Topic 1: Privacy

1. An opt-out policy requires users to do something themselves in order to let the company know that they don’t want their information to be shared. If the user doesn’t do anything, it is assumed by the company that they can share their data. Under an opt-in policy, the organization may not share the user’s data unless the user explicitly gives them permission to do so by checking a box, clicking a button, etc. Overleaf has an opt-out policy.
2. One tool to protect privacy is anonymizers which allow people to surf the web anonymously leaving behind no evidence that could identify them or their computer. Another tool is ad blockers which block ads some of which may collect personal information or even install malicious software. Although there are some pros and cons that come along with blocking ads – although most times the user may never see the cons.
3. The default setting should be to have the app not track users’ activity. Users should be fully informed about the data they are sharing. In addition, some users may not necessarily realize they are sharing data if the default setting is to track users’ activity. If someone is rushing through downloading an app or is not aware of the new app tracking feature, they may not know to select an option. In this case, the user would be sharing data without being aware of it, and as mentioned in 2.1, they would not realize you need to delete data to keep it from being leaked or misused. Informed consent is very important, and users’ data should not be collected unless the user is informed, and they give their consent fully understanding what is collected and how it may be used. While users are given an option to choose whether to share their data or not, there is not enough info given at the time for a user to be adequately informed. Many users may just click out of this prompt in order to install the app. Once again, this would lead to the user not being adequately informed. While it may be easy to blame this on the user, from a business perspective, it is more ethical to default to not collecting data unless explicitly given permission by the user.
4. One of the most surprising things to me, is that even when they opted to not have their data tracked, many apps still tried to track data. In fact, apps like “Streamer Life!” and “Subway Surfers” had more track attempts when they opted to not have their data tracked than when they allowed tracking. This is honestly shocking to me as I was a little hopeful that the App Tracking Transparency (ATT) feature worked at least a little bit. I was also surprised at how much data is tracked by some trackers. Most of the trackers they found tracked basic information such as name, time zone, language, etc., but the Chartboost trackers collected so much more information and much of the data it tracks could be sensitive information. It collected things such as device name, battery charging state, free storage space, and it even had access to audio input from the microphone. The last one is really shocking to me. I don’t think apple should completely remove the ATT feature, as I do think it is important for users to be able to give their consent, however in its current state it is misleading. Apple’s claims to complete privacy for users who opt out of tracking aren’t true. This could be dangerous for some users – if someone opts out of tracking, then in their mind, none of their data is being shared, when in reality, a lot of their data is still being shared with 3rd parties. Apple should improve their ATT feature and limit 3rd party access so that when a user opts out of tracking, they are truly not sharing their information with a bunch of 3rd parties. Renaming this feature could help, but based on the findings from Lockdown Privacy, the feature is essentially useless as it is right now. It would need a major overhaul with many improvements to be worth keeping.

Topic 2:

1. The biggest part of ACM’s Code of Ethics that align with Haugen’s decisions would be “Avoid Harm”. Haugen claimed that Facebook “harm children” and “threaten democracy”. Another major part of the code would be to “Ensure that the public good is the central concern during all professional computing work”. Haugen was primarily just worried about how the unethical things happening at Facebook might affect the public and wanted to make people aware of these issues.
2. Zuckerberg describes the Metaverse as a world with virtual or augmented reality where there is a real sense of presence unlike many of our digital platforms today. One of the parts of the ACM’s Code of Ethics that Meta should respect is “Recognize and take special care of systems that become integrated into the infrastructure of society”. Zuckerberg’s goal is to essentially have this online virtual platform that also integrates with the physical world through augmented reality, so he needs to make sure to take special care of these systems if they do eventually become fully integrated with the real world.
3. Zuckerberg says that the question of mental health and “toxicity” isn’t unique to the internet or social media. He says that these problems exist even in magazines. He also says that these are important topics and that they have teams dedicated to studying them. He said that some of the reporting was out of proportion and only focused on some of the negative metrics rather than looking at all of them. He also said that they took steps to improve the negative metrics. He believes that a more accurate characterization is that social media is better for their mental health, but this was covered up when the media focused only on the few negative metrics. He also claims that no other tech companies are doing the kind of research on mental health like Facebook/Meta is and that it is unfair for them to have this negative characterization when they are actively taking steps to improve things.
4. I think that if there was truly only 1 negative metric that the media coverage was unfair. I think that the media does sometimes tend to only look at things that support the headline they are trying to get out. However, I personally do believe that social media can be toxic at times, but if Meta is truly doing research and trying to improve this aspect, then that should have been shared more in the media coverage. It’s ironic, as I sometimes think the media itself can be toxic or only look at things from one perspective, so in a way, the media is struggling with some of the same issues they claimed Facebook/Meta had.

Topic 3: Copyright and Fair Use

1. Declaring code is code that is written in an API that locates and invokes the implementing code that the computer needs to carry out the task it has been instructed to do. The command written by the programmer matches up with some declaring code in the API that provides the name of each “task” along with the location of it within the API’s organizational structure. An example of this could be when we import packages in our own code. We have our import statement where we import something such as “java.util.Scanner”, and then we can use all of the pre-written code within the Scanner class within our own code instead of having to re-write the entire thing ourselves.
2. Implementing code is the code that tells the computer how to execute the task a programmer has asked it to do. A good example of this would be a simple method to add up all the numbers in an array. A more in depth example with the Scanner class, would be any of the methods that are written in the Scanner class – methods such as “.nextInt()”, “nextLine()”, etc.
3. If google had copied the implementing code, then that would constitute a fair use violation. However, since they just copied the declaring code, in a way, Oracle didn’t suffer at all from this. One of the main factors to determining if something is “fair use” is the effect of the use on the potential market for or value of the copyrighted work. Google wrote its own implementing code, so in a way, the main core of Oracle’s code isn’t even used by Google. While the structure is similar, the code itself is different and may function differently in some methods, thus, Oracle didn’t suffer from this. If Google had copied the implementing code as well, then Oracle suffer because their entire codebase would have been copied and used elsewhere, and that would constitute a fair use violation.
4. I do agree with his reasoning. Google copied the declaring code in order to make it easier for developers to work on the Android platform despite there being numerous ways they could have written it. They copied it in order to make their jobs easier, but they could have easily written it another way that wouldn’t have been copying from Oracle. The declaring code that Oracle wrote should still be protected by copyright since it was written by them, and there are numerous ways that it could be written. Obviously, the general structure would be similar, however the method names and alike could be different. However, I do also understand why it was considered fair use and not protected by copyright. Since it is declaring code, and not the actual implementing code, it really doesn’t do anything by itself. In addition, there may be very few ways that a particular method could be written that make sense or aren’t super long. For example, a method that adds two arrays together could be called “addArrays()”, and there really isn’t any other name that is straight and to the point. However, for these cases, it would be understandable that they might be the same, but this could happen even without copying the entire declaring code.

Topic 4: Free Software and Open Source Software

1. One con of free software is that much of it is not easy to use, especially for those that aren’t technically savvy. Another con is that since it can be modified, there may be many versions of a software in existence which can be very confusing for businesses and nontechnical consumers who want to just download the software, or if they need assistance, they might not have a place to go to for help. However, since many people can modify it, millions of programmers can read through the code and help find and fix bugs. In addition, this allows programmers to modify free software to work better for a certain situation.
2. An example of free software is the Atom text editor. While it has now been sunset, it was a great free text editor that could be used however you wanted. It’s source code was freely available for anyone, it could be redistributed, and you could modify it and redistribute your modified versions.
3. Atom was open source as well. It had an MIT License which is part of the open source initiative and allowed for any part of the code to be reused as long as a copy of the original license was included. Free Software and Open Source are similar terms, however free software focuses on what the recipient of the software is allowed to do with that code/software, and open source refers more to how the software can be developed and distributed by many. In the case of Atom, it is free in the sense that anybody can use it however they want and modify it, and it is open source as it allowed anyone to make changes or fix bugs within the source code.
4. An example of software that is not free would be something such as Microsoft Suite. While it is not free in the money sense, it is also not free in the ideological sense either. The source code is hidden, and only people at Microsoft can make changes to the source code. Although, there are many similar free software versions out there such as Libre Office.