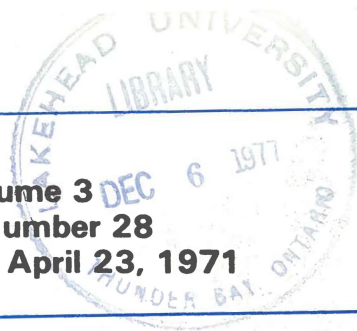


WEEK

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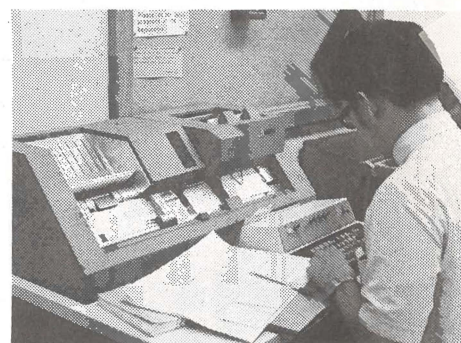
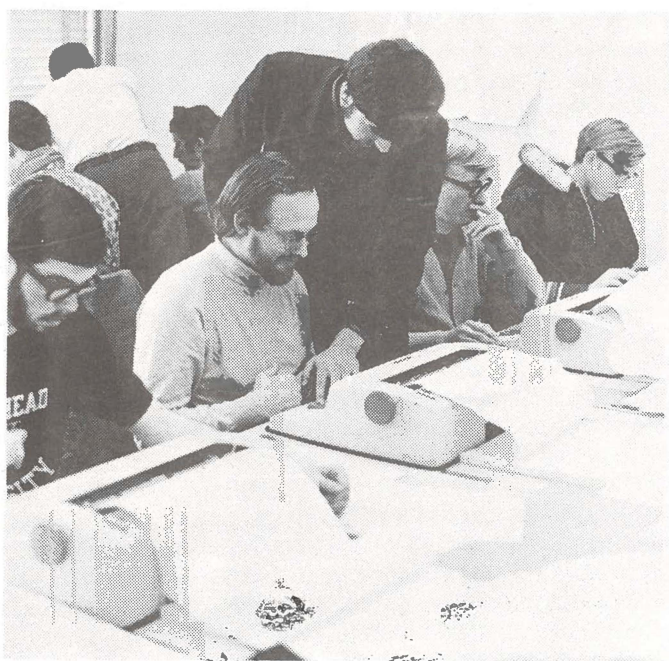


Computer Cut-Ups

Playing *tic tac toe* with a computer puts the individual up against a formidable foe. While the main purpose of the University's IBM/360 Model 50H is not fun and games, anyone who has taken the opportunity to learn how to use the computer has been challenged to a number of matches of *X's and O's* by "the beast".

The computer at Lakehead University serves growing demands as a teaching supplement, resource centre and administration tool. With 17 terminals serving students, faculty and staff, it teaches full courses acts as a course aid, produces maps, and statistical tables, solves problems, organizes data, analyzes information, prepares student records, looks after accounting records and writes paycheques to mention just a few of its capabilities.

It seems natural to assume that students in mathematic courses would find use for the computer, but in fact, any student can use the computer ... program it to meet specific requests and needs. Members of faculty find the computer invaluable in assisting with research work, performing endless calculations with speed and ease and postulating formulae for the solution of highly complicated problems.



Established in 1967, the Computer Centre first operated with an IBM Series 360 Model 40H, the capacity of which was nearly full by late 1969. In April of 1970 the present computer was installed and in September the use of on-line terminals.

With a present staff of 27, the Computer Centre is engaged in supplying the needs of the University, training students, faculty and staff in the use of the computer and its languages, and acquiring programs from outside sources for use at LU. A new cooperative effort amongst the Universities of Ontario was recently instituted by the Computer Co-ordination Sub-Committee of the CPUO. Under this program, universities are beginning to exchange programs and a central clearing house will soon be established to allow all universities in the Province access to a central source of information. Lakehead University is represented on this committee by Mr. W. Bilyk, Department Head in Academic Services. So if you haven't been introduced to our computer, why not drop by the Computer Centre in the Main Building. The excellent staff and the affable computer itself are most willing to help you out in any way they can.



Towards Two Thousand

The following is the final half of the opening chapter of *Towards Two Thousand: Post-Secondary Education for Post-Industrial Ontario*. The study of post-secondary education, completed by the Committee of Presidents of Universities of Ontario subcommittee on research and planning, will be submitted to the Commission on Post Secondary Education in Ontario and published by McClelland and Stewart. This excerpt was prepared by Subcommittee Chairman John Porter, professor, Sociology and Anthropology department.

Despite the fact that he is rationalizing his world through science and technology, man will never be totally rational or wholly intellectual. In fact, in the world of the future we might expect an extension of those patterns of behaviour which we can now see and which are, in effect, a reaction to over-rationalization of life and to impersonal bureaucratic forms of organization. The new culture of science and technology will no doubt impose an efficiency on many areas of life through the application of scientific method to the management of social institutions. Living in a world thus rationalized, people will seek new forms of escape or adaptation in the search for new forms of transcendental experience. These experiences will be sought in a variety of ways: through drugs, through new sexual morality, through withdrawal to isolated and occult communities. Institutions of higher learning may well have to consider developing studies of these phenomena, and to search for ways in which the non-intellectual needs of man can be served. Universities have had their origins in, and until recently have been closely linked to, the traditional religious denominations. While there is not likely to be any great religious revival in the traditional sense, there are likely to be increasing movements in search of new meaning and experience to counter the rationalization of society's major institutions, and, perhaps, to meet a need of one of the dimensions of many-dimensional man. In the world of the future, therefore, higher educational needs will by no means be confined to the production of scientists and technologists.

Although as we have just said the highly trained human resources required in the future will run across all intellectual disciplines, the training of scientists - and here we would include social scientists and managers as their disciplines become increasingly based on mathematics - poses particu-

larly difficult problems for the post-industrial age. As the society and the knowledge upon which it is based become more complex, it becomes more difficult for individuals to assimilate the increased amount of complex knowledge that must be acquired. The possibilities of serious shortages of people who can handle the greater levels of complexity of knowledge are great. Thus there must be a very real talent search through all social levels and groups. This need is a long-term reality which the current furor about unemployed PhD's should not be permitted to mask. But the assimilation of knowledge is difficult and learning is irksome. Hence, able people must be motivated to study, and not be lost as a vital social resource because of environments or circumstances which inhibit their growth. There is no substitute for hard work or for high quality. Universities have always had a great concern for excellence, for developing the very highest of human potential. In whatever system of higher education emerges this quality of excellence should not be downgraded.

For many the notion of excellence has elitist connotations, and hence they believe it contradicts the ideal of equality which has quite rightly become one of the most important criteria by which modern societies are judged. Indeed, educational systems have been severely criticized for streaming practices which give special consideration to those who give early evidence of superior ability, since it is the middle and upper class children whose abilities become most apparent, while lower in the socio-economic scale in sub-cultures less conducive to learning, children cannot so easily demonstrate their abilities. However, it is wrong to make the same kind of judgements about the social effects of sorting out excellence at the level of the higher learning, because it is indisputable that human beings are unequal in terms of the amount of complex knowledge they can assimilate. A system of higher education must assume or at least argue strongly for a system of education at the lower levels which constantly seeks to eliminate, as far as possible, the social effects of poor learning environments. We would visualize for Ontario, a highly pluralistic or differentiated post-secondary system in which many needs and levels of ability would be served, including some degree of open admissions for particularly deprived groups. Within this differentiated system, however, there must somewhere be special concern for excellence and for the education of all the good brains that can be mustered.



We have placed great emphasis on the increased role of science and technology in the post-industrial world. There are important consequences of that development which should be considered by those planning post-secondary education. One of these, for example, is the way the world of work becomes changed by the creation of new occupations and specializations. At the same time sets of older occupations become reorganized while others are destroyed altogether. The professional division of labour is likely to proliferate and to become increasingly hierarchical from the most highly trained specialists at the top of the para-professional workers at the base. Thus new professional and paraprofessional workers will contribute peculiarly specialized tasks to a co-operating work group, while the solo practising professional is likely to disappear because he cannot possibly acquire himself all the complex knowledge and skill that science has made available to him. Professional self-regulation and monopoly will probably be greatly reduced by the public concern for the adequate delivery of professional services such as law, welfare and medicine. Educational requirements, then, will range from the need for the most highly specialized worker whose training culminates in post-graduate research institutes, on the one hand, to the skills of the technologist and technician whose training is most appropriately provided at the polytechnic or college level, on the other. One effect of this hierarchical structure of professional work and education is that people can become cut off from advancement because their training is limited and they are forever labelled as paraprofessionals. The educational processes of the future should be such that they provide for continuity and the acquisition of higher qualifications. All those on professional teams will be linked together by new applications of computer technology in, for example, medical diagnosis, library retrieval and programmed learning.

The last-mentioned of these computer applications reminds us that new technologies are being and will continue even more to be applied to the educational processes. Many who feel overwhelmed at the increasing costs of post-secondary education look to the new technology to make savings. This may or may not prove to be the case, but there are various new approaches that deserve the most careful consideration by educational planners. What must also be considered is the possibility of

improving pedagogical techniques to facilitate the assimilation of knowledge.

Another feature of post-industrialism which educational planners must seriously consider will be the way in which different societies will penetrate and intervene in each other's activities. This will create new needs for trans-national co-operation through new trans-national institutions. It would be possible for any one society to achieve the benefits of the future by becoming absorbed in the more rapid advance of another one - a fate that many Canadians fear as so many of their own institutions become absorbed by or linked with those of the United States, particularly the two most significant carriers of post-industrialism: the modern multinational corporations and the universities. Perhaps there would be nothing wrong with such absorption if the culture of post-industrialism is homogeneous. One sure mechanism for such absorption is to rely on external recruitment of highly qualified people as an alternative to training them at home.

It is possible that in the interpenetrating world of the future the most positive means of preserving national identities will be the continued expansion of educational opportunity because of the crucial role of knowledge in innovative capacity, a quality essential to foster in order to make distinctive national contributions to post-industrialism and so to maintain a national saliency, that is, to appear in the world as a society that does something particularly well. Canada's potential in this respect is partly dependent on the future of national science policy and its effects on research. Outside of the field of science, the development of national culture - in the broad sense of a distinctive way of life as well as distinctive artistic expression - will also depend on the expansion of educational resources. Among the English-speaking provinces Ontario, because of its wealth and its large French-speaking population, should lead in the development of francophone education at all levels as one dimension of the purpose of achieving a national identity through educational activities. These considerations take us well beyond the provinces as parts of Canada and raise questions that must be faced on the future role of the federal government in the financing and planning of post-secondary education.

There are many other aspects of the society of the future which are highly relevant to planning to
over

weekly events

- Wednesday
April 28 Committee For An Independent Canada, with Mr. Mel Hurtig, 8 p.m. U.C.T., FREE
- Thursday
April 29 Engineering Society Stag, Aesthetics Lounge, 8 p.m.
- Friday
April 30 Lecture and Demonstration in Pottery with Mr. Roman Bartkiw, Room MB1021
- Saturday
May 1 Engineering Student Society Wind-Up Party, Faculty Lounge, 8 p.m.

FINAL EXAMINATIONS UNDER
WAY UNTIL MAY 1st

.....continued

post-secondary institutions. For example, students will have had quite different child-rearing and early educational experiences than in the past; the egalitarian ideology will no doubt be more strongly articulated with new demands for higher education as a social right; because they are sources of innovation, because they have great talents at their disposal, universities will be looked to more and more to provide guidance in a rapidly changing world, guidance which includes continuing critical appraisals of the present state of affairs. The institutions of higher learning must free themselves of vested interests in order to strengthen the entire society that sustains them rather than only privileged parts of that society.

Campus Notes:

□ Mr. J. K. Atkinson, of the Department of Languages, delivered a paper on April 3rd. at a Modern Language Conference in Philadelphia, Pa. His paper, "The Predicative Complement in Jean de Meun's translation of the De Consolatio Philosophiae," examined how certain participial constructions entered into the French language via translations from the Latin.

At the end of this Academic Year, Mr. Atkinson will be leaving L.U. to take up a position at the University of Queensland, one of Australia's leading Universities.

□ Applications for Spring Session (Intersession) courses are being accepted now at the Department of Extension Office, Room UC1003. Registration must be made by May 3rd to avoid paying a late registration penalty fee. Course brochures are still available to any interested parties.

meetings

- Wednesday
April 28 Committee For An Independent Canada - Mr. Mel Hurtig, Edmonton Publisher, and member of the Committee will address a public meeting at the U.C.T. 8 p.m., on Wednesday, April 28, 1971. Also on the program will be the film "Count Down Canada", made by York University and shown on the CBC TV Network several months ago. The film featuring Stanley Burke, depicts the imaginary U.S. takeover of Canadian Government. This meeting is Open To The Public, FREE and Everyone is Welcome. University Senate Meeting, 9:30 a.m. Senate Chamber.
- Saturday
May 1

Help!!

If you are a camera enthusiast and have any photographs or slides which are related to University activities, the Information Office is looking for you. We hope to build up a library of photographic material and would appreciate hearing from anyone who might have slides or photographs of University facilities and activities.

