst case scenario your private information will be weaponized to use against you. In recent days we have seen Facebook developed AI for their purpose but soon they were shutdown because they started to communicate in new language created by themselves that even humans can’t figure it out. Social Media serves as collection points, mapping and recording our daily routines, making a more secure and more invasive system. The information we get from social media can be used for building a complete digital profile of a person. Search results and news feeds are skewed to bias mood and influence their vote, engineering social uprisings on a massive scale.. The curiosity of knowing about others is the main idea that social networks run. We post , share, like , react , tweet , comment, upvote , dislike , downvote or just show how we feel about the world in public. Today social media become the best platform to start a movement, advertise and bringing people together even from various continents all discussing on the same ideas and problems. Your favourite social media sites knows everything about you, and they can be manipulating your feed to tailor your opinion to their interests.

VI. SENTIMENT ANALYSIS

At first they go through the social life of a person. They develop algorithms which takes input of a person’s posts , shares , likes , reacts , tweets , comments, upvotes , dislikes , downvote and segregate this information under a particular emotions. They refine every information and collect data from his various interests that ultimately define his current mood. They group these individual’s sentiments into distinguishable categories so that government can take necessary and appropriate steps to unite people’s voice and for the nation’s progress. Analysing human sentiments is to unlock the maze of human consciousness. Every entity and attribute in the social platform are the ways to decipher and reach to his sentiment, just like a circular maze starts from the circumference and ends at its centre. The attributes in social media like his posts , videos , photos , like , comments , tweets , pins , pages he follows, all help in mapping his personality and solving the maze ultimately revealing his/her sentiments. Using this we can encourage his/her interest, guide him/her in right way to serve our nation. They can use this information to predict person’s mentality, how he/she thinks and his/her present state of mind. ( Government can use this Analysis to refine their feed according to the current affairs and unite the people on a particular issue).

VII. SMART SHOPPING

The 21st century is set remove all the boring jobs where an individual skill is not much used. Recently Amazon Go market has launched in parts of US where there is no cash counter person you just have to scan the Amazon QR code enter in the mall , get what you need and come outside the mall. This happens Automagically. That is in the mall your are monitored real-time by 1400 cameras learning what item you chose and kept in your backup or just held it there. Just like pros there are also cons they know what people like the most or attracts them and even repels them. The even calculate the time you’re spending on a product and use this data on marketing.
A. social Networks
The curiosity of knowing about others is the main idea that social networks run. We post, share, like, react, tweet, comment, upvote, dislike, downvote or just show how we feel about the world in public. Today social media become the best platform to start a movement, advertise and bringing people together even from various continents all discussing on the same ideas and problems. But problem arises when all these things can be manipulated by the social media our freedom can only be protected if democracy thrives. There may be a chance that corporate interests are rigging the elections by using social media. Your favourite social media sites knows everything about you, and they’re manipulating your feed to tailor your opinion to their interests. They are fooling you into voting for their puppet. These sites can become the most powerful population control tool ever created. They can make you see what they want and get control over public.

B. Other Loop Holes
The main problem arises when every service providing technology starts to collect and organise data. Here I want to list out the collection points of data that are maliciously sending personal data to big companies or at least to the people who you never know. Allowing camera access on our mobile phone, laptops, IOT camera devices all this device can be hacked and converted into a data collection point. Allowing access to camera to different sites, apps and other service providing companies have a chance to spy on you if you are less cautious. With few lines of code they can eventually trigger cameras when you let them in stand by mode. This lets you expose and for the worst case scenario you would be eventually end up in more bigger problems that they can enter into your private life, take improper photos that can eventually disturb you mentally. Most of these victims are young age and especially girls are targeted mostly for these types of problems.

Allowing location access many devices access our location for better content management and functionality. They background refresh their content so that it can be appropriate and relevant to the user like to exact mention the climate conditions, news feed at a particular area, place, country etc displaying trending social events, ongoing games, political regional social natural and phenomenal events going on at a particular location. So what’s the catch? The catch is we are letting them or giving permissions to these high powered companies to track us down every time. It’s very easy to track a person phone these days and kids who are playing games like Pokemon go or these apps can have real time location of yours. We don’t have proofs that they are particularly tracking people but I just want to show how transparent we are. Almost every app today ask at first time of launch to access locations and there are wide range of apps from dating sites to tinder, food panda, social networking sites Facebook, Instagram, snapchat, Amazon, uber Google and Apple maps and many more monitoring over daily locations.

Allowing access to microphones we just can’t let app allow over microphones situated in our phone, IOT devices, Virtual Assistants like Amazon Echo, Google Home and even Apple’s Homepod, doing this we just let other to listen what we are saying and what we are upto.

IOT devices permissions. Today IOT devices are playing or will play an important role in our daily life. We have to figure out what happens to our data while these devices are adapting to our life.

Web Browsers these use cache for better surfing on internet. Cache memory relatively store our previously visited data sites. Some malicious sites can or any bug, virus infected file may have a chance to access the data. Cache memory and cookies include over personal information protected passwords, bank accounts etc which are very valuable to a person. Our social media posts and status. Today we post almost every activity on social sites like Facebook, snapchat, Instagram etc. Some people even posts how they feel or what they feel about a situation that whether they are depressed or happy. They posts photos of their loved ones, friends, family etc. They even checkout their location. We get what we give, we are making ourselves transparent to a extent that even an ordinary person can evaluate our state of mind or position. By letting to show how we feel to the people who doesn’t deserve to be shown we are self-destructing our privacy. They know what we like, who our friends are and even what agendas do we live in the society. Big companies have already started to develop algorithms with AI and machine learning that evaluate our present state of mind and even started to make money from that by showing advertisements that are appropriate to our current thinking state. Our next purchase.

Increasing prices to the items that we would like to buy and baiting people with lower discounts like black Friday sales, discounts etc fooling and manipulating people to buy items that they never tend to buy. All these things are the resultant data produced by big data analysis and algorithms developed to make people but the item in e-commerce markets.

In future even our medical data can be sold to insurance companies whether to give the insurance or to reducing and regulate the money claimed. Cloud Storage today many devices store our data in cloud. Our memories, photos, videos and even more data like calendar important dates alarm time, last usage of a particular device which gives us the information when a person sleeps and wake up. Contacts and messages are also stored in cloud devices almost everything we allow can be stored in this cloud devices, its just
similar to giving key of our private life to these service providing companies. These companies expect us to believe that they don’t share the information but they may be a possibility that they could constantly refine our information and know about us more than we do with Image-detecting algorithms which already been developed by many ultrapowered companies like Google, Apple sorting every information about us making less valuable than the data we produce. TouchID’s and FaceID’s today became a gold standard for our protection of our details. Almost every device has touchId and is enabled to unlock their mobile phone, laptops and even IOT devices. Its good to know that companies claim that they don’t store this data in servers, but there is a possibility that this data can be even bought, sold or stolen if we are careless. Yes there are companies who are very much loyal to their customers but taking consider into the companies who don’t show integrity towards their customers can cause a major threat to a person’s living position. Almost every time we use touchId or faceld like unlocking the device(mobile, laptop etc), during payments, securing photos, apps, documents, data like everything we wish we can protect it. So features playing a vital role in our daily life should not be saved on servers of ultra powered companies. There are countries like USA undergoing taking off net neutrality rules over internet where internet service provider has more control and can regulate the data we are using and can even have access and display the content they wish to show us. This gives more power to the corporate companies that they can regulate the content we are subscribing to enjoy the various facilities of Internet like streaming movies, YouTube, Netflix etc. So we will be paying more money for greater content and higher risk for exploitation of privacy. Every where and any where a device could possibly can send information both accurate and precise state of a person. And in future companies can get information about your kids from various advance devices and toys so that they could know what your kid likes the most and can make the money. Even a person’s mood can be figured out by the playlist music he is currently listening to or currently he is going through. Pun is they are using the best intelligence to do this things. ML Algorithms are rapidly increasing their efficiency and knowledge to know a person mood and provide content appropriate to it. Almost every app use this so that the user could stay long on their apps spend hours of time where there are no stopping queues. So imagine a Dark world or just all this data combined at one place. As we compare Information is Power, this could be the power of God controlling us, watching us, hearing us every milli second. We are less valuable than the data we produce. Higher power doesn’t come from weapons, Its from the information and our own minds. It is well enough that people of the nation do not understand this system, for if they did, I believe there would be a revolution before tomorrow morning. So the scale of privacy is massive and it is exploitation of our privacy is exponentially increasing

VIII. THREATS

A. And yes our data can be bought, sold or stolen in an instant.

1) Toys study your children, reporting their play habits to marketers.
2) Appliances, consoles and home security give corporations a window into your private life.
3) Control of your vehicle and mobile device can now be breached remotely by anyone at anytime.
4) You may think that you are immune or underestimate the risks, but you digital shadow is already compromised.
5) Insurance companies use algorithms to monitor your life habits and limit or deny coverage.
6) Health providers determine if your cancer is worth treating.
7) Search results and news feeds are skewed to bias mood and influence your vote, engineering social uprisings on a massive scale.
   This is the new reality where going dark is no longer an option.
8) The NSA.
9) Rampant commercialization.
10) Criminals and sickos.

IX. POSSIBLE PREVENTIONS

So what we should do now? After all this things, it might find a little scary about the devices and Internet. But we can solve this problem if we always keep in mind that, there may be any advancement in technology but it can’t outrun human thinking. Here are some ways in which we can maintain our privacy

Starting from mobiles, Always check the App permissions. Enable permissions to those apps which are necessary.
You don’t always have to give location access to you social apps like Facebook, Snapchat, Whatsapp etc. There are some app which constantly check for location even though they are not home active.
Always know what the app does, and what important benefits you can get from the app. There use to be a feature in iPhone true caller app where it can give information like whether your mobile is in silent or general model (but now it is rolled out).
We have to be careful with Apps accessing our mobile contacts. There are certain apps that send information their cloud. Always download apps from trusted app developers. 3rd party apps are highly volatile in risking the data. Use messaging apps which have built in end to end encryption service enabled in it, so that only the sender and receiver have the knowledge about the message and can save us carrier companies eavesdropping over our messages. We have to know that anything that may be a image or a video , that could be any format file, every file can be compromised and can be used against you.

And if in case any of your personal images and videos are leaked on internet (that usually happens to teenagers) there are certain ways that helps to remove from those sites. But it becomes cumbersome and we should always be careful at the first place. Using virtual private networks or so called VPN have both its own disadvantages and advantages. Advantage is that we are safe from our ISP’s but the catch is our VPN provider can filter the data that we are accessing. So it is best to use safe VPN. Using TOR or deep web is the best alternative when it comes to maintain privacy. The data provided by deep web is more reliable than the biased internet.

While surfing through internet it is best that we cover the webcam with stickers etc so that even though the system gets affected with malicious virus the webcam could possible be inactive while it is covered. We have to keep an eye on the sites that are accessing the information like microphones, location, JavaScript, Flash players etc. It’s best to use firewall or Antivirus for the best protection of personal data and App locks from trusted developers so that you can protect data from others.

There are some trusted companies who are loyal to there customers. When it come to privacy iPhones are better at encrypting data than Android. Make sure you always patch security updates to your device. Buy IOT devices that share data through end to end encryption. Update the device software regular for better performance and protection. Using different password with various special cases and alphabets for every account is the best way for privacy which helps us not lead to other account when one account is hacked.

Using TOR or deep web is the best alternative when it comes to maintain privacy. The data provided by deep web is more reliable than the biased internet. images of child sexual abuse and then tip off the police. So, believe me the internet is a very dangerous place. But we can move to the deep web, we can all be anonymous when we choose to be. If they don’t know who we are or where we are they can’t spy on us, they can’t bombard with ads and they can’t stalk us do us harm.

The Best solution for this to be is that to we all move to deep web. The Tor-Firefox browser it allows you to travel the regular internet incognito and to visit the dark sites too. All we need to do is to download Tor-Firefox browser and connect to a tor network where you can be seriously anonymous too.

We all are mad as hell and we are not going to take this anymore. We should all be doing this, and start saying I am as mad as hell of all the spying and the commercial take over and over the criminal and sickos. We are looking at the end of the internet as we know it because the internet is taken over by all the wrong people. But we can do something about it we can all go deep web, its not a place it’s a state of mind away of being simply by masking over activities we can prevent monitoring us following us and doing us harm. I say it’s time we come to threats towards the internet, its time we stood up and do something about the internet, it’s time we stood up and take back the internet and say I am as mad as hell and I am not going to take this anymore.

REFERENCES
[2] ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6.887