The assumption that study and research in Information Technology and Communication is simply a matter of perpetually training technocrats is the misconception that newly-promoted Professor Joan Cooper is keen to dispel.

The Head of the Department of Information Technology and Communication, Professor Cooper has attained Professorial level at an unparalleled time of change and development in a field which is also impacting on our lives and times.

What is taking place in information technology and communication is already having a significant impact on all elements of society.

'It's a very exciting field and a rapidly developing area,' Professor Cooper said.

Professor Cooper brings 20 years experience and expertise to the position.

This appointment is believed to be the first time in Australia a woman has held such a senior academic position in this field.

Professor Cooper's promotion comes when considerable government initiatives and corporate strategies regarding the much vaunted but poorly understood 'information superhighway' are being announced in relation to the arts, the media, industry incentives and trade.

'Keeping abreast of the technology requires a lot of work,' she said.

'We are constantly upgrading our teaching by being aware of the latest information about social, economic, management and regulatory issues in relation to information technology.'

Professor Cooper, although an advocate of the development and dissemination of new technologies, is concerned about the procedures and processes that accompany them.

She said: 'There is no common definition of the information superhighway. There needs to be an awareness of its potential hazards as well as of its advantages and benefits. Lots of issues need to be looked at.'

The particular area she concentrates on is health informatics and how this could improve the efficiency of the health care system.

'This also raises the issue of confidentiality and who should have access to such sensitive information,' Professor Cooper said.

'What are the procedures for protecting and transferring patients' medical histories in the area of telemedicine?' 

Continued page two
Research and development agreement with Nationwide Rubber, Nowra

Nowra-based Nationwide Rubber Enterprises Pty Limited, the Illawarra Technology Corporation and the University of Wollongong have established a joint research and development advisory committee.

Nationwide Rubber Enterprises has been supplying rubber hoses to international car manufacturers, Toyota, Mitsubishi, GMH, Ford and SAAB, for more than 10 years and won the 1993 General Motors' worldwide award for Quality Service and Price – the only hose manufacturer from 30,000 GMH suppliers to receive the award.

Executive Director of Nationwide Rubber, Mr Barry Clissold, said the company was keen to maintain and enhance its international standing and ensure it adopted the most modern, cost effective technologies as they became available.

‘However it is difficult as a small, specialist manufacturer to establish an extensive research and development capability of our own,’ he said.

‘We are delighted that we can now use the wide range of expertise available locally at the Illawarra Technology Corporation and the University of Wollongong, rather than having to go wider afield or off shore.’

The University of Wollongong and its commercial company, the Illawarra Technology Corporation (ITC) can assist Nationwide rubber with the identification and definition of manufacturing variations and help identify cost effective solutions.

ITC is skilled in the design, development and integration of innovative automation systems.

A memorandum of understanding was signed in the Nowra premises of Nationwide Rubber. The first meeting of the Research and Development Advisory Committee followed.

Joan Cooper – new Info Technology professor

From page one

'It is important that we provide the research to undertake technological management so that sufficient security procedures for protecting information data such as this can be implemented.'

Citing the controversy which surrounded the proposed Australia Card in 1987, Professor Cooper said: ‘Australians are very concerned with their privacy and the impact of this concern is still carried over in new technological developments.’

The Department of Information Technology and Communication is also introducing new technology to the next generation through its Spring School, the inaugural one having been held earlier this month for Year 11 secondary school students.

'The whole field is as exciting as it is complicated,' Professor Cooper said.

'Ve try to instil our students with an awareness and a multi-disciplinary education that is far broader than training for technocracy.

'We try to teach our students about what impact all this technology is having on our society.’

During their courses, students in Information Technology and Communication survey an increasingly complex array of social, economic, legal, political and cultural issues that are intertwined with their discipline.

Staff and students in the department conduct research into several vital and current issues, such as the management and security of online databases, electronic data interchange (EDI), distance education and technology, telecommunications policy and the development of 'smart cards'.

Discourse about the equity of access to information technology, the need for safeguards to minimise the hazards and the unwarranted intrusions into the lives of individuals or organisations are very much on the department’s agenda.
A comprehensive assessment of a bushland area behind Building 29 has resulted in the Landscape Section of the Buildings and Grounds Department being awarded a grant to undertake bush regeneration on campus.

In the past, the area has been altered with a road, bridge and drainage that have led to erosion, while mismanagement combined with a lack of knowledge of water courses has led to the necessity for regeneration.

An encouraging start is the already present 40-50 year-old regrowth, a range of cedar trees and a turpentine tree that possibly dates back at least 300 years.

Awarded by the Environmental Restoration and Rehabilitation Trust, the grant aims to conserve remnant bushland, promote it as an educational and recreational resource, and encourage the wider community to be involved in its conservation.

Managers of the Regeneration of Coastal Plain RF Pocket project, landscape supervisor Martin Bramston and horticulturalist Warwick Grace, hope the project will provide a catalyst for future bush regeneration on University property and restoration of the water dragon habitat.

Evaluation of the project outcomes will be through feedback and interest generated from university staff, students and local community, by increase in volunteer numbers and natural regeneration of site.

The environmental significance of the site is that the University of Wollongong has approximately 20 hectares of bushland.

Environmental issues being addressed are restoration of the water dragon habitat, bush regeneration of a two-hectare site on the University containing rainforest remnants which are now rare on the coastal plain and the revegetation of greatly disturbed areas on its peripheries.

This area, although small, contains several important plant species including native plants of Sydney and those that are uncommon to the southern coastal region.

The project process involves hand removal, mulching and spraying of woody weeds, non-endemic grass and herbaceous weeds, planting of endemic plant species grown by the University Landscaping Nursery in areas of revegetation, hand delivery of literature to the community, and participation in University Open Days and Orientation days to promote work undertaken.

Mr Grace said: ‘Since November 1993, we have moved more than 200 bins of weeds, and pulled and cut and painted our way through a fair bit of lantana and Crofton weed.

More than 600 species have been planted with the assistance of some third year nurses who participated in the Nurses Planting Day, but our long-term ambition is to get the community involved in the project.

‘We are trying to control an erosion site by tree planting, although the drought is having an effect on the new seedlings.

‘The creek has more than 80 species of local plants and there are several uncommon plants to the area.

‘It’s a small bit of remnant bush which will survive and is helpful to record the past. To us it’s a small treasure trove of yesterday.’

Community groups involved in the development and planning of the project include the University Environmental Society with four volunteers working up to four hours per week assisting the regenerators in all tasks on the working site and educational activities.

They include Gaby Leahy a third year Environmental Science student, Tanya George who has just completed her Bachelor of Science degree and Garry Scott.

Other participants include Anders Bofeldt, Technical Officer for the Wollongong Botanic Gardens and a local botanist who gave his time voluntarily.

The project forms part of the Keira Green Corridor, an initiative of Wollongong City Council to help create green corridors along its coast.

Wollongong University is very much a part of this corridor.

Current and potential users of the site include other university departments such as biology, geography and environmental science with the aim of encouraging student involvement.
Australasian Universities Power Engineering Conference (AUPEC'94), was held this year at the University of South Australia in September.

The Power Group in the Department of Electrical and Computer Engineering had 11 papers accepted. These papers covered topics such as improved motor control for automation applications, waveform pollution caused by power electronic equipment, circuits giving improved motor efficiency by allowing regenerative braking, low loss motors, and artificial intelligence means of predicting power system loading.

A paper was also presented in the education session outlining the resources developed for the Department's computer-aided power systems course.

This year's conference is the fourth in the series, earlier ones being held at Monash, QUT and Wollongong.

These conferences are organised by the Australasian Committee of Power Engineers (ACPE), an organisation consisting of Australia's power engineering academics.

This year Associate Professor Vic Gosbell, from the Department of Electrical and Computer Engineering, was elected Chairman of ACPE for the next three years.

Volunteer enrolment officers are needed to help 1995's commencing students.

The volunteers will help improve the quality of service to students and the image created at this first crucial point of contact.

The area most needing assistance is at the beginning, when students are handed their enrolment forms and other paperwork and left to fill it out as best they can.

While casuals and full-time staff are rostered on each day, new students need that warm individual greeting and 'how may we help you' approach—there simply aren't enough people/resources to go around.

Sue Fletcher, in Academic and Student Services, said 'I would like to see groups of students given an opening address, clear unhurried instructions about what they need to do, and help if they ask for it in filling out their forms.

'Much of this information is sent to students with their letter of offer, and academic information is sent with the Dean's welcome letter, but many students either do not or cannot absorb it in the short time they have available to them.

'A training session will be provided in mid to late January, and it would clearly work best if staff who volunteer are available for at least several of the seven days involved, or perhaps mornings, or afternoons. 'The work is exhausting but very satisfying, and would give staff a chance to see just how enrolment works.'

Contact Ms Fletcher by email before 30 November if you are interested, giving the dates/times you would be available. (Your supervisor would need to approve any commitment you make).

**IMPORTANT DATES:**

**Information Night:** Thursday January 12 4-8pm. All faculties.

**Enrolment 1995**

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**Enrolment days and dates**

**Tuesday 31 January:** Bachelor of Arts (Health Science), Biotechnology, Environmental Science, Science (all degrees), Science/Arts (STS), Medicinal Chemistry, Medical Physics.

**Wednesday 1 February:** Bachelor of Computer Science, Engineering (Electrical, Computer, Telecommunications), Information Technology and Communication, Nursing (all degrees), Mathematics (all degrees), Mathematics-Computer Science.

**Thursday 2 February:** Diploma in Computer Applications, Bachelor of Arts-Commerce (Japanese). Commerce

**Friday 3 February:** Bachelor of Arts-Engineering, Education/Teaching (all degrees), Engineering (Civil, Environmental, Materials, Mechanical, Mining, Technology).

**Monday 6 February:** Bachelor of Arts (other than Health Science), Arts (Japanese), Creative Arts, Law (all degrees).

**Final round/Late Enrolment /All Faculties:** Monday February 20

International students, including Study Abroad and Exchange, will enrol on Tuesday February 21 with their welcome and briefing on Monday February 20.

**Orientation:** 22-24 February.

**Autumn Session begins:** Monday 27 February.
Matthew Bradley, an Honours student studying personal development in Health and Physical Education, has been selected as a member of the Australian youth contingent for the prestigious 1995 Ship for World Youth project.

This major international goodwill project was implemented by the Japanese Youth Affairs Management and Coordination Agency in 1989 with the aim of providing an opportunity of exchange and understanding for young people from Japan and overseas.

Mr Bradley was one of 40 young Australian applicants invited to attend a rigorous weekend of interviews at Griffith University in Brisbane in late September.

Applicants were required to demonstrate their suitability based on a history of voluntary, community and professional involvement with youth, their ability to act as cultural ambassadors for Australia, and their general confidence and communication skills.

He then had to make a prompt return to Wollongong to join the soccer team which won the competition at the Australian Universities Games.

His interest in the Ship for World Youth venture came about through the University’s International Office.

Mr Bradley said: ‘I studied in the US as an exchange student at the University of California (Davis) in 1991, and I asked Trish Tindall at the International Office to keep me posted on any interesting activities that came to her attention.’

When Mr Bradley was invited to the selection interviews, he also approached the Faculty of Education for support and assistance.

‘My thesis supervisor, John Patterson (Dean of the Faculty) and the whole faculty supported my application, and are helping with expenses and gifts that will be needed during the cruise.’

Mr Bradley is one of 19 Australian youth members and one national team leader who will be among 300 youths from around the world who will meet in Japan in January.

After a fortnight of familiarisation, being billeted with Japanese families and a hectic round of civic, diplomatic and social activities in and around Tokyo, these 300 youths will board the Nippon Maru for a three-month journey around the Pacific Rim.

The Ship for World Youth will visit Hawaii, mainland USA, Central and South America, Polynesia, Melanesia and Australia for an ambitious round of youth exchanges and international presentations.

Mr Bradley said: ‘The Japanese Government takes this event very seriously, and our schedule includes an Imperial audience in Tokyo and high-level meetings with political and civic leaders in various countries along the way.’

Next May, Martin Parmenter and Bree Magick will head off to the Solomon Islands for three months for the challenge of a lifetime.

Both have been selected by Youth Challenge Australia to join a group of 70 youths from Australia, Canada and the Solomon Islands who will focus their energies towards carrying out community development projects.

Mr Parmenter and Ms Magick are both students of the University.

Mr Parmenter is studying towards a Masters Degree in Environmental Science, while Ms Magick is undertaking studies towards a Bachelor’s Degree in Science.

They each face four main challenges. The first, which they have already accomplished, is to be selected.

They are two of 30 ‘Challengers’ who have been selected from all over Australia.

The selection process included a two-day field test during which each candidate’s ability to analyse problems and implement solutions in a cooperative and commonsense manner is evaluated along with group skills.

The second challenge is the preparation. Both must actively participate in the project preparation by assisting in the procurement of the necessary equipment and by personally raising $4200 in funds prior to leaving.

The third challenge is the project itself. Some of the projects that Mr Parmenter and Ms Magick could be involved in include; malaria awareness education; water supply and sanitation; environmental research; and primary health care.

On returning home, Mr Parmenter and Ms Magick will face their final challenge – to transform their personal experiences into positive civic and social action by undertaking 130 hours of community service work.

Mr Parmenter and Ms Magick are both looking forward to the challenges and changes this project will bring to bear on their lives.

Mr Parmenter said: ‘I believe that this is an ideal opportunity for me to make use of the knowledge and experience that I have gained in helping those who may not have been as fortunate as I have been.’

Ms Magick said: ‘I think its going to be great! A once in a lifetime experience.’

Youth Challenge Australia (YCA) is a non-profit, charitable organisation based at the University of Technology, Sydney. YCA’s mission statement is ‘to promote young people’s active, responsible and continuing participation in local and global development’.

In addition to projects in the Solomon Islands YCA also runs projects in Guyana and Costa Rica.

Anyone wishing to find out more about YCA or anyone who may be able to assist Mr Parmenter and Ms Magick in their fund-raising efforts can contact Mr Parmenter on (02) 795 5239 (work) or (042) 612 249 (home); or Ms Magick on (042) 259 848.

Science students selected for Youth Challenge project

WOLLONGONG STUDENTS EXCEL

Education Honours student selected for 1995 Ship for World Youth Program
Three postgraduate students from the University of Wollongong won Travel Awards to the 1994 ANZAAS conference in Geelong, Victoria.

The students were selected in an Australia-wide competition to attend the September meeting of the Australian and New Zealand Association for the Advancement of Science.

Hosted by Deakin University, the theme of this year's conference was Science in the Community.

There were a variety of talks, mainly from CSIRO Science of Division, on where Australian science and technology will be by the year 2020.

Topics ranged from mining resources, environmental and farming issues, fisheries, information technology and telecommunications, biotechnology, the food industry and climate change.

Special workshops were held on education, adolescent health and science communicating.

Three thousand people used to attend ANZAAS meetings 10 years ago. Now the numbers are down to under 300.

In an attempt to rejuvenate the Association, and to gain a fresh viewpoint, the organisers offered competitive travel scholarships to 25 postgraduate students from a variety of universities around Australia.

Award winners from the University of Wollongong were Ted Dunstone from the Department of Computer Science, and Sue Murray-Jones and Ian van Tets from the Department of Biological Sciences.

The students' role was to attend the main sessions where various speakers, mainly from CSIRO, took the perspective of looking back from the year 2020 and commenting on the state of their division and the choices they had to make to get there.

Then the students formed small groups to discuss the key opportunities that were mentioned.

'Some of the advances projected were very exciting, such as a carbon fibre aircraft that will cut the travel time to the US to three-and-a-half hours; molecular mining technology; freedom from genetic disorders; or a tiny personal communications device that will function as a phone, fax, email, computer link and geographic position finder,' Ms Murray-Jones said.

'However the speakers all tended to be very optimistic, skating lightly over some of the obstacles that would need to be overcome or watched for.

'The most interesting part of our job was to dissect their talks and come up with a definite statement of what we felt the policy makers should be actively pursuing and funding, and the associated threats involved in taking such a course of action.

'We were then given the opportunity to appear at press conferences and talk to the media.'

Mr Dunstone said the exercise was 'valuable - if exhausting'.

'The topics that we had to comment on were extremely broad, but so was the mix of knowledge bases that the group of students covered,' he said.

'The shortage of time to fully discuss the day's talks before getting a media brief together was frustrating but stimulating.'

'Mr Dunstone enjoyed the privilege of being interviewed by Robin Williams of Radio National's The Science Show.'

For Mr van Tets, the biggest benefit came from meeting and working with other postgraduates from such a wide range of different disciplines and very diverse backgrounds.

'The free exchange of ideas and information that we experienced have given me some new approaches to my own work that will be very useful,' he said.

'Ms Murray-Jones said that one area highlighted by the conference was the lack of regard for science in Australia.

'For instance, some 10 percent of our population are functionally illiterate, but very few people will admit to not being able to read or write, regarding it as deeply embarrassing,' she said.

'Even more people are completely ignorant about science and technology, but their attitude to this problem is quite different.

'Someone saying 'I can't add up' is regarded as being funny. It's not.'

'Don Williams of the Australian Science and Technology Council made the point that studies overseas indicate that a primary cause of unemployment is an inability to adapt to technological change.

'Much of Australia's future growth will rely on our scientific and technological expertise. At present, science is regarded as a poor career choice, and we need to change that.'

In recognition of this need, an Australian Science Communicators group (ASC) has been set up, launching itself at the ANZAAS meeting.

The feedback received from the organisers was that the input from the students was very rewarding and certainly exceeded initial expectations.

'Apart from anything else, conferences are about contacts, and we all came away feeling that we'd enjoyed ourselves, made new friends, and most importantly contributed in a small way to the shape of Australia in 2020,' Mr Dunstone said.

'Mr Dunstone is working on neural network theory. Ms Murray-Jones on the genetics and ecology of shellfish and Mr van Tets on nutrition in pygmy possums.'
Creative Arts students reap the benefits

The late William Fletcher was renowned for his fine paintings of Australian wildflowers.

To promote his work, to assist the development and advancement of young talented artists in need and to further the cause of art education in NSW, the William Fletcher Trust Fund was established.

Since 1987, the trust has provided grants to talented students of painting, drawing or printmaking who are in need of financial assistance to continue their studies in art.

This year, three Visual Arts students from the University of Wollongong’s Faculty of Creative Arts obtained grants – Robyn Douglass, Diana Parker and Aileen Lean.

Chair of the William Fletcher Trust, Mr Ken Tribe, who presented the grants, said: ‘It gives me pleasure this year to present grants to the first students from Wollongong.

‘We have expanded the trust beyond three campuses to five.

‘Other universities whose students may benefit from the trust include Southern Cross, UNSW, Newcastle, Sydney and Western Sydney. Further expansion of recipient institutions is hoped to be installed next year.

‘To qualify, students must show ability and evidence of their talents, combined with a real need. The selection process is extensive and I have great confidence in the talent of these recipients.’

Presenting the Phillip Larkin (prize for poetry) to Lucy Alexander, Dr Brian Gillett noted that the Faculty of Creative Arts has had a remarkable development in a short period of time, matching university development step-for-step.

‘It has added a dimension of life to the University that we can all appreciate and these achievements are a result of the work and vision of dedicated staff.’

Donated by an anonymous Wollongong solicitor, the Phillip Larkin prize is awarded annually to a student in the creative writing strand for the best piece of verse.
2 November: Russell McLelland and Brown Public Lecture, 5.30-7.30pm, Keira View Building, Lecture Theatre 67.104, Level 1. Topic: Alternative Dispute Settling Procedures. Speaker: Professor Neil Gold (Russell McLelland and Brown Visiting Professorial Fellow). Professor Gold is a teacher, trainer and author who has worked as an academic administrator, member of teaching staff and consultant in North and South America, Europe, Africa, Asia and Australasia. He was among the first in Canada to teach mediation, negotiation and counselling skills to law students and lawyers. He lectures and conducts training programs in the field and will speak on Mediation and Mini-Trials at the International Bar Association Conference this month.

14-18 November: The Centre for Natural Resources Law and Policy is conducting a five-day intensive residential short course on Land Management and Nature Conservation Law and Policy as part of its postgraduate program in Natural Resources Law. Inquiries: Ms Maria Agnew in the Faculty of Law: Phone (042) 214 635 or Fax (042) 213 188.

Human Research Ethics Committee
Agenda Deadline Dates: 9 November

Considering Development Leave?

Are you a member of the General Staff who is interested in an opportunity to gain new experience and skills by way of a carefully planned and individually tailored program of activities?

If so, then you may be interested in submitting an application for Development Leave in 1995.

Development Leave aims to provide employees with the type of experience not available in the workplace, to facilitate work contributions and to provide opportunities for the generation of new ideas.

Development Leave may be used for attending conferences or workshops, or to undertake brief visits to other institutions or organisations. Leave and assistance grants of up to $3000 are also available.

The Development Leave policy and guidelines are available on the Public Information File Server under General Staff.

Inquiries: Irene Burgess, Senior Personnel Officer, ext. 3278.

Applications close 9 December.

The Art of Lunch

A series of one-hour performances in the Music Auditorium (University Building 24.G01) on Thursdays at 12.30 during session. Admission: Free

IMB roadshow on campus

The Illawarra Mutual Building Society held functions around the state in this month to announce the results for 1994.

To mark the opening of their campus branch, one of these functions was held at the University. Several representatives from the University attended.

Chief Executive, Mr Peter Jack said: ‘1994 was a good year for IMB, although not all results were as good as we would like or planned. So we are far from complacent. ‘Nevertheless we did reach a significant milestone in that total assets reached the $1 billion mark.

‘And for those of you who remember the Martin Report, A Pocket Full of Change, and wonder whether we will accept the recommendation therein that building societies with assets of $1 billion or more should convert to banks, let me assure you that we have no plans to move in that direction in the near future.

‘We opened three new branches during the year, one being at Wollongong University and we also opened a very successful loans centre on the Queensland Gold Coast.

‘Total Loans approved during the year to 30 June were $370 million, up 45 per cent on the previous year. Once again another record.

‘IMB is a mutual organisation. We have around a quarter of a million members. We look forward to welcoming you to one of our branches – new or old – soon.’