Reflective Activity # 1

In the paper by Stahl, Timmermans, and Mittelstadt (2016), the authors highlight a critical concern within the field of computing ethics: the tendency of many researchers to remain entrenched in their disciplinary traditions, often failing to provide actionable advice to relevant stakeholders. This issue is of paramount importance for computing professionals working in various industries, as ethical considerations play a central role in their daily responsibilities (Stahl,. Et al., 2023). The paper explores how one or more of the ethical issues mentioned in the paper can affect a computing professional's role within a chosen company, the actions that may need to be taken, and the resulting impacts on legal, social, and professional aspects.

One of the key ethical issues raised by Stahl et al. (2016) is the challenge of privacy in the digital age. Computing professionals in companies are often entrusted with vast amounts of personal data, and their responsibility is to ensure its security and appropriate use (Stahl,2020).. Privacy issues are more complicated in the big data era. Computing professionals in healthcare companies may have access to sensitive patient data (Hathaliya & Tanwar, 2020). Failing to protect this data could lead to grave consequences, including identity theft, financial losses, and reputational damage to the company. To address this ethical issue, the computing professional must actively engage in safeguarding sensitive data (Kumari et al., 2018). This involves implementing strong encryption, access controls, and data anonymization techniques. It also requires staying up-to-date with evolving privacy regulations, such as the General Data Protection Regulation (GDPR) or the Health Insurance Portability and Accountability Act (HIPAA) in the United States (Phillips, 2018). In addition, the professional should educate their colleagues on the importance of privacy and data protection, fostering a culture of ethical data handling within the company. Failure to take these actions may not only harm the individuals

whose data is compromised but also expose the company to legal liabilities, fines, and loss of trust in the market.

Furthermore, Stahl et al. (2016) discuss the issue of transparency in algorithmic decision-making, which can directly affect computing professionals working in companies that rely on AI and machine learning technologies (Stahl,. Et al., 2021) These technologies are increasingly used in making important decisions, such as loan approvals, hiring, and content recommendation. The opacity of these algorithms can lead to unfair and biased outcomes, posing significant ethical challenges. To address this issue, computing professionals should advocate for transparency and fairness in algorithmic decision-making processes. This may involve actively participating in the development and auditing of algorithms to ensure that they are free from biases and discrimination (Stahl,. Et al., 2023). It also includes documenting and explaining the decision-making processes to stakeholders, such as customers and employees, in a clear and understandable manner. Failure to do so may result in legal challenges related to discrimination and a negative impact on the company's reputation and customer trust.

Stahl et al. (2016) also touch upon the ethical concerns related to the impact of automation on employment. As automation and artificial intelligence advance, many traditional jobs are at risk of being replaced. Computing professionals working in companies that adopt automation technologies must grapple with the potential ethical dilemma of job displacement (Tschang & Almirall, 2021).. To address this issue, these professionals should actively engage in workforce planning and development. This means identifying areas where human expertise remains essential and providing training and upskilling opportunities to employees whose jobs are at risk of automation. It also involves participating in discussions about the responsible implementation of automation technologies to minimize job displacement and ensure a just

transition for affected workers (Acemoglu & Restrepo, 2018).. Neglecting these actions could result in social unrest, as well as legal and regulatory challenges, especially in regions where job displacement leads to economic hardship and inequality.

Another ethical issue highlighted by Stahl et al. (2016) pertains to the environmental impact of computing. As the demand for computing power continues to grow, the environmental consequences of energy consumption and e-waste generation become more significant (Stahl,. Et al., 2022) Computing professionals in companies that rely heavily on data centers and electronic devices must confront these environmental challenges. To mitigate the environmental impact, computing professionals should advocate for sustainable practices within their companies. This includes promoting energy-efficient technologies, responsible e-waste disposal, and data center cooling solutions that reduce energy consumption. Furthermore, they can lead efforts to measure and reduce the company's carbon footprint and work towards sustainability certifications(Stahl, 2021). Neglecting these actions may lead to legal consequences in regions with strict environmental regulations, damage the company's reputation among environmentally conscious consumers, and contribute to the broader social problem of climate change.

Stahl et al. (2016) also address the issue of professional responsibility in computing ethics. This includes professional norms of behavior, reporting ethical transgressions, and ongoing ethical education. Computing workers in corporations are crucial to maintaining their profession's ethics (Stahl, 2021). To fulfill their professional responsibilities, computing professionals should adhere to established codes of conduct, such as the ACM Code of Ethics and Professional Conduct. They should be prepared to report ethical violations, whether they occur within the company or among their colleagues (Stahl,. Et al., 2023). To keep current on ethical issues and best practices, continuing education and ethical training are crucial. Neglecting

these duties may affect one's reputation, career, and legal standing in circumstances of extreme ethical transgressions.

In conclusion, Stahl et al. (2016)'s ethical challenges have major ramifications for computer experts in numerous businesses. These experts must address privacy, algorithmic decision-making transparency, automation-related job loss, environmental effect, and professional accountability. Managing these challenges is not just ethical but also necessary for legal compliance, social trust, and professional standards. Ethical neglect may result in legal, reputational, and societal issues. Therefore, computer professionals must actively make ethical decisions, promote responsible practices in their firms, and follow social and professional standards. By doing so, they can contribute to a more ethical and responsible computing industry, benefiting both their organizations and society at large.

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