

Part 1: ChatGPT opportunities & constraints

a)

With the advancement of generative AI (Artificial Intelligence) language models, more opportunities to increase overall efficiency and quality of life are emerging. We can employ generative AI language models to improve customer service. For example, it can be used to deliver automated, efficient, and scalable customer services and assistance (Santhos *et al*, 2023). We can employ generative AI language models to automate customer service. These are known as automated agents (Kramer, 2022). They are programmed to follow a set of rules to deliver more efficient, and scalable customer service, such as responding to frequently answered questions (Santhos *et al*, 2023). Chatbots eliminate the need for clients to wait in phone lines or email a professional if they have a problem (Juglan *et al*, 2023) and are available all the time. Each time the AI interacts with a consumer, the chatbot improves its responses, enhancing customer service quality and making it more appropriate for future customers with similar concerns (Chowdhury, Md Naseef-Ur-Rahman, 2023). A notable example of application of this technology is in e-commerce, such as Amazons' AI customer support chatbot which allows users to cancel an order or change their membership status with guided help from the AI (Kramer, 2022). The models can provide additional assistance by supporting multiple languages, increasing accessibility to customer support services (Chowdhury, Md Naseef-Ur-Rahman, 2023).

b)

Attempting to incorporate generative AI language models in customer support services poses numerous ethical concerns that can constrain the application of the chatbot; a prime issue is consumer privacy concerns. The AI model would need access to vast collections of users' data to improve their responses, potentially highlighting flaws in the company's current data protection policies. Procedures and regulations would need to be devised to ensure that the data is handled and used appropriately (Pratim Ray, 2023). To ensure this is enforced, article 9 of the general data protection regulation (GDPR) does not allow processing of certain categories of personal data, e.g., storing someone's ethnic origin to uniquely identify the person (Art. 9, GDPR, 2016). However, this would limit the amount of user data that the AI can access to create more personalized answers. While AI languages can adapt and improve their responses over time, this may not always be appropriate in instances where the newly learnt advice can cause safety hazards (Oviedo-Trespalacios *et al*, 2023). Furthermore, for AI languages to improve their answers they should take the context of the scenario into account, which would necessitate additional computing resources. Consequently, this can have negative environmental impact such as increased energy usage, so it should be questioned if such services are absolutely needed for the customer's experience (Pratim Ray 2023).

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Part 2: MisUsing ChatGPT

a) AI Technology: Autonomous Delivery Drones

Soon-to-be, an esteemed e-commerce giant will take an extraordinary step, unveiling a remarkable fleet of autonomous delivery drones. This groundbreaking initiative promises to revolutionize its package delivery services while offering eco-friendly solutions in urban areas. By employing these drones, the company hopes to streamline operations while decreasing carbon emissions caused by conventional delivery trucks; marking an exciting step toward creating a greener and more efficient future. As with any technological advance, however, an intricate ethical conundrum arises with delivery drones. As it becomes apparent that their programming prioritizes speed and efficiency over safety concerns, creating an enormous ethical dilemma for news media organizations. This ethical issue forces the company to consider an essential question: Should they optimize drone operations for efficiency, increasing risk of accidents with pedestrians and other aircraft, while potentially heightening risks? Or should they impose speed limits, prioritizing safety at the cost of delivery speed? Finding an ethical balance between efficient deliveries and public safety poses a daunting and intricate challenge that the company must now navigate; ultimately aiming at upholding commitment to efficient service while protecting public welfare is the aim.

b) An analysis of the ethical dilemma using Principles of the ACM Code

The AeroSwift Technologies company's notion of using automated delivery drones raises a slew of ethical and privacy concerns, which is why adhering to the ACM Code of Ethics and Principles is critical. To begin, the company violates principles of ACM code of Ethics and Professional Conduct from section 1, 2 and 3. AeroSwift violates principle 1.2 by failing to ensure that there is no harm caused by their product as there was damage caused to the environment and the incident could have also been severe if a person were injured. AeroSwift violated principle 2.2 as they failed to act responsibly and ensure that their drones are tested thoroughly which caused the incident in the first place. Furthermore, AeroSwift also violates principles 3.1 and 2.7 as they failed to be thorough with their investigation and address how they would prevent further incidents from happening. Lastly, AeroSwift violates principle 1.6 as the item being delivered by the delivery drone could have been stolen as there was no way to ensure that there would be no unrestricted access to the data which highlights the company's failure to protect an individual's privacy and security.

c) Comment on the Prompt and ChatGPT's Response

To the prompt given, ChatGPT generated insightful views on how the ACM code of ethics needed to be followed. It provided a well-balanced, but broad and vague analysis of the automated delivery drone company ethics. The response from ChatGPT of how the company should follow the ACM Code of Ethics was given as bullet points. This was good for narrowing down and pinpointing the specific principles in the code of conduct that the company had the responsibility to follow, as it was in reach of potential breach in their field of work. Also, for each code of conduct principle picked ChatGPT outlined a possible ethical dilemma that needed to be put into consideration. This gave innovative ideas into what directions this debate could go, but the explanation for each chosen code of conduct principle was oversimplified and extremely vague. None of them showed a deeper understanding of why that code of conduct principle had been picked. For example, when explaining privacy and security, it mentions data collected from the environment can be exploited for malicious purposes. This makes it not very plausible, as the mentioned "malicious purposes" are not explained any further. Consequently, ChatGPT response had to be edited extensively to include more realistic scenarios.

EV

Give me a fictitious case study on automated delivery drones with a scenario to illustrate how the ACM code of Ethics and Professional Conduct can be applied



Case Study: Ethical Application of ACM Code of Ethics in Automated Delivery Drones



Company: AeroSwift Technologies

Scenario:

AeroSwift Technologies is a pioneering company in the field of automated delivery drones. They have developed a fleet of drones designed for efficient, eco-friendly package deliveries. One day, an unexpected situation arises that tests the company's commitment to the ACM Code of Ethics and Professional Conduct.

Regenerate

Scenario Overview:

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AeroSwift Technologies has been using their automated delivery drones for several years with a stellar safety record. These drones are equipped with advanced obstacle-avoidance technology and have been operating in various environments without any major incidents.

One day, during a routine delivery flight in a suburban area, a sudden software glitch occurs, causing one of the company's drones to lose control temporarily. The drone veers off course and collides with a residential building, causing minor damage. Thankfully, no one is injured, but the incident raises several ethical concerns for AeroSwift Technologies.

Application of ACM Code of Ethics:

1. Responsibility (Section 1.1):

Regenerate

AeroSwift Technologies must acknowledge their responsibility for

1. **Responsibility (Section 1.1):**

AeroSwift Technologies must acknowledge their responsibility for the incident and its consequences. They should ensure that the design, testing, and operation of their drones meet high safety standards.

2. **Privacy and Security (Sections 1.3, 1.4):**

The company must immediately assess the potential data breach caused by the drone's malfunction. If any private information was compromised, they must notify the affected parties and implement stronger data security measures to prevent future breaches.

3. **Transparency (Section 1.7):**

AeroSwift Technologies must be transparent about the incident, promptly informing the public, regulatory authorities, and customers about what happened, how they are addressing it, and what measures they will take to prevent similar incidents.

4. **Professional Competence (Section 2.1):**

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The company should conduct a thorough internal review of the incident to identify the root cause, and provide additional training and resources to their engineers and operators to ensure the competence required to prevent such glitches in the future.


5. **Privacy (Section 3.1):**

The company must reassure customers that their privacy remains a top priority by explaining the steps taken to protect personal data collected during drone operations.

6. **Intellectual Property (Section 2.5):**

If the software glitch is attributed to intellectual property infringements or vulnerabilities in third-party software, AeroSwift Technologies must engage in ethical negotiations to resolve these issues while protecting their own intellectual property.



 Regenerate

7. **Social Good (Section 1.6):**

AeroSwift Technologies should assess the incident's impact on the surrounding community and evaluate if their technology is truly serving the greater good. They may need to invest in community initiatives or offer affected residents compensation or support.

8. **Environment (Section 2.8):**

The company should also evaluate the environmental impact of the incident, taking measures to ensure any debris or hazardous materials from the crash are safely and responsibly managed.

9. **Accountability (Section 1.2):**

AeroSwift Technologies must be accountable for the software glitch and its consequences. They should conduct a thorough investigation, share the results with the public, and implement corrective actions to prevent similar incidents in the future.



materials from the crash are safely and responsibly managed.

9. **Accountability (Section 1.2):**

AeroSwift Technologies must be accountable for the software glitch and its consequences. They should conduct a thorough investigation, share the results with the public, and implement corrective actions to prevent similar incidents in the future.

By applying the ACM Code of Ethics and Professional Conduct, AeroSwift Technologies can navigate this unexpected situation ethically, rectify the incident, regain public trust, and ensure that their automated delivery drones continue to serve society safely and responsibly.



CERTIFICATE of ACHIEVEMENT

This is to certify that

Hansel Natividade Rodrigues

has completed the course

Find It! Use It! Reference It! QMUL Information Literacy Skills

CERTIFICATE of ACHIEVEMENT

This is to certify that

Rahimullah Rasul

has completed the course

Find It! Use It! Reference It! QMUL Information Literacy Skills

Part 4, Team Contribution Statement

Team Contribution Statement

Assignment Number:	1
Group Number:	13.1

Write the name of each of your group members in a separate column. For each person, indicate the extent to which you agree with the statement on the left, using a scale of 1-4 (1=strongly disagree; 2=disagree; 3=agree; 4=strongly agree). Total the numbers in each column. **Include a completed and signed Team Contribution Statement in your group submission file.**

Evaluation Criteria	Name: Amrita Rangi	Name: Carlo Micu	Name: Hansel Natividade	Name: Rahimullah Rasul
Attends group meetings regularly and arrives on time.	4	4	4	4
Contributes meaningfully to group discussions.	4	4	4	4
Completes group assignments on time.	4	4	4	4
Prepares work in a quality manner.	4	4	4	4
Demonstrates a cooperative and supportive attitude.	4	4	4	4
Contributes significantly to the success of the project.	4	4	4	4
TOTALS	24	24	24	24

Feedback on team dynamics:	
1.	<p>How effectively did your group work?</p> <ul style="list-style-type: none"> • We effectively assigned each other roles (e.g., scribe, coordinator etc) • Each of us got allocated sections to write up, allowing everyone to contribute fairly • We always finished the drafts before the suggested deadlines, allowing time to proofread and give feedback on each other's work
2.	<p>What did you learn about working in a group from this project that you will carry into your next group experience?</p> <ul style="list-style-type: none"> • How to break the task into more manageable subtasks so that every individual of the group can do a specific task • Planning and managing time together • How to have constructive discussions to further everyone's understanding and to generate ideas for potential topics that could be written about later

	Full Name	Signature
1	Amrita Kaur Rangi	AKRangi
2	Hansel Rodrigues	HRod
3	Rahimullah Rasul	Rahim
4	Carlo Micu	CMicu

DECLARATION: We, the team members, have discussed and agreed to the ratings and comments given above.