

ETHICAL PRACTICES EMERGING TECHNOLOGIES

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PART A I

NEGATIVE EFFECTS OF COMPUTER USE ON THE ENVIRONMENT

CREATION OF WASTE

- ELECTRONIC WASTE (https://en.wikipedia.org/wiki/Electronic_waste)

UNNECESSARY PRINTING OF EMAILS

- DEFORESTATION
(<https://education.nationalgeographic.org/resource/deforestation>)

HEAVY POWER CONSUMPTION

- USAGE OF NATURAL FOSSIL FUELS (<https://www.businessinsider.com/personal-finance/cryptocurrency-environmental-impact>)

PART A II

MEASURES THAT HELP REDUCE THE IMPACT OF COMPUTERS ON THE ENVIRONMENT

LAB REGULATIONS

- BETTER WORK ENVIROMENT ([HTTPS://HELPFULPROFESSOR.COM/COMPUTER-LAB-RULES/](https://helpfulprofessor.com/computer-lab-rules/))

SCHOOL POLICIES

- ELIMINATES SAFTY HAZARDS ([HTTPS://HELPFULPROFESSOR.COM/COMPUTER-LAB-RULES/](https://helpfulprofessor.com/computer-lab-rules/))

PAPERLESS WORKPLACES

- SAVE PAPER COST ([HTTPS://WWW.HYLAND.COM/EN-SG/RESOURCES/TERMINOLOGY/PAPERLESS-OFFICE](https://www.hyland.com/en-sg/resources/terminology/paperless-office))

COMPUTER RECYCLING OR REUSE

- NO ELECTRONIC WASTE ([HTTPS://WWW.CONSERVE-ENERGY-FUTURE.COM/RECYCLINGCOMPUTER.PHP](https://www.conserve-energy-future.com/recyclingcomputer.php))

PART B I

NEGATIVE EFFECTS OF COMPUTER USE ON HUMAN HEALTH

EXPOSURE TO RADIATION

- INTERNAL ORGAN CANCER ([HTTPS://WWW.IJITEE.ORG/WP-CONTENT/UPLOADS/PAPERS/V8I12S3/L101510812S319.PDF](https://www.ijitee.org/wp-content/uploads/papers/v8i12s3/L101510812S319.PDF))

MUSCULOSKELETAL DISORDERS

- SPRAINS, STRAINS, AND TEARS ([HTTPS://WWW.CDC.GOV/WORKPLACEHEALTHPROMOTION/HEALTH-STRATEGIES/MUSCULOSKELETAL-DISORDERS/INDEX.HTML](https://www.cdc.gov/workplacehealthpromotion/health-strategies/musculoskeletal-disorders/index.html))

EYE STRAIN

- WATERY OR DRY EYES ([HTTPS://WWW.MAYOCLINIC.ORG/DISEASES-CONDITIONS/EYSTRAIN/SYMPOTMS-CAUSES/SYC-20372397](https://www.mayoclinic.org/diseases-conditions/eystrain/symptoms-causes/syc-20372397))

REDUCED ACTIVITY LEVELS

- NO PHYSICAL ACTIVITY OR MOVEMENT ([HTTPS://PUBMED.NCBI.NLM.NIH.GOV/11253437/](https://pubmed.ncbi.nlm.nih.gov/11253437/))

PART B II

MEASURES THAT HELP REDUCE THE IMPACT OF COMPUTERS ON HUMAN HEALTH

ERGONOMIC STANDARDS

- BETTER POSITIONING OF BODY PARTS ([HTTPS://WEBSTORE.ANSI.ORG/INDUSTRY/ERGONOMICS](https://webstore.ansi.org/industry/ergonomics))

INCREASE ACTIVITY LEVELS

- HEALTHIER BLOODFLOW ([HTTPS://WWW.CDC.GOV/PHYSICALACTIVITY/BASICS/PA-HEALTH/INDEX.HTM](https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm))

SAFETY EQUIPMENT

- BETTER HANDLING OF HIGH VOLTAGE EQUIPMENT ([HTTPS://SCHOOLWORKHELPER.NET/COMPUTER-HARDWARE-SAFETY-RULES/](https://schoolworkhelper.net/computer-hardware-safety-rules/))

PART C

USING COMPUTERS TO REDUCE RESOURCE USE AND PROTECT THE ENVIRONMENT

COMPUTER MODELLING TO REDUCE USE OF PHYSICAL RESOURCES

- SIMULATIONS
- WEATHER FORECASTING

INTERPRETATION OF LARGE AMOUNTS OF ENVIRONMENTAL DATA

- GEOGRAPHIC ANALYSIS
- CLIMATE CHANGE AND PLANETARY MONITORING

MANAGEMENT OF NATURAL RESOURCES

- MORE ACCURATE MEASUREMENTS AND EFFICIENCY

PROGRAMMABLE TEMPERATURE CONTROL TO REDUCE ENERGY CONSUMPTION

- AUTOMATIC TEMPERATURE CONTROL TO SAVE ELECTRICITY WHEN NOT NEEDED

PART D

PROVIDING ENVIRONMENTAL STEWARDSHIP OPPORTUNITIES

LOCAL COMMUNITY RECYCLING CENTERS

- NATURAL RESOURCES COUNCIL OF MAINE

PRIVATE COMPANIES THAT REFURBISH COMPUTERS

- APPLE

PRINTER CARTRIDGE RECYCLING PROGRAMS

- CASH FOR TONERS

QUESTIONS

WHY DOES FILE SHARING HAVE A BIG IMPACT ON THE ECONOMY?

FILE SHARING HAS A GOOD AND BAD EFFECT ON THE ECOMONY. IT CAN MAKE THINGS EASIER FOR PEOPLE TO SEND FILES TO ONE ANOTHER AND IT COULD ELIMINATE THE USE FOR FLASH DRIVES AND THE TRANSPORTATION NEEDED TO SEND THE FILE. HOWEVER THIS COULD ALSO MAKE FOR PIRACY OF SONGS AND MOVIES WHICH COULD AFFECT BADLY ON THE ENTERTAINMENT INDUSTRY FOR THE ACTORS AND THE BOX OFFICE OR THE ARTISTS IN THE CASE OF SONGS.

IDENTIFY ONE NEW COMPUTER PRODUCT AND THE LEGAL AND/OR ETHICAL ISSUES ASSOCIATED WITH IT.

DEEPMODE

- THE ABILITY TO FAKE A PERSON'S FACIAL EXPRESSIONS AND VOICE GIVEN ENOUGH DATA
- THIS CAN FAKE PRESIDENTIAL SPEECH
- CAN MAKE PEOPLE CONFUSED TO WHICH IS THE REAL INFORMATION
- THIS IS ILLEGAL TO SPREAD MISINFORMATION
- NOT ETHICAL SINCE FAKING SOMEONE ELSE'S IDENTITY WITHOUT PERMISSION.

NAME ONE ISSUE CYBERBULLYING CREATES FOR:

THE CHILD WHO IS BULLIED

- DEPRESSION
- ANXIETY
- SUICIDE

THE CHILD WHO IS BULLYING

- BAD PERSONA OF BULLYING WITHOUT CONSEQUENCES

HOW CHILDREN VIEW THE INTERNET

- PLACE WHERE BULLIES RESIDE
- BAD SPACE FOR EVERYONE TO EXPRESS THEMSELVES