

## Extra Credit Course

### Unit III - Social media and Smartphone Security

Introduction to Social networks. Types of Social media, Challenges, opportunities and pitfalls in online social network, Security issues related to social media, Introduction to mobile phones, Smartphone Security

## Introduction to Social Networks

Social Networking is connecting to friends and family through the usage of the Internet. Social networking websites are not necessarily about meeting new people online, although this does happen. Instead, they are primarily about connecting with friends, family and acquaintances you already have in real life. The most well-known social networking sites are Facebook, Twitter, MySpace and Bebo. These sites allow you to share photos, videos and information, organize events, chat, download music and even play games like Scrabble and Chess online.



### Available Social networking Services

The following table describes some of the famous social networking services provided over web and mobile:

S.N.	Service Description
1.	<b>Facebook</b> Allows to share text, photos, video etc. It also offers interesting online games.
2.	<b>Google+</b> It is pronounced as Google Plus. It is owned and operated by Google.
3.	<b>Twitter</b> Twitter allows the user to send and reply messages in form of tweets. These tweets are the small messages, generally include 140+ characters.
4.	<b>Face party</b> Face party is a UK based social networking site. It allows the users to create profiles and interact with each other using forums messages.
5.	<b>LinkedIn</b> LinkedIn is a business and professional networking site.
6.	<b>Flickr</b> Flickr offers image hosting and video hosting.
7.	<b>Ibibo</b> Ibibo is a talent based social networking site. It allows the users to promote one's self and also discover new talent.
8.	<b>Whatsapp</b> It is a mobile based messaging app. It allows to send text, video, and audio messages
9.	<b>Line</b> It is same as whatsapp. Allows to make free calls and messages.
10.	<b>Hike</b> It is also mobile based messenger allows to send messages and exciting emoticons.

## Where Social Networking Helps

Following are the areas where social networking has become most popular:

### Online Marketing

Website like Facebook allows us to create a page for specific product, community or firm and promoting over the web.

### Online Jobs

Website like linked in allows us to create connection with professionals and helps to find the suitable job based on one's specific skills set.

### Online News

On social networking sites, people also post daily news which helps us to keep us updated.

### Chatting

Social networking allows us to keep in contact with friends and family. We can communicate with them via messages.

### Share Picture, Audio and video

One can share picture, audio and video using social networking sites.

## Types of Social Media

### 1. Social Networks: Facebook, Twitter, LinkedIn

Such types of Social Media are used to associate with individuals (and brands) on the web. They help your business via branding, social awareness, relationship building, customer service, lead generation, and conversion.

You can channelize different types of Social Media campaigns on these networks that will help you widen your reach. Some of the benefits of these Social Marketing Networks are :

- (i) They encourage individuals and businesses to interact online and share data and thoughts for ensuring mutually productive relationships.
- (ii) In case you are searching for the best ways to optimize current marketing campaigns then you will discover a variety of organic and paid ways to do this on Facebook, Twitter, and LinkedIn sorts of social networks.

## 2. Media Sharing Networks: Instagram, Snapchat, YouTube

Media sharing types of Social Media are used to find and share photographs, live video, video and other kinds of media on the web.

They are also going to help you in brand building, lead generation, targeting and so on. They give individuals and brands a place to discover and share media so the target audiences can be targeted and converted into a convincing and result-driven way possible.

Social networks nowadays also offer these features, however, for Media Sharing Networks, sharing of media is their basic role.

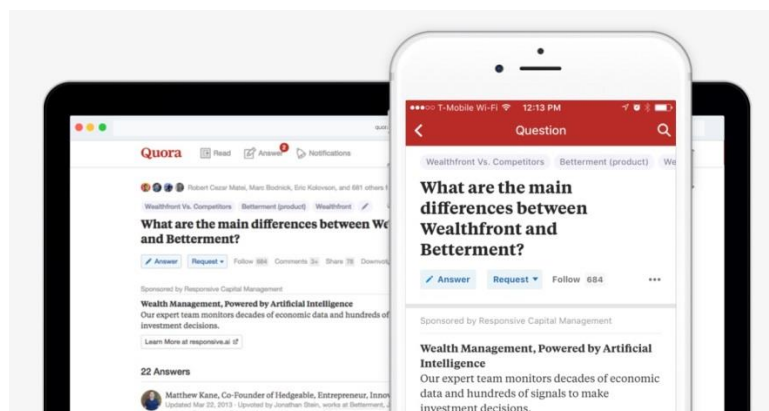
(i) Starting with image or video on Instagram, YouTube and Snapchat types of media sharing networks would be more beneficial for you.

(ii) To decide whether you should use these networks for your business or not, you should consider your resources and target audiences. These channels will help you run well-planned campaigns to generate leads and widen your audience base.

## 3. Discussion Forums: Reddit, Quora, Digg

Such types of Social Media channels are used for finding, sharing and discussing different kinds of information, opinions, and news.

They help businesses by being a top-notch resource for doing immaculate market research. These forums are the oldest ways of running Social Media Marketing campaigns.



Before the entry of popular Social Media players like Facebook, these forums were the places where professionals, experts and enthusiasts used to do different kinds of discussions concerning a variety of fields.

- (i) These discussion forums have a massive number of users and it ensures unprecedented reach for your business. These are the places that provide the answers to different queries of any domain.
- (ii) In case your business needs deep customer research then these places would be the most befitting one for your business.
- (iii) Along with sharing information and knowing answers, these places are very impactful in advertising as well.

#### **4. Bookmarking & Content Curation Networks: Pinterest, Flipboard**

Opting for such types of Social Media will help you find out, share, discuss and save a variety of latest content and media that are trending as well.

They are very helpful in channelizing brand awareness for your business, plus, choosing this one to run different types of Social Media Marketing campaigns will help you generate website traffic and customer engagement.

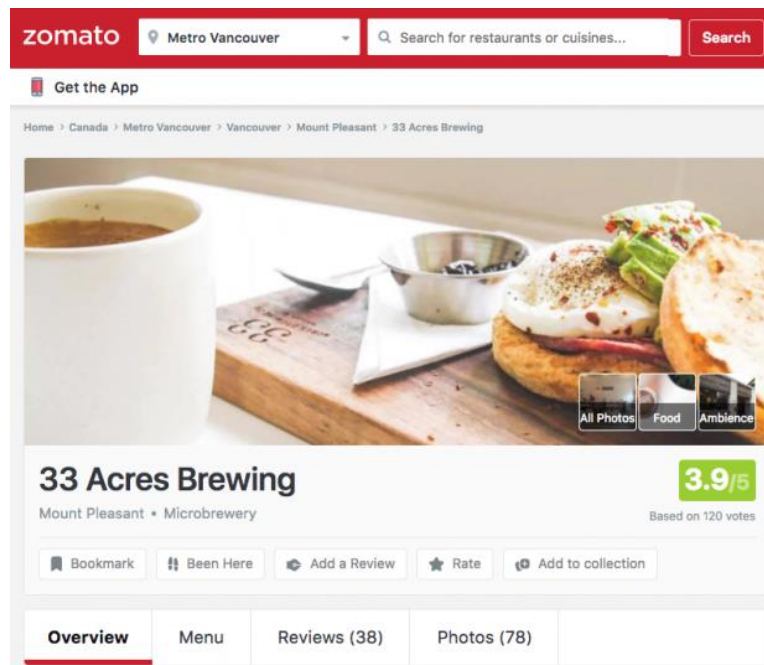
In case you want to run some out of the box highly creative campaigns that can not only inform your audience and but also attract them then this one is the best fit.

- (i) To run a Social Media campaign on Pinterest, you need to have a site that is bookmark-friendly. You should optimize headlines and images for the feeds that Bookmarking and Content Curation Networks use for accessing and sharing your content.
- (ii) Flipboard lets you create your own Flipboard magazine by using most engaging content and then you can showcase that to your audiences.

## 5. Consumer Review Networks: Yelp, Zomato, TripAdvisor

Using Customer Review networks will help you find out, share and review different information about a variety of products, services or brands.

When a business has positive reviews on these networks, their claims turn more credible because reviews on these networks act as Social Proof.



For running a successful Social Media Marketing Campaigns, it is very important for today's businesses to have positive reviews on these sites.

In addition, resolving all the issues that your customers are posting on these Review platforms is another thing that is going to be very important for the positive and productive outcomes for your business.

- (i) These networks offer a place to users for reviewing different kinds of products and services that they have used.
- (ii) Review content adds great value to any brand because it will influence more and the number of new buyers to attempt your services.
- (iii) Yelp and Zomato are the types of social media platforms that offer location-based review services that will help you run location-based social campaigns.

## **6. Blogging & Publishing Networks: WordPress, Tumblr, Medium**

You should choose these types of Social Media networks for publishing, discovering and commenting on articles, social media blogs and other content on the web.

Content marketing is one of the most powerful ways to target, attract, engage and convert a target audience. It is going to be the base of successful online marketing campaigns that play the most important role in conversion funnels of Digital Marketing campaigns.

Word Press and Blogger are the traditional blogging platforms while Tumblr (micro-blogging service) and Medium (Social Publishing Platform) is the latest blogging and publishing networks.

- (i) These networks are must for the businesses that want to effectively use Content Marketing, plus, you can share this content on a variety of Social Networks like Facebook, Twitter, LinkedIn, etc.
- (ii) Content that you use on these networks will also help you create a niche for your business and audiences who are in search of information concerning that niche will for sure visit your blog or site.

## **7. Social Shopping Networks: Polyvore, Etsy, Fancy**

Want to find out all the latest trends in the marketing or crave to know the shopping tips then such types of Social Media channels are for you.

In addition, they help you follow different brands, share interesting things and make a purchase on these Social Shopping networks.

Businesses can use such types of Social Media Platforms for creating brand awareness, boosting engagement and selling products on some new and effective platforms. These channels transform e-commerce by making them more engaging via some interesting social elements.

- (i) To use these networks effectively you should create a site that integrates shopping experience with social experience.



(ii) These networks are very result-driven for small businesses and startups as they can sell their products without any land-based office or store.

## 8. Interest-Based Networks: Goodreads, Houzz, Last.fm

You can use such types of Social Media networks for connecting with other people who have the same sorts of hobbies or interests.

You can easily find the audiences who are interested in knowing more and more about the kinds of products and services that you offer.

This makes it one of the best networks for engaging with your audience and creating exclusive brand awareness online. Compared to big social networks, using Interest-based networks would help you run a more targeted campaign.

(i) Choosing these networks will help you focus solely on a single product or service related to any particular subject, for instance, home décor, Digital Marketing Training, Music, Books, etc.

(ii) These networks are the best places to engage with the audiences of a particular niche.

## Key Challenges Posed by Social Media:

Despite the fact that social media play the vital roles such as communication, collaboration, education etc, it poses few major challenges too. The following are the most prominent challenges posed by the social media.

- **Privacy:** The primary challenge posed by the social media is the privacy. Many people restrain themselves from taking part in a dialogue with a fear of losing their privacy.

- **Access for those with disabilities:** Section 508 of the Rehabilitation Act of the US provides guidelines for making federal websites accessible to people with disabilities, including the visually and hearing impaired.

- **Commercial advertising on social media:** Advertising on social media should follow the formalities of censor; and porn content in advertisements should be avoided on the websites, intended for the very purpose of social networking. If such restrictions are not imposed, strictly, it may ruin the minds of youth, thereby indirectly increasing the crime rate. This is one of the vital challenges posed by the social media in the contemporary web world.



- **Terms of agreements:** Most of the social media sites allow the audience to create an account, after accepting terms of agreement, which are often vague. The terms of agreement can be interpreted in multiple ways. They pose a threat, indirectly. Most of the social networking websites get an agreement accepted by the users that their information can be used by the owners of the social media. It indirectly causes invasion of privacy. Such a challenge is one of the crucial confront posed by the social media.
- **Security Concerns:** Social media sites pose an equal threat to the security of personal information and other concerned data. Hacking of the websites is the most common feature; with hacking there is an imminent threat to the audience of social media. This turns to be another key challenge posed by the social media.
- **Deception:** The identity of the individual who joins the social networking sites may either original or fake. The veracity of his/her identity is not known to the fellow user. In the recent past, many cases of deception around the world have been registered. Social media turns to be an easy way of deceiving people using the technology.

## **Pros: Why is social media good?**

Social media and technology offer us greater convenience and connectivity:

- staying connected with family and friends worldwide via email, text, FaceTime, etc.
- quick access to information and research
- banking and bill pay at our fingertips
- online learning, job skills, content discovery (YouTube)
- involvement in civic engagement (fundraising, social awareness, provides a voice)
- great marketing tools
- opportunities for remote employment

Social media can be a good thing, but if teens ever feel uncomfortable about something they see or read on social, they should trust their own feelings and talk to someone – a parent, a teacher, or another trusted adult. Bullying, threats and cruelty on social media are all signs that the person doing those things needs help.

## **Cons: Why is social media bad?**

Along with the good comes the bad. With all of its benefits, the nature of social media presents a range of potential issues.

- **Online vs Reality.** Social media itself is not the problem. It is the way people use it in place of actual communication and in-person socializing.

“Friends” on social media may not actually be friends, and may even be strangers.

- **Increased usage.** The more time spent on social media can lead to cyberbullying, social anxiety, depression, and exposure to content that is not age appropriate.
- **Social Media is addicting.** When you’re playing a game or accomplishing a task, you seek to do it as well as you can. Once you succeed, your brain will give you a dose of dopamine and other happiness hormones, making you happy. The same mechanism functions when you post a picture to Instagram or Facebook. Once you see all the notifications for likes and positive comments popping up on your screen, you’ll subconsciously register it as a reward. But that’s not all, social media is full of mood-modifying experiences.
- **Fear of Missing Out.** FOMO has become a common theme, and often leads to continual checking of social media sites. The idea that you might miss out on something if you’re not online can affect your mental health.
- **Self-image issues.** Social media sites provide tools that allow people to earn others’ approval for their appearance and the possibility to compare themselves to others. It can be associated with body image concerns. The “selfieholics” and people who spend most of their time posting and scrolling are the ones most vulnerable to this. In fact, most college girls who use Facebook at least five times a day are likely to link their self-worth to their looks. That doesn’t mean that the main problem is social media; it only provides a medium for it, which further elevates the problem. It also promotes the same sort of behavior to others.

## Introduction to Mobile Phones

A **mobile phone**, **cellular phone**, **cell phone**, **cellphone**, **handphone**, **hand phone** or **pocket phone**, sometimes shortened to simply **mobile**, **cell**, or just **phone**, is a portable telephone that can make and receive calls over a radio frequency link while the user is moving within a telephone service area. The radio frequency link establishes a connection to the switching systems of a mobile phone operator, which provides access to the public switched telephone network (PSTN). Modern mobile telephone services use a cellular network architecture and, therefore, mobile telephones are called *cellular telephones* or *cell phones* in North America. In addition to telephony, digital mobile phones (2G) support a variety of other services, such as text messaging, MMS, email, Internet access, short-range wireless communications (infrared, Bluetooth), business applications, video

games and digital photography. Mobile phones offering only those capabilities are known as feature phones; mobile phones which offer greatly advanced computing capabilities are referred to as smartphones.



## Smartphone Security

Some of the main phone security threats include:

### **Malicious apps and websites**

Mobile malware (i.e., malicious applications) and malicious websites can achieve the same aims – such as stealing data and encrypting data – on mobile phones as on traditional computers. Malicious apps come in different forms – the most common are trojans that perform ad and click scams.

### **Mobile ransomware**

Mobile ransomware is malware used to lock users out of their mobile device and demand a ransom payment, usually in cryptocurrency. The increased use of mobile devices for business has made ransomware a more common and damaging malware variant.

### **Phishing**

On desktop or laptop computers, most phishing attacks start with an email that includes a malicious link or an attachment containing malware. However, on mobile devices, emails account for only 15% of phishing attacks. Most mobile phishing attempts occur via SMS messaging, social media, or other applications.

## **Man-in-the-Middle (MitM) attacks**

Man-in-the-Middle (MitM) attacks involve an attacker intercepting network communications so they can eavesdrop on or modify the data being transmitted. While this type of attack is possible on different systems, mobile devices are especially susceptible. Unlike web traffic that typically uses encrypted HTTPS for communication, SMS messages can be easily intercepted, and mobile applications may use unencrypted HTTP when potentially sensitive data is being transferred.

## **Jailbreaking and rooting**

Jailbreaking and rooting refer to gaining administrator access to iOS and Android mobile devices. Mobile users may jailbreak or root their devices to delete unwanted default apps or install apps from untrusted app stores – but doing this carries risk. Increased permissions can enable attackers to access data and therefore cause damage.

## **Spyware**

Spyware can collect or use private data without your knowledge or approval. Data commonly targeted by spyware includes phone call history, text messages, user location, browser history, contact list, email, and private photos. Cybercriminals could use this stolen information for identity theft or financial fraud.

## **Smartphone security tips**

If you want to know how to protect your phone, essential smartphone security tips include:

### **Keep your phone locked**

If your device is stolen, the thief could obtain access to your personal information. To prevent this, it's important to have a lock on your screen. Whether this is a passcode, pattern, fingerprint, or face recognition depends on your preferences and your device's capabilities.

You can usually specify how long the phone can be idle before locking when enabling a lock screen. Choose the shortest amount of time to increase your phone security. You are protected because the screen locks automatically even if you forget to lock it yourself. It will also conserve your battery because the screen goes dark after a set period of inactivity.

Setting this up is straightforward. For most Android devices, you can find instructions within *Location & Security Settings*. For iOS users, check within the *General* options of your settings.

### **Create a strong password for your phone and apps**

Create a strong password for your smartphone. If a password attempt fails a certain number of times, the phone will lock, disable, and in some cases even erase all data. Surveys show that many business users don't change the default passwords on their mobile devices or use multi-factor authentication. Weak passwords can place an entire organization at risk.

It's also a good idea to set strong passwords for your apps – this will make it harder for a hacker to guess them. Using unique passwords for each app will ensure that the hacker won't have access to all your information across the board if one password is discovered.

### **Be wary of text messages**

Text messages are an easy target for mobile malware, so avoid sending sensitive data such as credit card details or important private information by text. Equally, be cautious about text messages you receive.

Smishing (phishing via text) and vishing (voice phishing that takes place over the phone) are popular ways to target mobile phone users. A smishing victim may receive a text message that appears to be from a business, prompting them to call a number and disclose secure account information to address an issue with their account. If you receive emails or texts which appear to be from a business asking you to confirm or update account information, contact that business directly to confirm the request. Avoid tapping links in unsolicited emails or texts.

### **Check your browser for the lock symbol**

The lock icon in the browser's address bar indicates that you are on a secure connection and that the website you are using has an up-to-date security certificate. Look out for this when entering personal data such as your address or payment information or sending emails from your mobile browser.

### **Ensure your apps are from reputable sources**

Always download apps from official app stores. Google and Apple test every app before it is allowed into the Play Store or App Store, which means downloading an app from an official store is less risky than obtaining them from

elsewhere. Cybercriminals create fake mobile apps that mimic trusted brands so they can obtain users' confidential information. To avoid this trap, read app reviews and check the developer's last update and contact information. These details should be available within the app information on the store. Deleting apps you no longer use or want is also good practice.

### **Keep your device's OS up-to-date**

From performance to security, mobile phone operating system updates are designed to improve your experience. To ensure a secure smartphone, it's essential to keep your mobile's operating system up to date. Operating system updates protect your device from newly discovered threats. You can check if your phone's operating system is up to date by looking within *About Phone* or *General* and clicking on *System Updates* or *Software Update* (depending on your device).

### **Connect to secure Wi-Fi**

Mobile devices allow us to access the internet wherever we go. Often, one of the first things we do when out and about is search for Wi-Fi. While free Wi-Fi can save on data, unsecured networks carry security risks. To maximize your safety while using public Wi-Fi, connect to a virtual private network or VPN. A VPN encrypts your data, protecting your location and keeping your information from prying eyes. Equally at home, make sure your home network is set up securely to maximize your safety.

### **Don't jailbreak or root your phone**

Jailbreaking or rooting your phone is the process of unlocking your phone and removing the safeguards that manufacturers have put in place so you can access anything you want. Users jailbreak or root their phones to access app stores other than the official ones, but this carries risk. The apps on illegitimate stores have not been vetted – which means they can spy on your phone and steal sensitive information.

### **Encrypt your data**

Our smartphones hold a wealth of data. If your phone is lost or stolen, sensitive information like your emails, contacts, and financial information could be at risk. To protect your mobile phone data, you can encrypt it. Encrypted data is stored in an unreadable form so it can't be understood. Most phones have encryption settings you can control via the security menu.