The Impact of Computers on Society

Introduction

Activity 1 - Group Activity

Groups of students will be asked to identify as many examples as they can of the impact that computers have had on society. The following list of "areas of impact" will be provided to the student (in a hand-out) and they will be required to come up with a number of examples in each division.

AREAS OF IMPACT OF COMPUTERS ON SOCIETY

Personal Impact:
Community Impact:
National Impact:
Global Impact:
Future Impact:

Personal Impact

- privacy and personal rights
- data banks, computer terminals, data security
- employment
- job opportunities, new careers, the need for retraining
- business transactions
- automated billing, credit cards, interac, consumer spending
- the replacement of people through automation
- robots, word processing
- the impact that a machine has on a human - ergonomics

Community Impact

- employment
- traffic control
- urban planning
- law enforcement

National Impact

- communications media
- the use of information for control
- vote counting
- electronic funds transfer
- stock-market transactions
- defense
- surveillance
- national data banks
- employment
- shifting patterns
- telecommunications
• satellite broadcasting
• the possibility of fraud or theft using computer based systems
• standards for computer hardware and software

**Global Impact**

• reporting of current events
• communications media
• world government
• international standards
• exploration of space and sea
• world wide access to data

**Future Impact**

• computers in the home
• gaming
• learning
• electronic mail
• shopping
• business transactions
• information processing, storage and retrieval
• the home as a work center
• effect on the family unit and on familiar patterns of life
• travel
• computer communication as a replacement for travel
• the possible disappearance of hard copy as a medium of communication
• the cashless society
• possible effects on the formal education system
• the use of robots in industry and in the home
• teleprocessing networks
• communications networks

**Activity 2 - Class Discussion**

Have computers have gone too far in "dehumanizing" individual people?

• people being reduced to a series of numbers on plastic cards that are processed by machines without human intervention (credit cards, bank cards, social insurance cards, health cards, etc.)
• people having to deal with computers instead of human beings if there is a problem with a computer-prepared bill or bank statement. (How can we argue, object, persuade or do any of the other things that we do as human beings, with a machine?)
• why are student names are not considered to be sufficient for identification purposes?
• identify specific educational computer applications. Start with their school, making a list of the uses the school makes of computers in its administration, in teacher preparation and student work. The first item on your list should probably be the time table. How many more items can they add?

**Activity 3 - Individual Assignment**

Each student will be required to submit an individual research paper in essay format, the instructions for which appear on the next pages.
COMPUTERS IN SOCIETY - INDIVIDUAL ASSIGNMENT

There are many aspects of the impact of computers on society to be investigated. Not all of them can be discussed in class. Research one of the following topics and write a report on it. The report should include a general statement summarizing your answer to the question; this is your thesis or main idea. The rest of your report should consist of the information or evidence that supports your opinion.

☐ Do computers alienate the user from society?
☐ What careers will be in demand in the future? How can we train for these careers?
☐ Is it possible to create artificial intelligence?
☐ Will computers create jobs or eliminate them?
☐ What are the implications of the new technology for Canadian Industry?
☐ How realistic is the prediction of the "paperless office"?
☐ What might the "electronic classroom" be like?
☐ Will computers in the office remove the need for skilled workers or demand new skills and knowledge of employees?
☐ How computer literate will we have to be to operate the computers of the future?
☐ Conduct your own survey to determine if there are any differences between males and females in their use of computers in the school, in playing computer games, in surfing the web, or in choosing computer careers.
☐ How have computers affected the entertainment industry?
☐ How may computers change the home?
☐ Will leisure time increase due to the use of computers in society? How will we use it if it does?
☐ Are we going to have a "cashless society"?
☐ Are computers threatening us with "invasion of privacy"?
☐ How serious is computer crime? What can we do about it?
☐ Does increasing dependence on computers make them attractive as terrorist targets?
☐ Is it immoral to copy software?
☐ Is there a relationship between video games and juvenile crime?
☐ How can computers help people with handicaps?
☐ What are the occupational health and safety hazards of computers?
☐ Choose your own topic. Discuss your idea with the teacher before proceeding further.

Activity 5 - Group Assignment

The teacher will decide whether students will be permitted to choose their own group members or if the groups will be pre-selected based upon the teacher's observations of student work habits and abilities. Examples of 4 possible group assignments appear on the following pages. The teacher will give each group a different assignment, the final products of which will be presented to the rest of the class. This approach should give the students a greater understanding of the impact of computers on society from a variety of sources.

COMPUTERS IN SOCIETY - GROUP ASSIGNMENT

The newspapers are full of articles about new technology. You can usually find major articles about new developments in the first section. There are articles about the impact of computers on people's lives in the People or Lifestyle section. There are even cartoons about computers in the Comics. Magazines are also good sources for articles about computer technology.

☐ Make a collection of articles about computers from newspapers and magazines.
If you find too many articles, restrict yourself to one topic, e.g. Computer Crime. Share your extra articles with your classmates.

Organize your articles in some form of visual display, eg. on Bristol board or on a classroom bulletin board and prepare an explanation for each article.

Be prepared to present your work to the class.

**COMPUTERS IN SOCIETY - GROUP ASSIGNMENT**

1. Interview some workers who use computers regularly in their jobs. You probably have a friend or relative in this situation. Even in your school there are many people who use computers.

2. In your interview, include the following questions:
   - How do you use the computer in your job? What proportion of your time is spent using the computer?
   - How computer literate do you have to be to use the computer for your job?
   - How did you learn to use the computer? Were there any problems switching from manual to computer methods?
   - What are the advantages of the computer?
   - Are there any disadvantages? What are they?
   - How has the computer changed your job?

3. After you have done the interview, write up your findings in the form of a report. Be prepared to present the report to the class.

4. Based on your research, what do you think is the impact of the computer in the workplace? Put this conclusion in your report.

5. If you found the resource person that you interviewed was interesting and informative, ask your teacher if this expert could be invited to come into the class as a guest speaker.

**COMPUTERS IN SOCIETY - GROUP ASSIGNMENT**

There are many jobs in the workplace today that deal with computers.

1. Look in the Classified Ads section of your local newspaper and cut out ten advertisements showing ten different jobs that involve working with computers.

2. For each job, state the following:
   - the job title
   - the job description
   - the qualifications needed
   - the salary
   - the degree of computer literacy that appears to be necessary
   - any other pertinent information.

3. What conclusions can you make about computer careers after examining these advertisements?

4. Put your answers together in the form of a report, placing each clipping next to the summary of the relevant job.

5. Be prepared to present your report to the class and address the following points:
a. Which job is most attractive to you? Why?
b. What steps must you take to prepare yourself for this job?

**COMPUTERS IN SOCIETY - GROUP ASSIGNMENT**

Consider the following items as you prepare a report to discuss the future of our society. Be prepared to present your report to the class.

1. What will communications be like in the future?

2. Discuss the impact that each of the following would have on you and on society:
   - Visual-link telephones
   - Doing all your shopping and banking from your personal computer without having to leave home. How would this affect social relationships?
   - Job opportunities. It has been estimated that as many as one million workers will be displaced by computers in the next few years. Will you need to use a computer in the job you hope to get? What kind of jobs do you think will be created by the computer? What job will be made obsolete by the computer?