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PROFESSIONAL ETHICS (HUL-304)

ASSIGNMENT

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MODULE 1

1. Power and Social Justice

Case: A renewable energy firm introduces a large-scale wind farm project in a coastal region. While it promises clean energy and job creation, it requires displacing fishing communities, impacting their livelihoods and cultural practices.

Questions and Answers:

1. How can sustainable energy projects be implemented without disrupting traditional lifestyles?

Answer: The company should involve local communities in the planning process, offer fair compensation, provide alternate livelihoods, and ensure the preservation of cultural practices.

2. What ethical responsibilities do companies have toward affected communities during such projects?

Answer: Companies must prioritize community engagement, ensure transparent communication, minimize displacement, and invest in long-term community development initiatives.

2. Society

Case: An e-commerce company plans to introduce drone delivery services in a rural area. While it could boost connectivity and local businesses, residents are concerned about noise pollution and privacy invasion.

Questions and Answers:

1. How can technological advancements like drone delivery coexist with community well-being?

Answer: The company should develop noise-reducing technologies, respect privacy through clear operational boundaries, and conduct pilot tests with community feedback.

2. What responsibilities do tech companies have toward communities when implementing new services?

Answer: Companies should perform environmental and social impact assessments, maintain transparency, and ensure benefits outweigh the disruptions caused.

3. Human Values

Case: A pharmaceutical company is accused of overpricing life-saving drugs, limiting accessibility for low-income populations despite recording high profits.

Questions and Answers:

1. How can pharmaceutical companies balance profitability with social responsibility?

Answer: Companies should adopt differential pricing strategies, collaborate with governments for subsidies, and prioritize accessibility for marginalized communities.

2. What ethical principles should guide the pharmaceutical industry?

Answer: Principles include prioritizing human lives over profits, transparency in pricing, and equitable access to essential medications.

4. Social Organization and Disorganization

Case: A government mandates cashless transactions for public services to promote digital payments, leaving digitally illiterate citizens struggling to access essential services.

Questions and Answers:

1. How can digital transformation be inclusive of all societal segments?

Answer: The government must provide digital literacy programs, offer transitional support, and maintain alternative systems for those unable to adapt.

2. What ethical principles should guide large-scale digital transformations?

Answer: Transformations must prioritize inclusivity, ensure equal access, minimize hardships for vulnerable groups, and be implemented transparently.

5. Tradition vs. Modernization

Case: A tech company offers to digitize historical manuscripts, but scholars fear that digitization could dilute their cultural essence and context.

Questions and Answers:

1. How can cultural preservation balance modernization with authenticity?

Answer: The company must collaborate with historians, include contextual explanations, and ensure digital versions are accessible without replacing physical archives.

2. What ethical frameworks should guide the digitization of cultural artifacts?

Answer: Frameworks must ensure community consent, protect intellectual property, and maintain cultural sensitivity in digital representations.

MODULE 2

1. General Ethics

Case: A tech company develops a wearable health device that provides early warnings for heart conditions. However, the device is only affordable for wealthy customers, raising concerns about equity in healthcare.

Questions and Answers:

1. How can healthcare technology balance innovation with affordability?

Answer: The company should adopt tiered pricing models, partner with governments for subsidized distribution, and ensure critical health tools are accessible to underserved communities.

2. What ethical responsibilities do companies have toward equitable access to healthcare innovations?

Answer: Companies must prioritize inclusivity, invest in cost-effective manufacturing, and implement policies that address disparities in healthcare access.

2. Professional Ethics

Case: A university laboratory discovers a new method for cleaning up oil spills with minimal environmental damage. However, commercializing the technology requires partnerships with oil companies, raising concerns about potential exploitation.

Questions and Answers:

1. How should research teams navigate ethical concerns when collaborating with industry partners?

Answer: The team must establish clear ethical guidelines, ensure mutual accountability, and prioritize environmental protection over profit-driven motives.

2. What ethical considerations are critical when transitioning scientific research to commercial applications?

Answer: Considerations include maintaining scientific integrity, ensuring equitable benefits, and safeguarding the original intent of the research for societal good.

3. Professional Responsibility

Case: A software company creates an AI-driven recruitment tool to eliminate hiring biases. However, employees discover that the algorithm disproportionately disadvantages certain demographic groups due to historical bias in the training data.

Questions and Answers:

1. How can AI tools be designed to prevent perpetuating historical biases?

Answer: Developers must audit training datasets for biases, involve diverse stakeholders in the design process, and implement mechanisms for continuous bias detection and correction.

2. What responsibilities do developers have when creating AI tools for sensitive applications like recruitment?

Answer: Developers must ensure fairness, maintain transparency, regularly test for unintended consequences, and engage in ethical decision-making throughout the lifecycle of the tool.

MODULE 3

1. Professional Responsibility

Case: A transportation agency develops an AI-driven traffic management system to optimize urban traffic flow. However, the system requires constant surveillance of vehicle movements, raising privacy concerns among citizens.

Questions and Answers:

1. How can smart traffic systems balance efficiency with individual privacy?

Answer: The agency must anonymize collected data, seek public consent, implement robust data protection measures, and provide clear policies on data usage and retention.

2. What ethical principles should guide technological interventions in public infrastructure?

Answer: Ethical principles include prioritizing transparency, safeguarding individual rights, ensuring equitable access, and maintaining public trust.

2. Social Responsibility

Case: A biotech firm develops an affordable vaccine for a widespread disease but patents the formula, restricting local manufacturers in developing countries from producing it.

Questions and Answers:

1. How can companies ensure affordable healthcare solutions while protecting intellectual property?

Answer: Companies should adopt flexible licensing models, collaborate with governments and NGOs, and prioritize global health over exclusive profits.

2. What ethical responsibilities do corporations have in global healthcare crises?

Answer: Corporations must act with urgency, ensure equitable distribution, and balance profitability with moral obligations to save lives.

3. Ethical Dilemma

Case: A team of researchers develops a biodegradable alternative to single-use plastics. However, mass production requires the use of scarce natural resources, raising sustainability concerns.

Questions and Answers:

1. How can innovations address environmental challenges without creating new resource dependencies?

Answer: Researchers must explore alternative materials, adopt circular economy principles, and ensure production processes minimize environmental impacts.

2. What ethical considerations should guide the development of environmentally friendly innovations?

Answer: Innovations should prioritize sustainability, balance short-term gains with long-term consequences, and engage stakeholders in assessing environmental trade-offs.

MODULE 4

1. Work Culture vs. Work Ethics

Case: A financial services company introduces a mandatory monitoring system that tracks employees' keystrokes and online activity to measure productivity. Employees raise concerns about privacy and stress due to constant surveillance.

Questions and Answers:

1. How can productivity monitoring balance organizational goals with employee well-being?

Answer: The company must ensure transparency in monitoring policies, seek employee consent, limit monitoring to work-related activities, and provide opt-out options where feasible.

2. What ethical considerations are critical in implementing workplace monitoring technologies?

Answer: Considerations include respecting employee privacy, preventing undue stress, using data solely for legitimate purposes, and fostering a culture of trust.

2. Entrepreneurship Development and Ethics

Case: A social enterprise develops a mobile app to connect small-scale farmers directly with consumers, cutting out intermediaries. However, some farmers lack the digital literacy needed to use the platform effectively.

Questions and Answers:

1. How can technological solutions ensure inclusivity while addressing socio-economic challenges?

Answer: The enterprise must offer training programs, design intuitive interfaces, and provide offline support options to ensure equitable participation for all farmers.

2. What ethical principles should guide the development of solutions for marginalized communities?

Answer: Principles include respecting community needs, ensuring accessibility, maintaining transparency, and empowering users through participatory design.

MODULE 5

1. Interaction Between Humans and the Internet

Case 1: An online learning platform uses adaptive algorithms to personalize course recommendations. However, some users find the recommendations limiting as they only reflect past performance, potentially stifling exploration.

Questions and Answers:

1. How can personalized algorithms balance guidance with user autonomy?

Answer: The platform must allow users to customize their preferences, introduce diversity in recommendations, and provide options to explore beyond algorithmic suggestions.

2. What ethical principles should guide algorithmic personalization in education?

Answer: Principles include fostering inclusivity, preventing bias, ensuring user control, and prioritizing diverse learning opportunities.

Case 2: A video streaming service implements user analytics to recommend content but raises concerns about promoting addictive behavior.

Questions and Answers:

1. How can online platforms balance user engagement with responsible consumption?

Answer: Platforms should introduce features like screen time tracking, enable content moderation tools, and design algorithms to promote balanced viewing habits.

2. What ethical responsibilities do platforms have in promoting healthy internet usage?

Answer: Responsibilities include preventing exploitative designs, educating users about consumption, and prioritizing mental well-being over profit-driven engagement metrics.

2. Computer, Data, and Ethics

Case 1: A ride-sharing company collects location data to optimize routes but faces backlash for sharing anonymized data with third-party advertisers.

Questions and Answers:

1. How can companies use data for operational purposes while safeguarding user privacy?

Answer: The company must implement robust anonymization protocols, obtain explicit user consent for data sharing, and ensure transparency in data practices.

2. What ethical principles should guide the use of customer data?

Answer: Principles include respecting user privacy, maintaining data security, and providing users with control over how their data is used.

Case 2: A healthcare analytics startup develops a predictive model for diagnosing chronic illnesses but struggles with ensuring the accuracy of predictions due to incomplete datasets.

Questions and Answers:

1. How can healthcare technologies ensure accuracy and reliability in data-driven predictions?

Answer: The startup must diversify datasets, conduct extensive testing, involve medical professionals in validation, and transparently communicate model limitations.

2. What ethical responsibilities do companies have in health data analytics?

Answer: Responsibilities include ensuring data quality, protecting patient confidentiality, and avoiding over-reliance on incomplete or biased datasets.

3. Ethical Concerns in Big Data and Public Health

Case 1: A national government launches a health app to track vaccination progress during a pandemic. However, privacy advocates criticize the lack of clear data retention policies.

Questions and Answers:

1. How can governments balance public health priorities with individual privacy?

Answer: Governments must implement time-limited data retention, anonymize records, provide opt-out mechanisms, and ensure transparency about data use.

2. What ethical principles should guide public health technologies?

Answer: Principles include upholding privacy, maintaining transparency, prioritizing voluntary participation, and ensuring equitable access to health services.

Case 2: A wearable tech company introduces a fitness tracker that monitors vital signs to alert users about potential health issues. However, the device has a high error rate, leading to unnecessary medical visits.

Questions and Answers:

1. How can wearable health devices ensure reliable functionality without causing undue alarm?

Answer: The company should improve accuracy through rigorous testing, offer disclaimers about device limitations, and provide supplementary tools for context-based analysis.

2. What ethical responsibilities do companies have when developing health-related wearables?

Answer: Responsibilities include prioritizing user safety, ensuring accuracy, communicating limitations clearly, and avoiding fear-based marketing.