IS1108 – Digital Ethics and Data Privacy

Individual Assignment

Enhanced E-Commerce System (EES)

Overview

Imagine surfing on your eCommerce mobile app (Taobao, EZBuy, Qoo10, Shopee, or Lazada) for something you want to buy, then changing to your social media app awhile later (Facebook, Instagram, Twitter, or TikTok). However, to your surprise, you start to find that the products which you are searching for previously, are being featured as ads on the social media platform! You start scrolling further and see more of the similar products featured across other social media platforms. This is called omnichannel marketing. In a gist, it is where apps are able to detect your search history from other platforms and predict ads that may interest you.

Now picture that you are the developer of a software with similar capabilities. That is, you are to develop a full-fledged Enhanced eCommerce System (EES) that can do inventory and order management but can also connect to social media platforms such as Facebook and Instagram to do omni-channel marketing. Such that it will be able to analyse customers' information and their demographics, to tailor suitable ads to entice these customers to come back as recurring customers.

Background

Your EES has extensive features such as inventory management, where it is able to stock take basic perishable items being sold on your platform, but also able to detect tending and in-demand items that would potentially sell in excessive amounts. Thus, your EES would alert you, to pre-order potential in-demand products/items before a big sale.

Secondly, your EES can log customer demographics from your web platform during order management. This includes their spending habits, preferred shopping cart items, previously viewed cart items, previous shopping history, demographics and even their social media viewing habits.

Currently, most systems in the market simply do order management without data analytics, and data-driven insights incorporated. Hence, to give yourself a competitive advantage, you decide to include the previously mentioned features into your EES system.

As a result, favoured customers who spend more, are enticed to spend even further through your system. Similarly, your EES would provide marketable ads on social media platforms, increasing the total number of consumers on these platforms.

Furthermore, you can build the data analytics and tracking capabilities of your software, to even observe the geolocation, related members that may be in the proximity of the said user, and structure products/ads towards their liking. This further enhances the marketability of your application. You even incorporate Artificial Intelligence (AI) into your platform to help you make decisions on the types of advertisements to target the most optimal users. In fact, the AI can even help you autonomously track more details from customers and derive new marketing angles for you to approach towards.

However, there are also concerns about your EES. Some consumers may dislike the idea of software tracking their usage of their phones. Furthermore, knowing that software can geolocate, demographically categorise consumers, and even know the thorough details of their spending habits, would almost certainly raise ethical concerns about your EES.

 Furthermore, with that many data being passed through your application, and stored in end-points, data integrity could become a rising issue as more consumers tune into your platform and start shopping. Similarly, with the integration of AI, potential derailment of your software could also occur, where the AI is not doing what it was initially intended to do.

Ethical Considerations

In this assignment, analyze the proposed EES system, and derive how can you ensure that your software, as well as your team of developers, abides by the ethical code and does not breach any digital ethics?

You are expected to make use of the FISh model as a primary framework for organizing the report. This approach ensures that students systematically analyze ethical issues in digital technologies and provide well-supported, actionable solutions.

Ensure that you use the provided report template for submission.

1. Submit the PDF copy of the report.

2. Report Guidelines:

- Length: 1,500–2,000 words (excluding references).
- Format: Typed, double-spaced, 12-point Times New Roman or Arial font.