**Emerging Technologies**

“Understanding Cybersecurity: Challenges and Solutions”

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1. **Introduction and Background of the Technology topic**

Technology refers to the tools, systems, and processes that are developed to solve problems or meet human needs. Its numerous benefits have become a vital part of our life. It has improved and is still improving the efficiency of medicine, transportation, education, entertainment, and more. Technology has minimized both time and labor while increasing the efficiency of production needs. Technology has made our lives easier, more comfortable, healthier, and more pleasurable. The time before the late 20th century gathering information was long and tedious to get a book that the library did not own would take at least a couple of weeks depending on the time period or it may not have been possible to obtain that book. But now people can access a vast amount of information in a matter of minutes.

In today’s world, the advancement of technology, along with science, has helped us to become self-reliant in all spheres of life. With the innovation of a particular technology, it becomes part of society and integral to human lives after a point in time. As technology continues to evolve and become more intertwined with our daily lives, technology has also brought along a variety of negative effects that we cannot overlook. Cybersecurity, on the other hand, will continue to play a critical role in ensuring that it is used safely and ethically.

Cyber security is the use of technology, practices, and policies to defend against cyber assaults on systems, networks, programs, devices, and data (National Institute of Standards and Technology, 2020). It aims to reduce the risk of cyber assaults and safeguard against unauthorized use of systems, networks, and technology. It is an essential component of modern civilization, and there has never been a greater need for robust cybersecurity measures (Marsden, 2021). Without cybersecurity, technology could be vulnerable to cyber-attacks such as hacking, malware, and phishing scams. The consequences of a cyber-attack can be severe, including financial losses, damage to reputation, and potential harm to individuals or society at large (Boyd & Crawford, 2012).

1. Objectives of the topic – should present the position of the group (good/bad technology)

We cannot escape technology; it has improved the quality of life and brought about revolutions in various fields of modern-day society. It is important to distinguish between unanticipated and undesired consequences when using modern technology.

Cybersecurity Technology is designed to ensure the confidentiality, integrity, protecting sensitive information, such as personal data, financial information, trade secrets, and intellectual property, from cyber threats such as hackers, viruses, and malware, which are essential for businesses, governments, and individuals to function in today's interconnected world.

The researcher wants a good environment to implement a user awareness and Training to cybersecurity to protect private and personal digital assets: As people's reliance on technology grows, cyber assaults on personal and organizational data have become a significant threat. Those who learn cybersecurity get the knowledge and skills necessary to secure digital assets (Private accounts, Emails, Banks and their Devices.) from cyber-attacks. Learning cybersecurity can promote a culture of cybersecurity awareness and best practices on staying ahead of evolving cyber threats. Overall, learning and as well implementing cybersecurity provides numerous benefits.

The purpose of this paper is to give awareness how the changing nature of security dangers is one of the most difficult aspects of cybersecurity. As new technologies emerge, new attack avenues are developed. To keep up with changing security risks, a more proactive and adaptive approach is necessary. It can also help individuals and organizations develop a comprehensive cybersecurity strategy that addresses both technical and non-technical aspects of security.

1. Scope of the topic
2. Presentation of the chosen technology

* Uses and functions.
  + Importance and benefits
  + Literature reviews and supporting information supporting the group position.
    - Technology observations
    - Technology Literature Reviews
    - Surveys and Technology Evaluation

1. Summary
2. Conclusion and Recommendation

* References

<https://www.techtarget.com/searchsecurity/definition/cybersecurity>

<https://www.ibm.com/topics/cybersecurity>

<https://www.scu.edu/ethics/focus-areas/technology-ethics/resources/the-unanticipated-consequences-of-technology/>