Calls for increased participation in tertiary education, and the likelihood of the Government not providing the funds to match will place an intolerable burden on tertiary institutions in the next decade.

That's the opinion of Dr Trevor Pearcey, Foundation Dean of Chisholm's Faculty of Technology, who believes tele-education could be the solution.

As head of the Tele-Education Working Party set up by the Director, Mr Patrick Leary, in May, Dr Pearcey is investigating a proposal to establish Chisholm as a pilot centre for research into the applications and implications of tele-education in tertiary institutions.

He says signs of the difficulties ahead can be seen in the Commonwealth Tertiary Education Commission (CTEC) guidelines for the next triennium, which support enrolment increases in the whole of the tertiary sector of about two percent per year.

This is further reinforced by the draft proposals contained in the Department of Science and Technology's National Technology Strategy, released in April, which calls for higher business and technology student numbers in particular, but this time at the rate of about eight percent per year.

If this proposal is accepted and implemented, Dr Pearcey says, and the Government refuses to fund at the rate of about 10 percent per year, "something will break."

Over a 10 year period it will mean student numbers will at least double, requiring a corresponding increase in provision for facilities, equipment, capital works and staff numbers to cope with the influx.

"How do we accommodate these students?" Pearcey asks.

His answer is tele-education at a number of levels, aimed at peripheralisation of teaching functions where appropriate, and reducing the amount of time a student spends on campus.

Step one would be the installation of about 100 Telecom connections to a tele tex system linking the campuses.

Since the bulk of students will be from metropolitan areas, the cost of using the system would be the same as a single telephone call.

The system, which sends encoded video signals would be based on a set of frames stored in an on-campus computer, offering an on-campus computer, offering a range of subjects with teaching connections to a tele tex system and the student, and this would be augmented by following video frames by a system of encoded scripted speech to improve understandability, and enable a student to communicate through his keyboard with his tutor using an electronic mail facility on the same system.

Dr Pearcey says his calculations indicate that use of tele-education methods such as tele tex would cut by half the amount of time a student spends on campus.

"If we can reach this objective, the campus itself could handle a total enrolment of between 50 and 100 percent more than at present."

Step two in the development of tele-education at Chisholm would be the setting up of medium band width video conferencing facilities, linking first the two campuses, and later connecting to other centres (possibly as additions to high schools).

"My own experience with tele conferencing is that if the facilities are good, it only takes two to three minutes of a session for members on either end of the link to forget they are not all in the same room talking to each other."

"If these are set up, there is even less need for students to actually present themselves on campus, while still gaining the benefits of interaction."

Dr Pearcey says the introduction of tele-education methods would have the advantages for students of less travelling time to and from campus, as well as 24 hour a day accessibility to educational materials.

For Chisholm, the major advantages lie in cost factors. A 50 percent increase in student numbers over the next five to 10 years would necessitate an increase of about 40 percent in effective recurrent funding (about $10 million).

In contrast to this, Dr Pearcey believes an outlay of $1 million on tele education, which would cover installation of equipment such as tele tex at an additional recurrent cost of about $1 million, development costs for teaching, and running costs, would allow the Institute to handle between 50 and 100 percent more than the number of students it does at present.

Dr Pearcey says he is confident that this can be done.

State Enterprise winners
head for national final

Put together the winning business plan for a new invention, the Optical Data Link, in the State final of the Victorian Enterprise Workshop.

The team will compete against others throughout Australia in a national two day final on 12 November.

The Workshop program, run in Victoria by Chisholm in parallel with Swinburne Institute of Technology, aims to give Australian inventors with the skills necessary to turn their ideas into financial success.

The Optical Data Link (ODL) was invented by Mr Brian Taylor and Mr John Conchihf, owners of Data Plex, a company specialising in local area data distribution for all kinds of computers and terminals.

The invention is designed to transmit computer data over distances of up to 1000 metres via an invisible infra red light beam. Conventional systems, such as those used by Telecom, use cables under the ground.

ODL, the inventors claim, is a far simpler and less expensive alternative.

For the Victorian Enterprise Workshop, Mr Taylor and accountant, Mr Steve Wharton, teamed up with Senior Lecturer in Management, Mr Tim Haislett, in the role of facilitator.

It was a winning combination. A total of seven teams spent five months on the Workshop program, which took participants through the various stages of business skill development, research and analysis of the technical and commercial aspects of the inventions, business plan preparation, and presentation technique.

Staff from all areas of the Institute assisted in the training of the three Chisholm teams which prepared business plans for a Chinese Word Processor (facilitated by accounting lecturer, Mr Bryan Baker), a sophisticated alarm system, 'Checkpoint K100' (facilitated by marketing lecturer, Mr Garry Harris), and the ODL.

Director of the Chisholm program, David Symes Business School Dean, Dr Ken Tuckett, said after the Victorian final that all three Chisholm teams had impressed the judges because of the commercial viability of their plans.

He said this aspect of the preparation had given greater emphasis than before ever. In four years of Workshop programs, only one invention has been a commercial success.

"We considered this a realistic view. If he said this aspect of the preparation had given greater emphasis than ever before. In four years of Workshop programs, only one invention has been a commercial success.

"This point was taken up by the Minister for Industry and Commerce, Senator John Button, in his address to the Workshop presentation dinner on Y9 October.

Picture by Peter Taylor, EDU.

Wendy Franklin with her interpretation of ‘Winter’, one of the four entries which won her the New Idea magazine ‘Craftswoman of the Year’ title.

Final year Graduates Diploma in Art Education student, Wendy Franklin, has won the New Idea magazine ‘Craftswoman of the Year’ award.

Her entry, four pieces of machine embroidery depicting each of the four seasons, has earned her a two-week, all expenses paid trip to England.

Ms Franklin, 26, is a teacher at Seaford Park Primary School.

She completed her teacher training at the then SCV Frankston in 1979.
Satellite link-up signals new era

An unusual national conference held in October, has signalled a new era in communications at Chisholm. Principal lecturer in Communication Studies, Dr Tony Keulemans, and Information and Resources Librarian, Ms Jean Gourlay, took part in a tele conference via the ATS-1 satellite involving representatives from tertiary institutions throughout Australia.

It was the first time a antenna designed by electrical engineering students for reception and transmission to the ATS-1, had been put to the test for tele conferencing purposes. Mr Keulemans says discussions were held with various tertiary institutions in all mainland States. The main focus of the talks, chaired from Darwin, was the educational use for the Australian Communications Satellite System (AUSSAT), to be launched next year.

Both Mr Keulemans and Ms Gourlay are members of Chisholm's Tele-Education Working Party, established in May this year to investigate a proposal to establish the Institute as a pilot centre for research into the applications and implications of tele-education in tertiary institutions.

The satellite, which is the ATS-1 'Kangaroo Network', Mr Keulemans explains, is an ideal way of keeping up to date with developments in the use of telecommunications for educational purposes.

'Now that we have our own earth stations, we can be regular users of the network for tele conferences. Quite a few institutes have their own antenna so we can keep each other informed about any developments and continue discussions about whatever benefits might flow from Australia having its own satellite system next year,' Mr Keulemans says one possibility which has been raised is a cost sharing arrangement between tertiary institutions for available circuit capacity on AUSSAT for educational purposes.

'We are still very much in the exploratory stage, but in the meantime we can keep each other up to date by using ATS-1 free of charge,' said Dr Keulemans.

Chisholm has two antennae, designed by fourth year electrical engineering students, Michael Little and Andrew Edwards, for reception from and transmission to ATS-1.

The satellite was first launched by the US National Aeronautical and Space Administration (NASA) in 1966. It has considerably exceeded its working life expectancy of four-five years.

After NASA had completed its own program of experiments in 1969, ATS-1 was handed over to the PEACESAT project, an educational program first aimed at linking the several campuses of the University of Hawaii, and later bringing Australia, South East Asia, and part of China within range, resulting in the establishment of the Peacesat Australia Kangaroo Network.

The network allows first hand educational experience in the use of communication satellites, and in particular, the use of voice-band channels for broadcasting, remote tele-conferencing, tutorial applications, digital communications applications and tele conferencing.

Mr Keulemans says signal strengths at the recent tele conference were good from most states, although Darwin was 'patchy'.

From Page 1: Tele-education

Chisholm should aim to establish itself as a pilot centre for tele-education within the next five years, 'later to be picked up and supported by the Government as a proven method of teaching technology', Dr Pearey says.

In the long term, 'if this takes off and becomes acceptable, it will become a major research organisation of tertiary education,' Dr Pearey says.

Students could eventually register for a 'smorgasbord of subjects' across institutes, and institutions themselves would need to develop a 'much more co-ordinated attitude', Dr Pearey says moves by Chisholm in this direction would establish it as a leader in the field.

Other tertiary institutions which have worked on the distance education model include the British Open University, Israel's Open University, and Deakin, but neither has explored the use of tele-education as a major teaching method to the degree being proposed by Dr Pearey.

His report is about two-thirds complete. He expects to hand it to Mr Leary by the end of the month.
New system to equip tomorrow's engineer

Pencil and paper will become yesterday's drafting tools for Chisholm engineers, when the link-up of a computer-aided drafting system to the $100,000 MAZAK vertical machining centre is completed next month.

Senior lecturer in mechanical engineering, Mr David Tyler, says he will be able to design and produce a component using the computer as the basic tool.

Mr Tyler spent about five months of this year on Professional Experience Program leave with Engineers Australia's Computer-aided Manufacturing Institute in Clayton, developing the postprocessor to link the computer-aided drafting system to the CNC tool.

The computer-aided drafting software package, valued at upwards of $15,000, was donated by ECS last year.

Mr Tyler's post-processor allows computer-held drawing data to be transferred from an existing Hewlett Packard desk-top computer equipped with a software package, to the CNC machine's computer.

Mr Tyler says Chisholm engineers can now:
- Produce, without using pencil or paper, an engineering drawing.
- In 'plain English', insert machining instructions around the drawing and store it on a disk file in the computer. The postprocessor will 'interrogate' the drawing file and generate machining instructions in a code the machine tool will understand.
- Find that information from the machine's microprocessor.

Engineered by the CNC machining centre is one of the most advanced computer-aided manufacturing (CAM) units available, with the ability to repeatedly cut parts to a high accuracy (it operates to 0.0005 of a millimetre).

Chisholm engineers believe their complete system may be the only one of its kind in Australia.

Currently, four final year mechanical engineering students are working on a computer-aided drafting project on the software package, and as part of their work a short demonstration of the system's capabilities will be presented on Thursday 8 November.

Tighter computer security urged

Computer abuse, the darker side of the information technology revolution, is a growing problem in Australia, and is likely to increase rapidly in future unless more attention is paid to computer security.

That's the message from Chisholm Computer Abuse Research Bureau (CITCARB) executive, and independent computer control consultant, Mr Kevin Fitzgerald, in his report for CITCARB, Computer Related Crime in Australia in 1984.

Mr Fitzgerald's warning is based on the CITCARB casebook, compiled since September 1978, of 123 incidents of computer abuse in Australia, resulting in total losses to industry and government of $5,643,266 from 65 incidents (58 cases were classified as non-assessable).

CITCARB, he says, is more concerned about the potential for future loss than the present evidence of actual loss.

By developing an Australian computer abuse profile, CITCARB aims to arm computer users with the message that many organisations operate at unacceptable levels.

Computer abuse incidents have occurred overseas, some of them quite spectacular, and there is no reason to suspect that they do not occur in Australia.

However, with the high tolerance level given by the business world to this type of crime, there is a low level of knowledge about computer abuse because it is not reported.'

Mr Fitzgerald argues that as computer literacy and proficiency in Australian society increases, so too will always be the opportunity for computer abuse.

Computer abuse thought to be increasing - all white collar crime that they have been detected, managed... who perpetrate these crimes.

These 'probably represent the majority of the under water iceberg' - the part we cannot see, because they are being executed either without detection, or, if they have been detected, management has been too reticent to reveal the abuse.

These 'probably represent the majority of the under water iceberg' - the part we cannot see, because they are being executed either without detection, or, if they have been detected, management has been too reticent to reveal the abuse.

CITCARB's profile also reveals that in all but one of the Australian cases, the perpetrator seemed to be a first-time offender 'motivated by greed and an awareness that the system had holes in its controls, security and auditing systems.'

Mr Fitzgerald comments.

This warning is clear - the opportunities confronting employees to commit white collar crime have never been better, and the current 'it won't happen to me' thinking is simply not good enough in the light of future technological developments.

Mr Fitzgerald says most of the cases so far collected by CITCARB are 'the simple cases' .

"The clever crimes netting huge dollar values are not as frequent as the folklore would have us believe, nor are they likely to be reported if they are discovered..." Mr Fitzgerald explains.

"However, studies of the control and security effectiveness in computer systems in this country reveal embarrassing holes which would certainly enable the mis-guided, mismanaged, or flagrantly criminal to perpetrate these crimes of spectacular proportions.

"If such were the case in a business environment in which audit was given scant resources, then the chance of discovery would be minimal."

CITCARB and the Police Centre are presenting two one-day courses on 14 and 15 November relevant to the computer abuse issue.

What the Computer Manager Should Know About Computer Audit', and 'Computer Related Crime', will be led by Mr Fitzgerald.

The courses are aimed at computer managers, systems designers, internal and external auditors, accountants and business managers.

Consultant to negotiate on theatre works

A consultant has been engaged by a Buildings and Property Committee task force to liaise with the Public Works Department on Health Commission on upgrading works for the George Jenkins Theatre in Frankston campus.

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Green light for Union building

The go ahead been given by Chisholm Council for the student union facilities project at Caulfield campus to proceed to the design stage.

Convener of the Building Project Management Committee (a working party of the Buildings and Property Committee), Mr Paul Ramler, said the decision followed an extensive feasibility study that was started at July 1986.

The two storey building will be in an area of 2297 square metres, and cost $2.8 million.

The working party, renamed the New Building Development Committee, will now investigate in detail the usage of the facilities, which Mr Ramler said, 'must be used to a maximum by students, staff and the community.'

Questions like car parking, which is the initial stage are not a problem, will have to be addressed in the future," Mr Ramler said.

Council backed his recommendations that the Buildings and Property and Finance Committees be authorised to proceed to the design stage on the project.

The remaining works, including installation of a fire curtain and sprinkler system, will require a major financial outlay, and Mr Bilham says it will be the controllability of the project that will make it possible to go ahead.

"There is some area of compromise" with the Health Commission and PWD.

Mr Bilham says the consultant has extensive experience in the area of 'tactical design and equipment.'
Marketing ace at Chisholm

British marketing ace, Professor Gordon Wills, recently paid a flying visit to Chisholm.

From 17-19 September, his busy schedule included a marketing forum, addresses to marketing students (past and present), the Victoria Institute ofwomen's Affairs Group and a senior management briefing.

Professor Wills is Principal of the International Management Centre from Buckingham, UK, a multi-national post-graduate business school.

The school is unorthodox – it has no classrooms and no set curriculum.

Instead, IMCB faculty members go to the client, instructing company managers on marketing problems and solutions.

Teaching and research have taken Professor Wills around the world, including America, Europe and Australasia.

He has a number of books to his credit, and has been editor of the European Journal ofMarketing since 1967.

In 1981 he was jointly responsible for the establishment of the University of Queensland Business School.

Wanted – talented women

The State Government’s Office of Women’s Affairs is seeking women interested in serving on government boards and committees.

Mary Draper, Co-ordinator of Women’s Affairs, says the Office is expanding its ‘Talent Bank’, a register used by Ministers, Departmental Heads and Authorities as a source of nominations for Government boards, committees and committees.

Expansion and updating of the register is needed to help meet the Government’s objective of having more equitable representation of women on advisory bodies.

Interested women should contact Ms Draper at the Office of Women’s Affairs, Department of the Premier and Cabinet, Clarendon Place, Melbourne, 3002, phone 651 1500, or they can pick up a curriculum vitae form and registration form from the Staff Branch at Caulfield campus.

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For further information, contact Jenny Bowman on 224 3333.

SUMMER SCHOOL OF ART
At Gippsland Institute of Advanced Education., 21 – 23 January 1985

For people aged 16 – 20 years, the program includes skills acquisition classes, intensive drama workshops, discussion sessions.

Experienced tutors in theatre arts will lead participants through sessions on acting and performance techniques, voice production, dance, mime and design.

Enrolments close 14 December.

For more information, telephone 051:220 225.

CADECE
Chisholm Staff Club presents, from 11 November, ‘Facade’, an entertainment with poems by Edith Sitwell, and music by William Walton.

Doors open at 11am, and the concert starts at 11.30 am. Lunch is included in the price of the ticket.

For ticket information and inquiries, telephone 573 2133.

Scholarships

For more information about any grants/scholarships/fellowships, contact the Development Director, Dr Bill Briggs, extension 2111 (Caulfield campus).

BRIEFLY

Welfare seminar

The role of police and welfare workers in the criminal justice system was the focus of a seminar at Chisholm Caulfield on 18 October.

About 30 students attended the seminar, organised jointly by the School of Social and Behavioural Studies’ Welfare and Police Studies sections.

Senior lecturer in Police Studies, Mr Jim Reilly, says the major emphasis of the discussion was on prevention of juvenile crime, and the different perspectives of policing, police and welfare workers to the problem.

The discussion revealed the perception by police that welfare workers are ‘over solicitous’ towards the offender, and that police believe society in general has little concern for the victim.

There was general agreement amongst both groups that in trying to learn more about what works in crime prevention, it is necessary to abandon ideological preconceptions about what works.

‘This can only come about by a more positive approach to eliminate misconceived prejudices by each group towards the other,’ Mr Reilly said.

The causes of juvenile delinquency provoked animated discussion at the seminar, which Mr Reilly said, concluded that ‘at best all we can do is to seek marginal improvements that can only be discovered through trial and error accompanied by some hard-headed and objective evaluation’.

Library loss

The Library staff were saddened to hear of the death of Joan Rae on Friday 19 October. Joan died in the Peter MacCallum Hospital after a long illness.

Joan joined the library in 1978 as Inter-Library Loans Officer and then served as the Library Resources Librarian for the School of Art and Design.

Many staff at Chisholm will remember Joan for her generous spirit and for the forthright and courageous way she faced her illness. We will all miss her.

Olive Cousins,

Acting Institute Librarian.

Asbestos removed

Asbestos insulation has been stripped from pipes in three Frankston campus plant rooms.

At its September meeting, the Buildings and Property Committee gave the go ahead to the works, to cost an estimated $10,000.

Safety Officer, Mr Alex Glennie, says the decision to remove the asbestos was made because much of it was in need of extensive repairs, which in any case ‘would have cost more than the amount we spent in having it removed’.

The work was carried out in boiler rooms in B Building, the Halls of Residence and Struan House.

Mr Glennie says the only remaining asbestos at the campus is around the boilers themselves but this does not represent a health hazard.

Citizen awards

Nominations are being sought by Caulfield City Council for the ‘Citizen of the Year’ and ‘Young Citizen of the Year’ awards.

They are open to citizens who have made outstanding contributions by Caulfield citizens to the welfare of the local community.

They will be presented at the Council’s traditional Australia Day champagne breakfast at ‘The City Hall, Fri 25 January.’

Nominations should be forwarded to the Mayoral Secretary by Wednesday 12 December.

Trophy win

Chisholm engineering students have been awarded a prestigious Institution of Engineers ‘Sporting Challenge Cup’.

The annual event, run in conjunction with universities and CAsE, was hosted by Chisholm in August, and was won by a team comprising Fields of cost an estimated...

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