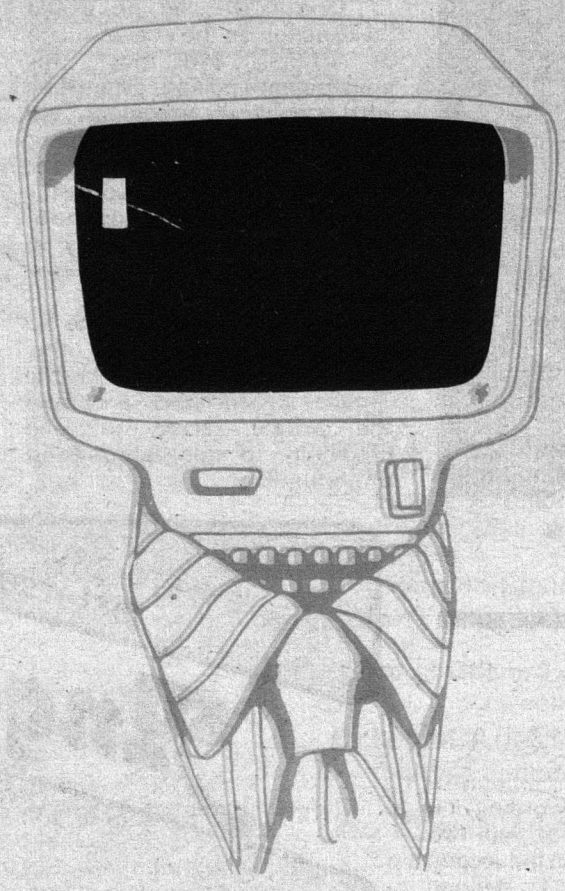
Video display terminals: pro

Feature by Kent Cochrane



Video Display Terminals have proliferated at an amazing rate.

In 1982 there were an estimated nine million VDT's in use in Canada and the United States alone. However, while they have revolutionized data storage, the VDT's have brought a host of problems with them.

The US National Institute for Occupational Safety and Health (NIOSH) conducted a survey in California and received the following complaints from VDT operators: eyestrain, burning eyes, irritated eyes, blurred vision, and change in colour perception.

Other frequent complaints included headaches, back pain, painful or stiff necks and shoulders, swollen muscles or joints, and general fatigue.

Radiation

One of the most serious concerns about VDT use is the misconception that they emit dangerous levels of radiation. Various research groups have concluded that there is no significant risk to VDT operators from radiation. According to the Federal-Provincial Sub-Committee on Radiation Surveillance, "all the scientific evidence supports the conclusion that video-display terminals do not pose a radiation hazard to individuals operating such devices.

This conclusion is shared by health agencies all over the world. NIOSH reports that ultraviolet, visible, and infrared light emissions from VDT's are all well below safety limits.

The Radiation Protection Bureau, of Health and Welfare Canada, tested 150 different VDT models and found no X-ray emission above natural background levels experienced in everyday life. Four birth deformities in Ontario allegedly caused by VDT use were concluded to not have resulted from radiation emitted from terminals.

According to the Radiation Protection Bureau, "there is overwhelming evidence to show that VDT's emit no X-rays at all, and the non-ionizing radiations emitted are well below even the most restrictive standard."

Some doubts remain, however. Gerald Caplan, of the Toronto Department of Public Health, said in a 1981 report that "there remains substantial uncertainty and disagreement on the potential consequences of cumulative, low-level non-ionizing radiation."

A report from the BC Occupational Environment Branch echoes this sentiment: "Concern still exists over the possible long-term effects of low-level radiation from many sources, including VDT's. More research is required in this area to obtain a consensus among the scientific community."

Eye and Vision Problems

As noted earlier, eye problems are very widespread among VDT users. However, current ophthalmologic theory says that eyes are not permanently damaged by close visual work. According to Dr. M.A. Mainster of the Harvard Medical School, there are no lasting effects from eye discomfort and there is no way eyestrain can cause eye damage.

Blurred vision will generally return to normal after a rest period. In any event, the American Optometric Association recommends thorough eye-vision examinations annually for VDT operators.

Fortunately, many eye problems can be corrected through the proper design of the equipment and its office environment.

Levels of glare and of general office and internal machine lighting are the main causes of eye problems for VDT workers.

Reflected glare can be reduced by making sure that windows and other bright light sources do not shine on the screen. The operator should also not sit facing a bright light source but instead his line of sight should be parallel with office windows. Drapes and shades can be used to reduce glare from windows and lamps.

Large background surfaces in the office should be in soft pastels or warm grey, and devoid of point sources of light.

There are substantial differences of opinion over proper levels of overall room lighting. The BC Occupational Environment Branch recommends levels of 500 to 700 lux for continuous work from paper reference materials and 300 to 500 lux foroccasional use of paper materials. The American Optometric Association recommends a level of 300 to 500 lux and the Swedish government recommends 200 lux.

According to Dr. Michael Smith of NIOSH, few (if any) of these recommendations are based on testing and follow-up research. The only general agreement seems to be that overall lighting levels should be considerably lower in an office usin normal office. But a dark office can pr atmosphere, and as Burt Stammerjoh out, "low levels of light are all ri controllers, but pencil and paper ta lead to problems with the tasks."

Thus, some compromise in the required if the VDT operator is usin material. The light must be bright en without reducing screen content.

The reference documents could a small, screened lamp. However, documents should be made from a white, so that the operator does not h adjust his vision from a dark screen

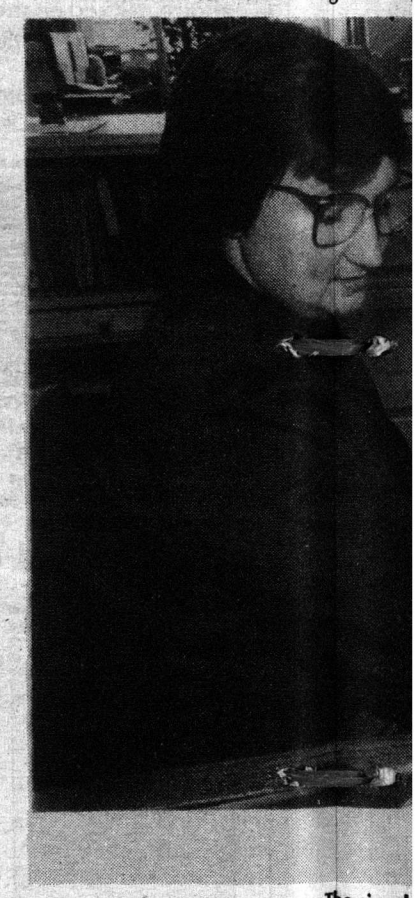
As well, the reference material s close to the screen so that frequent l movements are avoided. The mater placed at the same distance from the

Backaches, neck cramps, shoulder pain and general fatigue can result from poo design of the VDT work static

to avoid frequent cha the eyes. A document holder may a

The face of the screen should b the line of sight. The American Opto recommends that the top of the scr below the operator's straight head s the center of the screen 20 degree considerable disagreement on th distance, however. NIOSH recomm the American Optometric Associatio the Executive Fitness Newsletter 27 greater. Each operator should simpl at which he feels most comfortable.

The American Optometric As characters on the screen should be brighter than the background, and should be adjustable for characte characters should also be large enou



The simpl

viewing. The BC Occupational E says that they should be from 3.1 Grime on the screen and detior tubes may cause character brigh decrease, so screens should regul old parts replaced.

Static from the machine may ca as well. If a lot of static is present, d screen. A Scandinavian study has ap static attracts viruses leadi respiratory problems and skin lesi another study postulate that static the face to vibrate. These vibrati organisms to skim across the face a eye, causing eye infections. A test f hairs on one's arms: if there is exces stand up.

STUDENTS' UNION
THE UNIVERSITY OF ALBERTA

14 March, 1984

On 13 March 1984 at 9:30 p.m. the Speaker of Students' Council received a petition with the signatures of over five hundred students. Although the wording is not correct according to the Students' Union's regulations regarding General Meetings, the intent is clear.

Therefore, in accordance with Article X, Section 2 of the Students' Union Constitution, the Executive Committee, on behalf of Students' Council, has called for a General Meeting of the student body to consider the following motion.

Be it resolved that the Students' Union hold a fair referendum in the month of March, 1984 on membership in the Canadian Federation of Students.

The issue at hand is not the legitimacy of the October referendum as the result was declared legal by the University Disciplinary Panel, but rather, its "fairness."

In order to address this issue, "fair" will be defined as: (1) operating with clear regulations without advantage to any side; (2) being run with all sides being adequately and consciously represented.

This special General Meeting will be held on Wednesday, 21 March 1984 in the Universiade Pavillion.

The doors will open at 12:00 Noon. A count for the purposes of establishing quorum will be taken at 12:30 p.m.

According to Bylaw 600 of the Students' Union Constitution and Bylaws, quorum is one-twentieth (1/20) of Students' Union membership.

We encourage all students to attend this meeting.

Sincerely,
STUDENTS' UNION EXECUTIVE COMMITTEE

Robert Greenhill, President