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Project One

When engineering personal algorithms for social media networking companies, you must understand the ins and outs of neural networks in artificial intelligence. Part of this understanding includes protecting user data, following regulations and requirements for the platform, and making sure that the recommendations to users are relevant.

A neural network is a machine's “brain” pathway. Neural Networks are displayed and act as how brain neural pathways work with conveying and receiving emotions. Within the Neural Networks, there are three layers in this system setup. There's an input layer that receives raw data. In this layer, this layer represents how neurons receive data. The second layer is a possible combination of hidden layers. In this layer, the data is being computed, and the data is being broken down as needed by the system. Lastly, there's an output layer. In this layer, once the data is calculated and the information is broken down, the system can then output the information based on the system's needs. As the neural network learns, predictions and calculations become more precise.

Personalization within neural networks is used to analyze data from users. When analyzing user's data, there are many ways this can influence advertising and recommendations on social sites. By analyzing user data, sites can personalize content to users based on their data. Places like Facebook recommend friends and groups to users based on their friends and their views on that platform. Advertising can also be targeted towards users based on the data from what they view. In the case of neural networks, some ethical concerns are raised. One of which is the protection of user data. If the data gets leaked, user data is compromised. Another issue is the lack of transparency with how the algorithm works and how the user data is interacted with. The use of data that isn't very inclusive could lead to hidden and unfair bias.

General Data Protection Regulations are important to helping keep user data treated fairly and safe. The General Data Protection Regulations has rules and principles that help protect and impact user data and their privacy. One of these principles includes transparency with users about how their data is being used. Another principle they employ is that the companies can’t do whatever they want with the data and can’t be used or sold. Another of the General Data Protection Regulations principles is a no-brainer, but the privacy and security of the data need to be an important priority. Companies also need to be responsible and are to uphold the principles of the General Data Protection Regulations to ensure users' safety.

Regulations and the principles they carry. Oftentimes, users are unaware of how their data is used. The lack of transparency is not fair for some users and how monitored it is. We have seen a lot of issues with places like TikTok and Facebook and have had talks about their data being sold to other countries and industries, often through their advertisers. A lot of companies collect more data than is needed which is considered invasive and leaves little to no privacy. This is seen with certain phones, where saying a keyword will completely change how you see ads. Some companies also store and save user data and their past data which is against the General Data Protection Regulations and the principles they push. Data collection is an important part of how the business model wants to deliver personalized experiences for users as well as advertising personalization. Although data needs to be collected, to stay ethical, old data doesn't need to be kept aside for training purposes. The model doesn't need a broad amount of user data, so by minimalizing how much data is needed, users will feel less exposed. Being transparent about how the company is using the data is another big point that needs to be opened up to users. This allows users to be comfortable and understand how their data is being used and why. Lastly, adding diversity to the data set and avoiding bias in ads and user personalization makes the platform fair and safe for all users.

1. Propose adaptations to the company’s practices to act in compliance with the GDPR by addressing the following:

Adapting to the General Data Protection Regulations is important to protect the privacy of the user. Data encryption is a great tool that can be used to help encrypt user data and prevent it from being reverse-engineered. Many companies have AI models that explain how user data is being used such as how Microsoft support does. When training the neural networks, using data that is generalized can help avoid the use of mass data collection from users. If data needs to be collected, by adding an anonymized feature, user data will be more private and only about the data rather than the person's personal and sensitive info. Adding changes to the transparency allows users to feel comfortable and understand how their data is being used. Limits to the amount of data collected and how it is used would greatly improve the safety of user data to avoid leaks and allow users to maintain their privacy. Keeping the security up to date is super important to making sure the data is protected and kept safe.

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