The Impact of Computing on Global Communication

Some examples of how computing has transformed communication include through:

- Instant Messaging & Emails, making collaboration across time zones faster.

- Cloud-Based Collaboration Tools, including Google Drive, Microsoft Teams, and Slack.

- Social Media & Digital Marketing helping businesses reach global audiences.

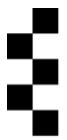- Remote Work & Virtual Meetings, such as Zoom, WebEx, and Microsoft Teams enabling flexible work.

Example:

The COVID-19 pandemic accelerated the shift toward remote work, proving the importance of cloud-based IT infrastructure.

The ethical considerations in computing are more relevant today than ever before. With the rise of artificial intelligence, big data, and surveillance technologies, ethical concerns such as data privacy, algorithmic bias, and digital rights have come to the forefront.

One major concern is the responsible use of artificial intelligence. AI-driven decision-making is now being used in recruitment, healthcare, and finance, but biased training data can lead to unfair and discriminatory outcomes. Companies must ensure that AI models are trained on diverse and representative datasets to prevent bias.

Data privacy is another critical ethical issue. The collection and use of personal data by social media companies, advertisers, and governments must be carefully regulated to protect individuals from

exploitation and surveillance. Regulations such as the General Data Protection Regulation (GDPR) in Europe aim to ensure that companies handle user data responsibly.

Additionally, cybersecurity threats pose risks to both individuals and organisations. Ethical hacking and penetration testing are essential practices to strengthen security systems and protect against cyberattacks.

Ethical computing is about making technology work for the benefit of all while minimising harm. As computing professionals, it is our responsibility to consider the ethical implications of our work and strive for fairness, accountability, and transparency in all aspects of technology development.