

KAMPALA INTERNATIONAL UNIVERSITY

SCHOOL OF MATHEMATICS AND COMPUTING

STUDY GUIDE FOR CERTIFICATE OF COMPUTER SCIENCE

NCIT213 FUNDAMENTALS OF COMPUTER ETHICS

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Study unit 4: Ethical Challenges in Information Technology

Introduction

This unit intends to provide students with overview to ethical challenges in information technology like Security, Privacy issues, Copyrights infringement, increased pressure on IT experts, Digital divide.

Learning Outcomes of Study Unit4

Upon completion of this study unit, you should be able to.

To explain the following ethical challenges in ICT

1. Security,
2. Privacy issues,
3. Copyrights infringement
4. Increased pressure on IT
5. Digital divide

ETHICAL CHALLENGES IN INFORMATION TECHNOLOGY

Security: With tools like the internet, hackers have found it very easy to hack into any computer or system as long as it is connected on internet. Hackers can easily use an IP (Internet Protocol) address to access a user's computer and collect data for selfish reasons. Also the wide spread of internet cookies which collect information whenever we use the internet , has exposed IT users to high risks of fraud and conflicting interests. Many big companies use these cookies to determine which products or service they can advertise to us. When it comes to online banking, the transfer of money can easily be interrupted by a hacker and all the money will be transferred to their desired accounts , which affects both the bank and the customers who is using online banking technology.

Privacy Issues: As much as information technology has enabled us to share and find relevant information online,. It has also exploited our freedom of privacy. Their so many ways our privacy is exploited,

(1) Use of internet webcams, experienced computer users can turn on any webcam of any computer online and they will have access to your private life, many celebrities have been victims of these online stalkers.

(2) use of social networks, the main concept of these networks is to connect with new and old friends then share your life with them, however, the loop hole in this , is that when ever some one access your shared life data like photos , they can like it and send it their friends who are not your friends, which might expose you to users with wrong intentions to use your data, also some companies are known for spying on their employees via these social networks.

Copyright Infringement: Information technology has made it easy for users to access any information or artifact at any given time. With the increased development of music sharing networks and photo bookmarking sites, many original creators of these works are losing the credibility of their works, because users of IT can easily gain access and share that data with friends. Free music and file downloading sites are popping up on internet every day , lots of original work like music albums, books , are being downloaded for free. In this case one legitimate user will purchase the book , software, web template or music album, and they will submit it to a free download site where others will simply just download that data for free. It is good news for the users because it saves them money, but it harms the original creator of these work

Increased pressure on IT experts. Since information technology systems have to run all the time, pressure is mounted on IT experts to ensure the accuracy and availability of these systems. Many big organizations which need to operate 24 hours will require a standby IT team to cater for any issues which might arise during the course of operation? This pressure results into stress and work overload which sometimes results into Imperfection.

Digital divide: Information technology has many opportunities and it has shaped many industries in developed countries; however, developing countries have difficulties of enjoying the same benefits of Information technology. To get these benefits they have to train their labor and users should also adopt the new culture which is a bit costly in these developing countries. In some remote areas they do not even have power, so information technology tools like computers cannot be used. In other sectors like education, most of these developing countries have poor old education systems, so a student will not be aware of new information technologies.

Review questions:

Identify the different ethical challenges faced by IT managers and establish solutions to each of the challenges.

References and Additional Reading Materials

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