FEATURE: FACULTY OF ECONOMICS AND COMMERCE

It has been said that money makes the world go ‘round.

In the past, the term money described, to some, an actual object in space, a type of semi-static commodity in which everyone could trade.

For many people the concept of money has expanded. For them it now encompasses credit cards, currency exchange rates, electronic funds transfers, share values, interest rates and a plethora of other factors, influences and principles, colloquially described as ‘the world of finance’.

In the minds of some, the concept of money has become dynamic, it has become a living state of interactions, of responses and stimuli from continually changing sources.

Organisations too are looking more closely at what affects this dynamic commodity and ways in which they as a group can reorganise, can reorient themselves to better influence its behaviour. Many see their future beyond their own backyard. Many are exchanging the warmth of complacency for the heat of the international commercial furnace.

Our political leaders have extolled the virtues of ‘the level playing field’. They are shrinking Australia’s artificial barriers to trade. They are pulling down, brick by brick, the protective castle walls which encircled Australia. Our country is being exposed to the seeming chaos of international trade.

Many have expressed the view that our economic future as a nation depends on how well we read this seeming chaos that is the world of global trade, how well we can predict and respond to these interactions.

The existence of these views is not new to those who analyse the world of business. They are perceptions which have long been apparent to those studying in the fields of economics and commerce.

It is to them that we turn; to explain, to suggest, to determine the complexities of our financial dealings with the world; to take our minds from the shiny silver coin to the intangible ebs and flows of international dealings; to establish the yardstick for competition and equip us with the ideas and tools to respond.

What follows in this edition of Van Gogh’s Ear then, is a snapshot of the issues which they confront, a microtone thin slice of the living breathing organism that is economics and commerce.

CONVOCATION INAUGURAL LECTURE

On Thursday September 15, in the Medical Sciences Lecture Theatre (K202) at 5.30pm, Professor Harold Tarrant will deliver his Inaugural Lecture.

Learning Late: Prejudice and the Mature Age Student in Antiquity

Professor Tarrant will mark his appointment to a Chair in Classics with a lecture describing the ancient attitudes toward the mature age student, the majority of which were derogatory. Socrates, for example, had to contend with considerable pressures not to continue his quest for knowledge.

All interested staff, students and community members are invited to attend. Refreshments will follow the lecture.

RSVP to Ms Kim Britton, before Monday September 12, telephone (049) 216459.

Cover Concept: Professor Frank Clarke, Dean, Faculty of Economics and Commerce.

Acknowledged sources are:

THE ECONOMICS OF AN EDUCATION

By Professor Frank Clarke, Professor of Accounting and Dean, Faculty of Economics & Commerce

"I don't know," said Soames. "We are here to decide policy according to common sense, and we must have the fullest opportunity of exercising it. This is my point. We have not enough information."

The White Monkey, Ch.7, The Forsyte Chronicles (John Galsworthy)

Everybody has association with the separate disciplines which comprise the focus of economics and commerce. Invariably, our earliest human endeavours experience the conflict between wants and means, the necessity to devise mechanisms by which to regulate the matching of wants and needs with the available resources to meet them. Everybody is engaged in the discipline of economics and commerce daily. Sustained enquirer into the interconnectedness of the main core elements of commerce are pursued through the four Departments which comprise the Faculty of Economics and Commerce - the Departments of Commerce, Economics, Management, and Statistics.

It is curious that we all engage in commerce and business activity daily, yet so few understand in a disciplined way what, commercially, is going on. Undoubtedly, one of the problems which frustrates a lay understanding of business activity is the manner in which the interconnectedness of its facets is masked by the one-off way in which day-to-day commerce is manifest.

Paradoxically, what are encountered as singular events (buying, selling, saving, borrowing, investing, disinvesting, being employed, becoming unemployed, migrating, emigrating, and the like) are inextricably linked, part of an organic system in which a change in one variable will invariably result in a change in one or more of the others. A considerable part of the research activity in the Faculty of Economics and Commerce is directed toward discovering those links, simulating the potential linked reactions and modelling various formats of them.

By virtue of the familiarity the lay community has with many of the broad subject areas, Economics and Commerce experiences a considerable disadvantage - the lay familiarity breeds contempt with the subject matter per se, and the rich heritage of sustained thought and enquiry which underlies a disciplined understanding of economic phenomena is generally unknown. It seems as if the job-wise consider their undisciplined views on how the economy should be run, how corporate governance should be achieved, how small and large businesses should be managed, how industrial relations should be structured, how Australia's goods and services should be marketed nationally and internationally, what taxation regime would best resolve the dilemmas endemic in public finance, are technically correct.

It is not unreasonable to lay a large measure of the blame for the muddled economic outcomes experienced world-wide in the recent past, on the well meaning efforts of the amateur practitioners of economics. Their rhetoric has not been matched by their technical understanding and competence. It is equally reasonable to lay a large measure of the blame for the epidemic of corporate collapses on the undisciplined approach to managing corporate affairs of the managers without formal education in the matters for which they have been made responsible. Much the same can be said of the failure of the regulatory agencies responsible for achieving orderly financial markets and efficient labour markets.

Sustained enquirer into those facets of human commercial intercourse are the focus of the activities of the Faculty and the courses in accounting, economics, finance, human resource management, industrial relations, information systems, marketing, statistics, and taxation. The objective is to produce graduates who have the necessary skills to be effective and be movers and shakers in their respective professional areas, who have an understanding and appreciation of the current research in their specialisation and the capacity to contribute to the enhancement of public understanding of matters economic.
CONTINUOUS IMPROVEMENT – CHANGING THE BUSINESS WORLD

By Ray Chappell, Minister for Small Business, Minister for Regional Development

One of the reasons that Australian Defence Industries selected the Hunter as a suitable place to build six minehunters for the Navy was the region’s enviable reputation as a powerhouse of innovative and internationally competitive manufacturing and engineering firms.

This improved image of the Hunter has not been achieved by luck but by good management - by creative and energetic business leaders supported by government and community organisations.

The recent report by McKinsey and Company for the Department of Housing and Regional Development, Lead Local, Compete Global, explored the role of government in regional and economic development. Setting the study in the context of a rapidly changing world and the need for Australian business to compete and win globally, McKinsey and Company concluded that government had two roles in regional investment growth. The first role was to provide a stable, world competitive environment through control of such factors as industrial relations laws, infrastructure provision and legal compliance.

The second role was to act as change leaders, setting and maintaining the change agenda.

These observations in Lead Local, Compete Global would not have surprised officers in my own area of responsibility, Business and Regional Development, who have long encouraged changes in business attitudes necessary to survive modern challenges.

One of the most important challenges facing Australian organisations today is the achievement of international standards of performance. Shifts in the composition and size of world trade, reductions in tariff and other trade barriers, and the rapid pace of change in manufacturing and service industry technologies, are among the many factors increasing competitive pressures and pushing Australian organisations into the global marketplace.

The National Industry Extension Service (NIES) is a good example of government acting as a change leader. A Federal/State network, providing advice, information and referral services to enterprises, NIES in NSW has disbursed some $30 million since 1987 to 1,823 firms to match dollar for dollar the cost of a company hiring consultants in the quality and management fields.

As Minister for Small Business and Minister for Regional Development, I visit many companies and have observed that there are many ways of becoming world competitive. It’s clear that there is no standard nor rigid approach to enterprise improvement. What will ‘work’ in one company may be wrong for another.

The NIES approach is based on the assumption that every firm is different and each will need its own unique solution. There is, however, a general view that improvement will be greater if firms commit to a logical sequence of change rather than simply ‘buying’ products. NIES does not provide quick fixes for individual aspects of a company’s operations, but instead encourages a comprehensive and holistic approach by company management. This is the enterprise improvement process.

Recognising that there will always be exceptions, the NIES approach is to begin with a diagnostic. What has the company’s past performance been? What has shaped its current form? NIES uses a standard diagnostic approach for this initial review.

The second step in the process is to ask: where does the company want to be in 1, 3, 5 or 10 years? Is it responsive to market needs? NIES refers to this as strategic planning and offers the methodologies of World Competitive Manufacturing and World Competitive Service, but there are also others.

The next element in the process is to identify the steps needed to implement this strategy - a business plan.

Along with a commitment to implementation, the vital fourth step is to recognise the need to review the plan regularly, and embark on the essential journey of continuous improvement. NIES refers to this process as Total Quality Management.

Implementation of the strategy and continuous improvement will always involve attention to specific issues such as product quality, plant layout, process technology, product innovation, new market development etc. NIES has specific tools or packages in strategic management, design, export market planning, financial management, activity based costing and benchmarking.

The improvements which NIES, other government agencies and industry organisations are encouraging companies to embrace are changing the business world. The dynamism of this world requires particularly talented and well educated Economics and Commerce graduates who will understand and lead the process.

Mr Ray Chappell
It is almost trite today to say that the world is becoming smaller; that business is now global and that, if we are to achieve a prosperous future for current and future generations, Australian industry will need to compete and succeed internationally: possibly trite but certainly true.

We have just celebrated the 50th anniversary of Bretton Woods, the meetings which late in World War II essentially determined that humanity must not repeat the mistakes of the aftermath of World War I: weak international institutions, the calamity of the Great Depression, and the consequent ‘beggar thy neighbour’ trade policies such as the Smoot-Hawley Act in the United States.

Today, the institutions that grew out of Bretton Woods (the World Bank, the International Monetary Fund and, subsequently, the General Agreement on Tariffs and Trade or GATT) have delivered a far more prosperous, integrated and competitive world economy. If he were alive today, John Maynard Keynes, the great British economist and intellectual founder of Bretton Woods, would be very proud of the achievements of his brainchild.

For Australia, these achievements have also been an opportunity - to build our own economic future. Yet as economists are only too ready to point out, opportunities also have costs; if we are to succeed in the international economy we will only do so as a result of our own competitiveness, by making the most of our own resources - our labour and our natural endowments.

In this task, economics graduates, both in government and the private sector, have a significant role to play. Broadly, the role can be divided into three areas: to assist firms become internationally competitive; to help governments improve the domestic environment in which Australian firms operate; and finally, to provide the information Australian firms need if they are to enter and compete in overseas markets. In the latter two areas, economists in the Department of Foreign Affairs and Trade are already significant contributors to this process.

With regard to information on markets, the Department’s global network of contacts places it in an excellent position to assist companies. Economists working in overseas missions are able to gather, first hand, the commercial intelligence that forms vital input to business decision making processes. The knowledge of the economic and business environments in both Australia and the host country ensures that the analytical focus of their reporting meets the needs of Australian companies. Reports covering a wide range of topics such as recent economic and trade developments, changes in government policies and regulations, and opportunities for business are disseminated through a number of forums. These include briefings for business people and publications such as the Country Economic Briefs which are produced for all countries of current or potential commercial interest.

In addition to information on international markets, Australian firms need a competitive domestic economic environment if they are to be successful internationally. For the last decade, the Australian government has taken a broad range of decisions - floating the $A, deregulating the financial markets, labour market reform, reducing tariffs etc - that have created a fundamentally changed environment for Australian industry. This process, often labelled micro economic reform, has relied heavily on the skills and advice of economists in industry and government. Indeed, this process, to the extent that it focuses on internationalising the Australian economy emphasises the role of trade economists such as those in my Department. Further, despite the extent of progress already achieved, the world economy continues to change and demands continuing reform and adjustment on our part. In this sense, the task for economists will continue.

Finally, outside Government, the role for economists is also likely to expand: working with industry to analyse and interpret the information available, and to help their firms identify and achieve international best practice. Obviously, this is not to deny the trend evident in industry - in Australia and overseas - away from large bureaucratic structures. The challenge for economists will be to ply their profession in smaller, more flexible structures in a rapidly changing economic environment. I’m confident our universities will educate economists able to meet this challenge.
ECONOMISTS OF THE FUTURE: "NON-CALCULATING, UNSELFISH AND EMOTIONAL"

Graduates of economics and commerce should search beyond the confines of neoclassical economics for a framework which could encompass all human motivating forces in their attempts to address the many dimensions of society’s complex problems.

This was the advice of Professor Bruce Thorns, Vice Chancellor of the University of New England, in his Occasional Address to Faculty of Economics and Commerce graduates earlier this year.

“Economics should be the centrepiece (in solving these problems) but it should not be the only piece,” he said. “You will add value to your contribution if you can bring to the problems that you face, an appreciation of the fact that, whilst money making and utility maximisation are powerful motivating forces, they are not the only ones. Humans are also motivated by concern for aesthetics, for preservation of natural and cultural heritage and for other social, spiritual and ethical considerations.”

Economists, accountants, business advisers and managers, he said, face a level of mistrust, cynicism, and even hostility from those who don’t understand the profession and even those who pretend they do. Quoting the eminent retired Professor of Economics at Monash University, Professor Ross Parish, Professor Thorns said negative perceptions of economics have several sources.

“One is the inability of economics to reach a consensus or make reliable predictions. Honesty should compel us to admit that this criticism has a lot of truth in it but by how much they (economists) have fallen short of expectations is a matter of controversy. Similarly, the econometric program of discovering basic quantitative relationships has run out of steam, and econometricians have increasingly turned inwards to methodological issues,” he said.

Professor Thoms went on to say that another criticism of economists relates to their supposed cold, dry, rational, calculating attitudes to life in which spontaneity, altruism, warmth and emotion are lacking. “Professor Parish advised UNE graduates to be as non-calculating, as unselfish, as emotional as they want; it is nothing to be ashamed of,” he said.

Professor Thomas went on to say that Professor Parish shared the concerns of quite a few economists that the profession had become preoccupied with the notion of being, and of being viewed as, a scientific profession. This had led, he said, to a predilection for models, data and quantification, for dealing with economic efficiency issues that were tractable and reflective of the late 19th century marginalist school of economics that accentuated mechanistic, deterministic, static and utilitarian approaches.

Professor Thorns told the story of a meeting of Nobel Prize winners where physicists were appalled by the economists’ obsession with mathematics. The physicists, he said, had no objections to the mathematics itself - physics is far and away the most thoroughly mathematised science in existence - but physicists are comparatively casual about their math. And the reason is that physical scientists are obsessive about founding their assumptions and their theories on empirical fact.

“It is clear to me that there are many who believe that economists have placed too much faith in neoclassical theory and accompanying quantitative methodologies which could be seen as inadequate in dealing with the increasingly complex and uncertain issues facing modern society,” said Professor Thorns. “The global economy, the regional economy, the firm, the family, the individual, are confronted by massive uncertainties centred upon fickle and capricious human behaviour; and human behaviour is not easily quantified.”

“The knowledge you have acquired at university...is fundamental and provides valuable insights into such behaviour. But use it with caution. Be aware of the limitations of available quantitative methods, of the need to question underlying assumptions in particular cases, and most important, to be prepared to use qualitative judgements taking into consideration the wisdom of others.”
What are the causes of high unemployment in Australia and how can we most effectively deal with the problem? Where will the new jobs come from and what kind of jobs will they be?

These are some of the central questions facing economists today, notwithstanding the emerging signs of recovery, and members of the Employment Studies Centre (ESC) and Department of Economics have played a key role in this important national debate.

Researchers at this University were among the first to identify the nature of the problem as 'demand-deficient' unemployment, rather than a result of impediments to market forces. In a project in early 1992 the theoretical shortcomings - and complacency - of the market orthodoxy were challenged. The project advocated, and provided detailed modelling for, targeted public sector job creation programs as the most cost-effective approach to reducing unemployment and stimulating the economy in the short to medium term, especially in the regions.

The ESC has also undertaken a major, continuing project for the National Metal and Engineering Training Board on the role and significance of metal and engineering skills in the Australian economy. In its first stage, this project encompassed a series of case studies in the Hunter region and eastern Melbourne, and will be followed later this year and next year by further case studies in other regions around the country. The case studies showed that metal and engineering skills played a more significant role than is commonly understood in value adding activities, not only in the metal industry itself but also more widely in other sectors of the economy, and at all levels of the Australian Skills Framework. The case study analysis builds on earlier research by the ESC for the Federal Government's Training Costs Review Committee, and will influence future national training priorities.

On an international level, the ESC is undertaking research in collaboration with South Africa's National Institute for Economic Policy on the new democratic government's ambitious Reconstruction and Development Program. This research is designed to generate practical policy outcomes which reconcile the need to meet the expectations of the black majority for improvements in earnings and the 'social wage' (housing, health services and education) with the objective of sustainable economic development. Associated with this research is the opportunity at the University of Newcastle to cater for the growing demand among black South Africans for formal economics training.

A further report on research undertaken by the Centre for Employment studies will appear in the September issue of Van Gogh's ear.

LOW ON THE KEYNES PLAN

This cartoon (generously shared with us by Dr Roy Green) appeared in "The Manchester Guardian" by arrangement with "The Evening Standard" on Saturday, March 9, 1940.
THE PATHOLOGY OF CORPORATE FAILURE

By Professor Frank Clarke

'The secret of life is honesty and fair dealing. If you can fake that, you've got it made.'
Groucho Marx

Few human endeavours provide as fertile a research field as accounting and finance. Virtually everybody is fascinated by the financial verve of the high-flying entrepreneurs and equally horrified by the deception of the corporate cowboys. Monty Python's characterisation of accountants - limp and colourless - does not accord with history.

Little has captured public attention as much as the run of corporate failures over the past decade. Understandably so. Life savings have been lost, resources misallocated, investment confidence dampened. The pathology of corporate failure, in particular the role of accounting in it, is currently the focus of my research with long-time collaborator Associate Professor Graeme Dean from the University of Sydney.

Corporate failure provides a unique setting in which to enquire into the serviceability of accounting data for managerial decision-making and corporate governance. Accountants emerge as a far cry from the Monty Python grey flannelled suit characterisation.

In the earlier Australian financial crises of the 1960's - Stanhill, Latec, Sydney Guarantee, H G Palmer, Minsec, Cambridge Credit, Collins, ASL; and in the 1980's collapses of Qintex, Bond, Hooker, Adsteam, Westnex, Duke, AWA Ltd, Spedley and Linter, the evidence suggests that action and inaction by managers, directors, accountants and auditors, frustrated investors attempting to assess the wealth and progress of those companies. But equally it may be said that corporate managers were buoyed up by enthusiastic support from shareholders, bankers and other creditors for their ventures, all happy to hunt with the pack for high returns, revelling in the system!

To many Australians, corporate offenders possibly fit neatly into the Ned Kelly syndrome; to north-Americans, they conjure up the romantic image of the exploits of Bonnie and Clyde or of Butch Cassidy and the Sundance Kid; for the British, possibly they rekindle fantasies regarding Robin Hood - their boldness evoking curiosity, admired for their daring rather than deplored for their offence against the rights of others, perceived to be fleecing their victims reluctantly rather than being callously indifferent to their welfare.

That delusion is endemic of the way financial finagling is perceived. It always has been. Accounts of Blunt's 18th century deception underlying the collapse of the South Sea Company and of Law's fraudulent Mississippi Scheme fit the romantic image. Lord Kylsant is misrepresented to be a victim of the 1905 Companies Act as it affected his mis reporting of the Royal Mail's affairs: Samuel Insull - as a rather kindly, lonely, manipulator, despite the financial misery caused by the collapse of his utilities' empire at the commencement of the great depression; Ivar Krueger emerges as the financial genius of the 1920's and 1930's, duping governments and investors over a 30 year rampage; Philip Musica's masquerade, underpinning the McKesson and Robbins fraud, has become an impish pre-war escapade; Tino de Angelis' swindles in vegetable oils appear more the actions of a lovable eccentric dabbling in the post-war aid schemes than of a corporate criminal indifferent to any hardship his actions may have caused others. Coverage given to Michael Milken's junk bond exploits in the gusty 1980's, capture more of his daring, than of the ineptitude of regulatory mechanisms. Asil Nadir fleeing to Turkish Cyprus to avoid answering for dubious games with his Polly Peck empire in Britain has been labelled romantically as a modern Ronald Biggs, as if that were a virtue. The bewildering financial subterfuge of BCCI's Abedi is relegated to the bottom line in favour of gossip regarding his life-at-the-top. And everyone, it seems, gets more joy from the Church's embarrassment from the Banco Ambrosiano affair, than contemplating the defects of the international financial system facilitating it.

Nowadays, the media exercise is to invade the living rooms of the 1980's corporate cowboys. The cult of the individual has exploited inquisitiveness - good stuff for prime time television and fertile material for quick selling journalism. Media attention on the public players in corporate failure has been seductive. Mischievously, it has diverted public attention to the trivia of financial disasters - entertained many, but fixed nothing!

The research agenda in the Department of Commerce is directed toward redressing that omission.
A TAXING BURDEN

By Associate Professor Ian Wallschutzky and Mr Brian Gibson

Tax is a problem for virtually everybody. In small business settings complying with taxation requirements is, in many instances, an unbearable burden.

For the last three years we have been studying the problems small businesses have in meeting their taxation obligations. This research commenced when the Australian Taxation Office approached us to help it identify the changes it could make to reduce the compliance burden faced by small firms.

Since the study was completed the Australian Taxation Office (ATO) has changed the way in which it is organised. It is now organised along "client" lines with small business being one of those lines. This allows small business to have questions on several taxes answered by simply making a single contact with the ATO. Previously if a small business had enquiries about three or four different taxes it would have had to make enquiries at three or four different parts of the ATO.

Our primary focus was on a group of 12 small businesses situated in Sydney, Brisbane and Melbourne. The principals of these businesses were interviewed on a quarterly basis and completed weekly diaries recording the time taken on tax compliance activities and the problems encountered. Interviews were also held with two other groups: a cross section of accountants who specialised in small business taxation work; and tax office staff from one branch office who were likely to deal with small business.

Each quarter a report on the findings was given to the ATO. It was their desire to implement changes as soon as problems were identified rather than wait until the end of the project. The overall findings of the project included:

- Compliance may take TIME (approximately 12 hours per small firm per month) but generally small firms did not find compliance work DIFFICULT: an exception was with sales tax which was found to be both time consuming and difficult.
- The compliance burden between firms was uneven. Some firms spent as much as 80 hours per month while others did hardly any work. Some let work build up and then endeavoured to complete it.
- The cost of undertaking compliance work was shown to depend as much on the method chosen to measure it as it did on other factors. Two basic approaches, opportunity cost and incremental cost, gave diverging estimates of the overall costs. Those firms which had computerised records generally incurred lower costs.
- While almost all firms suffered cash flow problems, changing the timing of payment of taxation or changing the method of payment of taxes was not necessarily seen as solving the cash flow problems of small firms.
- When small firms encountered problems with the tax system they did not deal with those problems. They were reluctant to turn to their accountants because of the cost involved and they were reluctant to turn to Tax Offices because they did not trust them. They feared that by asking questions they might subsequently receive a tax audit. Suggestions were made to the ATO as to how their problems might be overcome.
- Generally the misgivings small business managers had about taxes were with the imposts themselves rather than the way in which they were administered. For example, small businesses were highly critical of both the training guarantee levy and the superannuation guarantee levy because they did not agree with the taxes themselves. On the other hand they commented very favourably about current administrative arrangements regarding group employers and prescribed payment system.

Current research is centred on better ways to measure the compliance burdens faced by taxpayers.
While very impressive industrialisation and economic growth have occurred in the South East Asian countries of the Filipinos, Malaysia and Thailand since the 1960's, the process has not been without its problems.

Mass poverty, shortages of clean water, urban overcrowding, stifling levels of pollution, overcrowding and transport difficulties are the down side of what the media call the "Asian Economic Miracle".

At a time when the Prime Minister has lifted the concern for and study of Asian economies to its highest level ever, and is persuading Australians to integrate more closely with Asia, an accurate and clear-sighted analysis of those societies will serve us better than media and pop-sociology distortions of South-East Asian reality.

In collaboration with a researcher at the Asian Development Bank, a University Professor in Manila and a leading Asian journalist, I am presently studying precisely the process by which internal fetters on accelerated industrialisation emerge from within the process of rapid economic growth itself. A good example is the growing shortage of clean water, something that Australians, as inhabitants of the driest continent, have long understood as a limiting factor on population and general economic growth.

The death of the major Asian rivers is part of the unfolding problem. The Chao Phraya in Bangkok, the Pasig in Manila, the Wupper in Shanghai all are, literally, dead. They are without marine life, unswimmable and undrinkable. Another facet is the effect of extreme levels of sulphur dioxide and other pollutants on the health of workers and consequent negative effects on the productivity of the workforce.

These matters are not normally studied by economists, but I believe that we must involve ourselves with such issues, as part of achieving an understanding of why "miracles" and "successful development models" come to an end.

My interest in Asia has been long standing. In 1970 I was elected to the Editorial Board of the Journal of Contemporary Asia, and became editor in chief (with Peter Limqueco) in 1980. I have since carried out 10 major fieldwork exercises in Thailand, the Philippines and Malaysia. Restrictions imposed on research by the government, have prevented me from investigating the Indonesian case. However, that country has made good ground in the last five years as pressure for democratisation has had some, if limited, effect.

In 1983 I conducted, with the help of local academics, a survey of 1200 workers spread across a dozen industrial sites and free-trade zones around Manila, Bangkok and Kuala Lumpur/Penang. At the same time we interviewed, in each country, more than 50 company executives. The results were published in a highly successful book Labour and Industry in ASEAN, written with Professor Odhnoff of Stockholm University, and Peter Limqueco.

A second major book focusing on ASEAN social issues as they are generated by the unique development experiences presently going on in South-East Asia, will be published soon.

With Asian Studies now a national research priority, it is appropriate that the University takes a part in the new research, and in forging links with Asia. A recent Faculty of Economics and Commerce proposal to "twin" with a South Korean University College is an example and extension of this trend.
ARE REAL WAGES TOO HIGH IN AUSTRALIA?

By Sally Cowling, William Mitchell and Martin Watts

The conventional wisdom among many economists is that high real wages cause unemployment, and commentators point to the recessions of the mid 1970's and early 1980's to support their views. The debate is highly controversial.

Post Keynesian economists argue that while labour costs do impact on employment growth, the linkages are more complex than the simplistic neoclassical vision. They say that for real wage rises to be detrimental to employment, they must cause a reduction in aggregate demand, since aggregate demand determines employment. The issue then comes down to a comparison between the positive effects on consumption spending and the negative effects on the profit share of a real wage rise unsupported by increases in labour productivity.

In recent months, neoclassical economists have called for further reductions in the real wage level to stimulate employment, given the persistently high levels of unemployment. Post Keynesians stress the need for higher aggregate demand, and emphasise the lack of private sector investment in a climate of record profit levels.

While the Accord process cut real wages over the 1980's and employment growth was strong, aggregate demand levels were also strong. In the 1990's, the effects of high interest rates eroded aggregate demand, and employment plunged but real wages maintained their downward decline. To impute that real wage costs are to blame for the recession is highly problematic.

Researchers in the Economics Department are exploring the relationship between real wages and unemployment in Australia over the past 20 years. The first part of the project asks the question: are real wages too high in Australia?

Our study examines trends in real wages, labour productivity and real unit labour costs, both in the aggregate and by industry over this period. The project constructs a range of Real Unit Labour Cost (RULC) indices at aggregate, sectoral and industry level to provide a measure of real wage overhang.

The welcome mat laid out by most in the economics profession to below-award training wages and employer subsidies as solutions to long term and youth unemployment (as set out in the Government's White Paper on Employment and Growth) provides a contemporary example of the support for a cost-based view of unemployment. There are three issues which must be addressed here. Firstly, what is the relationship between the distribution of factor shares (the way the economic pie is divided between wages and profits) and economic activity? Does a strong inverse, causal relationship exist between real wages and unemployment, or is unemployment the result of deficient aggregate demand with movements in the overhang simply reflecting this demand side phenomena? Secondly, to what extent are shifts in RULC's a product of the way the index is constructed and the measurement of its constituent parts? Finally, what factors drive the changes in the RULC indices?

We conclude that there is no evidence to support the view that real wage levels are inhibiting employment growth. A forthcoming paper by William Mitchell clearly shows the relation between investment and employment and argues that while real wages have been in trend decline since 1983, Real Gross Capital Investment has been in trend decline since the late 1960s. The emphasis on real wages and microeconomic policy initiatives has ignored the need for macroeconomic initiatives to counter the trend decline in investment.
RESPONDING TO THE NEEDS OF THE 90'S WORKFORCE

By Rachid Zeffane and Geoffrey Mayo

In the 1990's, a number of emerging issues are posing serious challenges to the staffing function in both public and private sector organisations.

As these organisations enter the 1990s, demographic characteristics are changing at a fast pace and are causing major changes to relationships between employers and employees.

The combination of an aging population and the growth of a younger minority population seems to indicate that industries are increasingly finding their pool of competent workers incapable of satisfying demand. As a result, managers have to reckon with this transformation and manage employees accordingly.

Added to this is the fear that new technologies might increase unemployment. Aspirations towards greater worker independence and self-reliance are also on the increase. Women's increasing importance in the economic and political spheres is forcing organisations to provide equal pay for equal work. While attracting and retaining key employees is becoming more important to competitiveness, appropriate staffing responses are being challenged by the diverse needs, values, expectations and aspirations of employees. Perhaps the greatest of these challenges is the need to respond to the changing composition and varied lifestyles of the labour force. This has triggered a greater realisation for organisations to tailor their staffing policies so that they can successfully manage this diversity.

Companies are responding to these challenges in a variety of ways, with a prime emphasis on more flexible work arrangements. Flexibility ranges in extent from linking family and work needs, providing alternative work arrangements and strengthening of part-time and temporary work, to a more widespread access to training and career development.

Flexible staffing is a prerequisite for successful management of a diverse workforce. Recruiting in tomorrow's labour market will require significant attention to the needs of dual-career employees who will demand and get special benefits such as on-site child care, longer maternity leaves, flextime, flexible benefits and employment for spouses at the same location.

One of the ideal results is that organisations do, in fact, reflect the contributions and interests of a diverse workforce culture by developing a resolute commitment to eradicate discrimination. Further, to address the issue of diversity, companies may need to espouse a life-planning approach.

Traditionally, staffing specialists and managers have tended to place greater emphasis on employee behaviour and on the development of personnel strategies in search for the enhancement of positive employee attitudes. Although business organisations have begun to practice strategic staffing, many managers and staffing specialists may still be reacting negatively to the concept of planning.

However, in the current socio-economic climate there is a growing need to consider staffing as a function that can and should play an important role in the development and implementation of effective strategic plans. All in all, there are strong indications that the most successful organisations in the 1990's will be those adaptive enterprises driven by a corporate philosophy with room for the strategic role of staff planning.

The above is the summary of "Career Trends & Staffing Strategies" by Rachid Zeffane and Geoffrey Mayo which will appear in the October issue of The International Journal of Career Management.
MODELLING THE MIND OF A CLEVER ROBOT

Humans are quite adept at storing and retrieving cerebral information and making decisions with incomplete information.

We have an awareness of both the information we know and the information we don’t know. We are able to reason about the information state of another person, we say things like “Rosie knows that I know her phone number” and “Rosie does not know that I know that she knows that I know her phone number”. We recognise that our information is defeasible, that it is liable to forfeiture, that some information is more defeasible than other information. We are able to learn and consequently modify our mental information state depending on the information we receive from our environment.

Modelling these abilities in an effort to build intelligent information systems, such as clever robots, is enormously difficult. For instance, database systems lack the capacity to learn, in dealing with the problem of incomplete information they use the most naive mechanism conceivable, the closed world assumption. This allows such systems to proceed as if whatever is not present in the database is false. Consequently, if a certain flight from Sydney to Perth is not present in the flight database then such a flight does not exist.

This assumption works reasonably well for simple applications of database systems in practice. But it does have several shortcomings, one of which is that the database system cannot distinguish between unknown information and false information. Sophisticated information systems require a much more elaborate mechanism for handling unknown information, usually some form of nonmonotonic reasoning.

An example of nonmonotonic reasoning is default logic which allows an intelligent information system to make conjectures by default on the basis of known information and the consistency of the default information. For example, let’s consider a robot who’s information state contains copious amounts of information about the animal kingdom; things like penguins are birds, birds normally fly, penguins don’t normally fly. One day the robot discovers that Tweety is a bird and since it doesn’t have any evidence to the contrary using default logic it will assume Tweety can fly. On the other hand, if it subsequently learns that Tweety is a penguin then it must modify its information state to reflect this newly acquired fact by retracting the default information.

The Alchourron, Gärdenfors and Makinson (AGM) paradigm provides a formal framework for ideal informational change based on the principle of minimal change, which forces conservative modifications to a corpus of information in the face of change.

For a computer-based informational change system the AGM paradigm, whilst possessing elegant theoretical properties, suffers from two principal problems: it does not require that the information state has a finite representation and it does not support iterated informational change.

The Nonmonotonic Reasoning and Informational Change Project being conducted in the Department of Management is addressing both of these problems. Its objective is to develop a model of informational change by which an intelligent information system could function in a complex and changing environment. It is headed by Dr Mary-Anne Williams from the Information Systems Group and involves researchers from The University of Sydney, Macquarie University, The University of York in the United Kingdom and Linköping University in Sweden.

Some recent results obtained under the auspices of this project were presented at the International Knowledge Representation and Reasoning Conference in Bonn, and the European Conference on Artificial Intelligence in Amsterdam earlier this month.
HOW SAFE ARE WEAPONS FIRING RANGES?

By Dr Alun Pope

In 1983 a UK woman was fatally wounded while near, but outside, the boundary of a weapons firing range. In 1988 an eleven-year-old boy was hit by shrapnel from a 105mm shell accidentally fired into a village.

Although serious accidents of this type have not occurred in Australia, the Australian Ordnance Council has taken a lead in the development of a rational, scientific approach to the management of the risks involved in the operation of firing ranges.

A $240,000 project, funded by the Australian Ordnance Council is currently being conducted by Dr Xun-Guo Lin and myself from the Department of Statistics.

Many different types of weapon are fired on many different types of ranges. On military ranges the weapons fired may be automatic such as machine-guns, or explosive such as guided missiles and artillery shells. Munitions may also release multiple submunitions, such as bomblets. Moving targets and firing platforms may be involved, as in air-to-ground, or air-to-air practices.

The enormous variety of cases for which safety issues must be addressed has required a careful mathematical analysis of what, in principle, can be done. This has been necessary in order to provide precise mathematical statements of problems. After a theoretical basis had been laid, the work continued with computer simulations based on the small amount of existing experimental data.

A generic solution has now been obtained to the problem of estimating levels of risk and the distribution of risk over a range surface, or through the region above it. Computers models of real firing ranges, using real firing data, can show, for example, that it is possible to put a shell over a mountain range which is 600m higher than the firing point. This has, in fact, been observed and was a matter of some concern to the Swiss authorities, since a projectile fragment was found in a village some 20km beyond the mountains. Research into aircraft self-damage has shown that aircraft firing at the ground can be damaged by flying into their own bullets after they have ricocheted from the ground. Analyses of this sort may be used in future to plan safe training practices for aircraft. The consideration of time-dependent behaviour is also a new direction initiated in Newcastle.

The main sources of variability are the topography of the range and the behaviour of the projectiles after ricochet. Weapons can be aimed extremely accurately - it is the ricochet that leads to the highly variable results requiring statistical rather than deterministic analysis. Direct modelling of the physics of the underlying processes has been largely unsuccessful because of the lack of fundamental data (eg the shape of a projectile deformed after ricochet). A statistical approach to ricochet modelling, based on the analysis of flights observed with a Doppler radar is therefore being pursued. This analysis is in its infancy and has not yet produced results.

The Australian Ordnance Council has committed itself to international cooperation on this project, and the work is reported annually to the International Range Safety Advisory Group (IRSAG) and the NATO Range Safety Panel. Although very little experimental work will be done in Australia because of the cost, the University of Newcastle group continues to play a leading role in the development of this international effort through my membership of the IRSAG Expert Working Group (Theory) and now through membership of the IRSAG Expert Working Group (Data). The Newcastle work has recently been accepted as the basis for a draft NATO Standardisation Agreement, which is quite a coup since Australia is not even a member of NATO!
SCARL is the University's Statistical Consulting and Research Laboratory, a service provided by the Department of Statistics for anyone doing research in the University. Its purpose is to improve the quality of research carried out here by adding our skills, in collecting and analysing data, to the expertise of our clients in other faculties. As well as doing the statistics on individual research projects, SCARL can have long-term effects through technology transfer, adding to the statistical knowledge of research groups around the University.

We also aim to enrich the education and training of our student statisticians through their involvement in statistical consulting.

SCARL started in 1992 with a $20,000 discretionary grant from the then VC, Professor Keith Morgan. We used most of this money to enable Professor Marty Puterman to spend part of his time designing, establishing and directing the new service. A visitor to the Department of Statistics from the University of British Columbia in Vancouver, Professor Puterman had experience with establishing and directing a similar service there. This year, Professor Raoul Mortley has renewed the grant and we have a graduate in statistics, Bill Plaatzer, to be the point of contact for new clients and to keep track of current projects. Cathy Turner of UCS takes care of most tasks related to statistical software, including installations and assistance with statistical programming. The work of consulting with clients and carrying out analyses is performed by members of staff of the Department of Statistics and by honours students working under their direction.

SCARL has done work for clients from all faculties except Art & Design, Law and Music (see table). Demand has been particularly heavy from the faculties of Medicine and Health Sciences and Education, areas which traditionally make great use of statistics. Within the Faculty of Science and Mathematics, our clients have come from Biological Sciences, Geography and Psychology.

Call SCARL on 5517.

A group of schoolchildren at Mayfield West Demonstration School will be sadder, wiser, more informed, enriched and enlivened following the departure of two exchange student teachers from the United States.

They will be sadder and wiser because they have learned a valuable lesson that sometimes wonderful people are only able to share a small part of our lives, but enriched because of their exposure to a different cultural perspective and a great deal of infectious energy, not to mention some rather effective teaching.

The exchange student teachers, Lisa Bauerschmidt, 23, from Wauwatosa in Wisconsin and Tara Tucker, 23, from Long Island in New York, are both students of the University of Wisconsin-Madison campus. Their three-month stay in Newcastle is a pilot placement in an exchange program currently being explored between the University’s Faculty of Education and the University of Wisconsin-Madison.

The placement follows an enquiry by Professor Ken Zeichner, Director of the Elementary Education program at the University of Wisconsin-Madison to lecturer in Education, Dr Jenny Gore. It parallels a program already in place between the American University and the University of Peterborough in England.

Both Lisa and Tara were enthusiastic about their Australian experience. “Even though the (Australian) school structures are different from those in America, kids are the same wherever they are,” Lisa and Tara said.

“We have found the curriculum here more planned out and more integrated, whereas we have been used to teaching around themes,” they said. “In a word, the opportunity to come to Newcastle has been ‘neat’.”

Program evaluations from the student teachers, the school involved and Dr Gore will be used in discussions between the Dean of Education and Professor Zeichner who will visit Newcastle later in November as one of the keynote speakers at the Australian Association for Research in Education Conference to be held on campus. These discussions should clarify future possibilities for an ongoing partnership between the two universities for teacher education.
RUSSIAN ECONOMIC REFORM

With an inflation rate running at 9.8% per month and a production slump of 25% per month, the Russian economy has severe problems, according to visiting Russian economist, Dr Larissa Sosnovskaya.

“If the high rate of inflation persists, there will be no real investment, no economic restructuring, no innovations in industry...this absence of incentives to innovation means there will be no middle class formation in our country, the main social force for positive change in the economy,” she said.

Dr Sosnovskaya, who has a PhD in Economics and is currently working towards a PhD in Science at Saint Petersburg University, said the Government had begun implementing economic reform in Russia in 1992. Speaking at a public lecture on campus, Dr Sosnovskaya discussed the economic goals of the pro-reform party, Russia’s Choice, sometimes called the party of radical reformers, as one of skilled workers, petty bourgeoisie, and private owners and is supported by President Yeltsin.

“The reformers’ main tasks are to create a legal framework for market forces, combat inflation, curtail the State structure, guarantee the rights of private owners, reduce subsidies to inefficient industries and stop soft credits and extensive public credits,” she explained.

An alternate concept of the road to economic recovery had been proposed by a group of leading economists from the Russian Academy of Sciences, who had played quite a progressive role in the early stages of Perestroika. In a policy document they had produced, the academics wrote that the purely monetary policy undertaken to stabilise the economy and move toward a market economy had failed. They denounced price liberalisation and denied any positive change having come from the reformation. The authors of this policy focused on strengthening the regulatory interference of the State, implementing an active structural policy by means of selective State investment.

But with Western analysts predicting that Russia’s economy will not pass crisis point until 1995, Dr Sosnovskaya can see difficulties with the aims of the academicians.

“The proposed strengthening of the regulatory interference of the State is most likely to deteriorate financial disproportions and to raise effective demand several times as large, which will contribute to the growth of inflation, as I see the problem,” she said.

“Emphasising the growth of production, the academicians ignore the forces that lead to the old system’s breakdown, these being no incentives for innovation, no flows for capital labour and money to lucrative branches and a great waste of resources.”

Dr Sosnovskaya said that the conflict between these two dominant economic theories could be described in terms of the social forces that stand behind them. “The first is supported by those who have realised that the main economic evil in Russia is the inflationary tax on money; the second by those who can not survive without inflationary state financing.”

And while there is disagreement over the way to proceed economically, the reform-minded politicians had all resigned in a Government reshuffle earlier this year. Dr Sosnovskaya described the current Russian Government as a get-together of the heads of different departments, lacking in common logic and will, susceptible to the demands of lobbyists.

“In the mass media they are dubbed the New Monetarists, and their actual policy is called spontaneous or underground monetarism. While they have made many promises to continue reforming the economy, the promises are not supported with resources,” Dr Sosnovskaya said.
DR TONY HERZOG
Dip.Eng (Budapest), PhD (NSW), FIE Aust, MISCE

By Professor Adrian Page, Department of Civil Engineering and Surveying

Tony Herzog, one of the founding members of the Department of Civil Engineering and Surveying, passed away on March 16 at the age of 75. Tony was born and educated in Hungary and trained originally as a chemical engineer at the Technical University of Budapest. He migrated to Australia with his wife Hertha in 1949 and, to satisfy immigration requirements, worked initially as a dish washer in the Nelson Bay migrant hostel and as a labourer and then laboratory technician at BHP. In 1951 he was employed as a laboratory technician at the Newcastle Technical College at Tighes Hill and was then almost immediately transferred to the staff of the fledgling Newcastle University College to become the second member of the Department of Civil Engineering and Surveying. Together with Dr George Haggerty, Tony played a crucial role in the development of the Department and rose to the position of Associate Professor before retiring in 1981. Over that period Tony saw the Department grow from its humble beginning to one of the most active and successful in the University, and even in his retirement, maintained a keen interest in its affairs.

As well as being active in academic areas, particularly related to engineering materials (his doctorate and principal research interests were in the area of soil stabilisation), Tony Herzog also made a major contribution to the Engineering Faculty and the University. He was Sub-Dean to four successive Deans of Engineering, active on various University committees, President of the Staff Association and Chairman of the Newcastle Division of the Institution of Engineers.

Above all, Tony was a person of generous spirit, always interested and concerned about others, and for this reason highly respected and liked by both students and staff. This attitude flowed on to his life outside the University, where he was active in charity and community affairs and always concerned about people less fortunate than himself. He will be missed by many and fondly remembered by his friends and members of the University community who knew him.

Two eminent physicists paid a two week visit to the University recently to take part in a research group exercise organised by Professor Brian Fraser from the Department of Physics.

The group looked at magneto-spheric physics, a study of low frequency electromagnetic waves surrounding the earth in space.

The visitors, Professor Keith Cole, Foundation Professor of Physics at La Trobe University and his wife, Professor Valerii Troitskaya, an Honorary Professor at La Trobe, between them hold a wealth of knowledge in this field. Their particular emphasis was on the ionised gas region of space.

"We must understand as much as we can about this medium," Professor Cole and Professor Troitskaya said. "The research on this has an application to communications, high altitude aircraft, polar flights and even radiation from the sun which can penetrate the atmosphere."

"Our discussions here have centred around the influence of the composition of the plasma on the low frequency magnetic waves. By researching this we can diagnose the conditions of space from the ground, a type of remote sensing. "This knowledge could be of great value in determining precursors to natural phenomena such as earthquakes," they said.

Professor Troitskaya, formerly a divisional Head at the Institute of Physics of the Earth in Moscow, is one of the world's leading scientists in this field. During the 1950's, she discovered the first American satellite explosion in the upper atmosphere.

Associate professor Brian Fraser (l) with Professor Keith Cole, Professor Valerii Triatskaya and Dr Fred Menk.
FLOOD PLAINS AND THEIR INTERACTION WITH THE MAIN CHANNEL

Flood levels only receive significant community attention after a major event like the 1955 Maitland flood.

Their accurate prediction for determining zoning constraints and community safety is an area in which traditional approaches may be producing erroneous results. Additionally, the economic implications of flood damage and land sterilized because it is below the 1 in 100 year level can run to millions of dollars. One problem which has been demonstrated experimentally since 1964 is that the traditional methods used by hydraulic engineers to calculate the conveyance of a cross-section which consists of a main channel flanked by flood plains, can be substantially in error.

The traditional approach to the problem of calculating the flow in such a compound channel has been to calculate the flows separately in the main channel and on the flood plain and add the results together. Unfortunately this simple approach grossly over-estimates the conveyance capacity of these channels because it neglects the turbulent momentum exchange process by which the low-velocity flood plain flow retards the higher velocity flow in the main channel. As a result, flood levels calculated using this approach may be significantly lower than the flood levels which would be observed.

Despite a significant amount of research, practical methods of predicting turbulent momentum exchange have been elusive. This gap between the observed phenomena and current engineering practice led to the development of a research program in the Department of Civil Engineering and Surveying. This research was carried out by Martin Lambert under the direction of Dr Wal Field with the work culminating in Martin’s PhD thesis.

While not all the difficulties associated with this apparently simple but actually intractable problem have been resolved, this research has led to simple practical methods which give significantly improved estimates of the conveyance capacity of river channels.

Whilst much of the theoretical and experimental work associated with this project has been carried out at this University, interaction with the University of Bristol in the UK resulted from Martin’s 12 month appointment there as a Research Assistant, where he worked both at the University and at the hydraulic research laboratories of HR Wallingford in Oxfordshire.

Martin’s thesis constitutes a very thorough and comprehensive work on this subject. It was unusual in the depth of coverage of the wide ranging topics involved. In one of the examiner’s opinions “at least four of these topics would, individually, have provided enough material for a perfectly adequate PhD dissertation if written to the standard of the present one”.

Martin is currently working as a Post-doctoral Fellow in the Water Resources Group of the Civil Engineering Department and is tackling the joint probability problem associated with the assessment of flood levels that are affected by the interaction of the flood with different ocean water levels. Martin is continuing his study of compound channels which still have many exciting areas to be explored.

Above: The 12m flume constructed for the experimental program on compound channels at Newcastle.

Right: The flood channel facility at HR Wallingford in the United Kingdom. (Photograph courtesy of HR Wallingford)
THE PERSONAL WRITING OF ADOLESCENTS

I Am
My eyes are serpents
that want to get out.
My mouth is a tiger
that wants to leap forth
My breath flows
like a bloodstained river.
My ears sit
on a moonlit hill.
My mind is a flea racked hound.
1991

When she wrote this poem, Chloe was 14 years old. She said that she was very unhappy at the time. Her particular situation was having such a powerful effect on her mind that in the poem she calls her mind ‘a flea racked hound’. After she wrote the poem, she felt much better. She had got something off her chest. When she later re-read the poem it showed her how tormented, stifled and frustrated she had felt. Chloe started writing poems in Year 7. She wrote a couple a week. She also kept a diary. She showed her poems to friends and teachers but she had never shown her diary to anyone. Her diary was very, very private.

Chloe is one adolescent who does personal writing. Most people know at least one young person like Chloe who did or does personal writing. Perhaps there’s a secret diarist, an avid poetry, short story or a copious letter writer living in your home. Perhaps you used to write. Some adolescents are known to come home and write a letter to their friend whom they have only just seen and whom they will see again at school the very next day. Did you ever wonder why? Perhaps you thought this adolescent was atypical, and perhaps not.

In her Master of Psychology (Educational) thesis, Ms Caroline Ruming decided to find out just how common it was for adolescents from one large country town to do personal writing. She also wanted to find out why they wrote and what they did in their writing. In a survey of one thousand 12 to 18 year old students she found that a surprisingly high proportion of students did some form of personal writing outside the requirements of school - even the boys! How often the students wrote varied with age but over 60 percent of boys and 90 percent of girls did some form of personal writing.

Girls regarded their diaries as special, trustworthy friends in whom they could confide. Most diaries had names. Some diaries even had voices. Diary writing was unpopular among boys. They preferred short stories where they could create characters whom they would like to be like. They could also manipulate and control their characters and send them on adventures or let them win a tennis match just like the one they were to play in a week’s time. The boys liked poetry too. Poems were good for expressing their ideas.

To find out what they did in their writing, and why, Ms Ruming interviewed 60 personal writers. Like Chloe, many writers generously gave her copies of their personal writing to read and analyse in conjunction with their interviews. Some of this material was described in lively case studies.

Caroline’s research shows just how important and constructive personal writing was for the adolescents in her study. It was not just a way for adolescents to avoid homework, to pass the time or to get out of the washing up! Writing played multifaceted roles. It helped the adolescents to ‘see’ themselves and to ‘hear’ themselves. Diaries were like video clips of one’s life but recorded in words, not pictures. Writing helped to find out what they were like and how other people might see them if they dared speak their mind. Mirrors cannot hold onto ‘talk’ but writing does. It helped them to see how they changed over time. It was a private but useful way to ‘talk through’ problems. It was a safe way to explore without doing irreparable damage to relationships with family and friends and one’s reputation. Story writing allowed people to write themselves into the future; to become someone with whom they identified. Writing helped to make meaning of one’s world.

An individual’s personal writing is a wonderful medium to use to ‘look into’ the interior world of an individual to see how they were thinking and what they thought about. Letters and accounts of interactions in diaries are like written traces which are left behind after the social interaction has ceased happening. The case studies showed the often problematic nature of each individual’s relationships with friends and family and how they understood and dealt with those problems. The writing manuscripts enabled Caroline to ‘observe’ and analyse the dynamics of the social world of an individual without the researcher being there and hence influencing what was said and done. Such manuscripts provide a privileged and fruitful way to learn about adolescent development and adolescent culture.
In July 1991 the Australian netball team won the World Netball Title in a spectacular 53 to 52 victory over New Zealand. What little media coverage there was of this event expressed more surprise than congratulations. Most Australians were unaware Australia had a national netball team, despite the fact that netball is one of the most played sports in Australia.

Things have improved slightly since then but media coverage of women's sporting achievements lags way behind the community's acceptance of women's equality, according to research recently completed by Mr Peter Brown from the Department of Leisure Studies in the Faculty of Arts and Social Science.

Taking every 15th edition of "The Newcastle Herald" and "The Sydney Morning Herald" at five year intervals, Peter collected data on the percentage of newspaper space devoted to sport and what proportion of that coverage related to women during the last 100 years.

He noted that there had been a marked increase in the amount of coverage and the diversity of women's sports reported in newspapers - things appeared to be improving. However, when he looked beneath the statistics at proportional coverage of men's and women's sport, he found a different story.

"Although the amount of space devoted to women's sport is increasing, so is the coverage of male sport and at a greater rate. Instead of the gap narrowing it is actually getting wider," he said. "We were making great progress until 1940 when coverage of women's sport was about 14 percent. However since then the percentage has levelled out and even slightly decreased."

"The most reported sports are the various codes of football and cricket which together comprise almost half the total coverage. Netball, which has one of the largest player bases of any sport, received 0.1 percent of coverage in 1990 whereas rugby league, which doesn't even feature in the top five most played sports, received 20 percent of the total coverage."

These figures persist despite almost 10 years of government policy and initiatives to raise the profile of women's sport. The issue has been the subject of two government enquiries and has been mentioned in the two National Agendas for Women released in 1987 and 1993 respectively.

So why then, when societal attitudes to women have changed dramatically since the turn of the century, does sports media lag behind public perception? And why does it matter?

"Many sport stories appear in the early sections or on the front page of the paper. This indicates that sport is a significant part of our national culture, it is not something that can be set apart from the rest of society. There is something wrong if it is predominantly about men," Peter said.

"Furthermore, when women do appear in sports coverage they are often trivialised or presented in sexist or stereotyped ways."

As to the reasons for male dominance in this arena, Peter has several theories.

"Since the advent of television, there has been a growing nexus between sport, media and sponsorship," he said. "With the growing commercialisation of sport, sponsors are demanding increased media exposure."

"I believe that, despite women's political and social advances, what really drives sports coverage is meeting sponsors' needs. This benefits sports which have established infrastructures and those which market themselves well. These are generally male sports."

The marked increase in coverage of national and international sport, as opposed to local and regional sport, also advantages male sports, he said.

"Local sports news, as a percentage of total sports news, decreased from 48.7 to 19.4 percent between 1965 and 1990. Fewer women's sports are played at the national and international level, therefore coverage is less. This is changing in both women's netball and basketball which have moved into national competitions but now many men's sports are playing in international competitions. Women's sports will again be left behind."

Many sportswomen do not lament the lack of media coverage but there is more at stake than egos and recognition.

Media coverage of sport provides role models and promotes a healthy lifestyle. Statistics show that a large percentage of girls stop playing sport after the age of 14 and many women do not get back to regular sport and exercise after having children. This has major health implications for the community as a whole and, according to the policy makers, inequities in this area must be addressed.
REFLECTIONS ON QAR

By Associate Professor Terence J. Lovat, Department of Education

In Part 2 of Reflections on QAR (Quality Assurance Review), Professor Lovat delves further into the “mystical” QAR process.

The power that is inherent in the review process is not only concerned with its live participants. There is an impersonal side too, a mysterious, indeed, almost mystical thing, certainly something best understood by reference to mythology. The review process, and its findings, constitute one of the great myths of our age and, like so many such myths, delivered by the apparent veracity and surety of modern social scientific methodology. We academics cannot be too sure about this. After all, much of our livelihood and reputation rests on the same kind of myth. Research, once published, becomes truth, and citatory truth at that. We cannot be surprised then that the published review report has come to have the same status. In fact, as with research, some of the review processes which preceded publication will have been more rigorous than others. Once published, however, only a select few will know the difference. This is our frustration relative to the QAR report: we believe that it has done us a huge injustice, but the report will continue to have a ‘truth’ about it far beyond that enjoyed by our protests.

So, what conclusions are to be drawn? Which response should dominate? Should it be inaction-tending scepticism or action-oriented respect? The dilemma is self-resolving. Scepticism can be healthy but its fruits should be reserved for the port party or, at best, the leisurely retreat; the same could be said of the game of ‘shooting the messenger’. Day-to-day, it is action that is needed ... not necessarily action that touches on our deepest beliefs and values, but carefully planned, shrewd and collaborative action nonetheless. Let us take each of these in turn.

Carefully planned action: In the face of the review, one can never be over prepared. After all, if detailed documentary preparation proves superfluous, then one has wasted a tree or two; if lack of same proves inadequate, then one has likely wasted oneself. We must remember that the review process has normally been initiated because someone believes there is a problem somewhere, so reviewers will be more interested in the hole than the doughnut; the trick is to make sure there is no hole, or at least to make it as undetectable as possible.

There is a positive side as well to the tedium of documentary preparation: a little like filling out ethics clearance forms (he says dispassionately), it is the small price we pay for living in an age of accountability. Granted the social legislation that determines so much of our mores, and the fashion of public accountability that is in direct proportion to degrees of public exposure, we cannot expect to be the only species of public institution that is freed from strenuous and documented accountability measures. Furthermore, I do not believe this is a risk to genuine academic freedom. The sort of academic freedom that is not complementary with proper public accountability is likely not academic freedom but academic licence. Rather than leave it to chance or whim, true academic freedom can actually be fortified by integrating the notion with our statements of public accountability.

Shrewd action: One should never make the mistake of viewing reviewers as colleagues.

In the context of the review, they are not; the relationship between artisan and victim is altogether too unequal for that. The former has the power to do the latter to death, and often will. The reviewer is to be treated with great respect, friendliness even, but never with ingenuousness. The artisan has a job to do, and invariably the job is associated, remotely or directly, with cleaning up someone’s act, probably the victim’s.

Collaborative action: Perhaps the most disastrous way to face any review is in a divided state. This is a hard one to control because, on the one hand, the review has likely been called because of perceived or real disharmony among the victims, while, despite this, and on the other hand, members of the victim class will be sorely tempted to take the opportunity of the review to settle a few scores. Cracks of division, however, become ravines in the face of a review, and, of course, everyone ultimately loses if the reviewer’s conclusion is that the group is too divided to be adequately discharging its duties. In this respect, it is the unhealed sores of amalgamation, rather than the historical fact of it, which could be an enemy within. For this expediency, if for no better reason, it would be timely to be rid of them.

TOP STUDENTS ATTRACTED TO ENGINEERING COURSES

The Frank Henderson Scholarship for 1994 was recently awarded to four students entering the Department of Civil Engineering and Surveying with the best performance in the Higher School Certificate examinations.

A cash prize of $500 is awarded to four students each year to recognise the contribution of Emeritus Professor Frank Henderson to the department. It is publicised locally and in country areas in order to attract top quality students.

Photographed with Professor Adrian Page, Head of the Department of Civil Engineering and Surveying are (left to right) Andrew Lau (Environmental Engineering) with a TER score of 95.45, Timothy Gregor (Civil Engineering) with a TER score of 95.6, Stephen Roberts (Civil Engineering) with a TER score of 97.10 and Scott Gerrish (Civil Engineering) with a TER score of 95.20.
ADAPTIVE TECHNOLOGY CENTRE

The new Adaptive Technology Centre, officially opened in May, is a testament to the University’s commitment to the aims of equity and access.

With money provided by the University (by special grants and a couple of fund raising rock concerts) the Centre provides some of the latest technology designed specifically to help students with a disability access information.

Disability Liaison Officer, Ms Valerie Shevels, said the Centre was particularly useful for students with visual and learning disabilities and for people who use braille.

“In the past such students have been extremely disadvantaged by not having the same access to material as other students,” she said.

The equipment now available at the Centre includes a Nomad, designed by the University’s Professor Don Parkes and Mr Richard Dear, Zoomtext, Picture Braille, an Arkenstone Scanner, Speech Synthesis packages and a Versapoint Braille Embosser.

The Nomad is an ingenious piece of adaptive technology which can create tactile or “raised” graphics. These graphics are placed on the Nomad pad and the student is then able to interactively explore their contents. A speech synthesiser, or alternatively, actual recorded speech, can be used to guide the user through the information provided for the graphics.

“Students simply run their fingers over the raised graphics and when slightly more pressure is applied to a point on a diagram or drawing, Nomad’s technology comes into action reading aloud any information stored about that particular area on the graphic,” Valerie said.

Nomad enables students to read maps, plans, diagrams, graphs, line drawings, simple pictures, Braille, Moon and other codes. Zoomtext, as the name implies, is a text magnification software package specifically tailored for people with visual impairments. It magnifies the display of existing application programs and allows the user to design the way the display screen looks.

“Text can be magnified up to 16 times its usual size and Zoomtext allows the user to scroll through parts of a text at a speed they choose,” Valerie said.

“This can be a useful tool for people with learning difficulties or manipulative problems, as well as for those with visual impairments.

“As to Picture Braille, it’s a tactile image creation software package. It’s a simple computer drawing program used by a sighted person to produce drawings and diagrams for a person who is blind to access.”

These pictures or diagrams may include braille or standard text labels. Graphics are “raised” using an embosser such as the Versapoint thus creating “picture braille”.

The Arkenstone Scanner is a product of the technology of optical character recognition. It takes a printed page and retrieves it into the computer as an image file. The image is then translated into, a standard ASCII text file.

“Students can use a speech synthesiser to “read” the information aloud or, alternatively, the speech can be taped for use at a later date. For someone with low vision, the information can be viewed on screen using Zoomtext and for those who are blind, the information can be brailed via the Versapoint embosser,” said Valerie.

The Versapoint takes text from the computer and embosses paper in braille format. Its memory can hold up to 30 braille pages and it embosses at 40 characters a second.

Speech synthesis is an integral part of adaptive technology. It enables a person with a visual impairment to be able to listen to, rather than having to read, text appearing on the computer screen.

“It’s an extremely powerful tool and it enables a student to carry information on floppy disk and have it read by a computer with a speech synthesiser. When used with Optical Character Recognition scanning, it enables the user to enjoy far greater access to library collections and course material than would otherwise be the case,” Valerie said.
25 YEARS OF SERVICE TO TUNRA LIMITED

Professor Alan Carmichael, aged 75, is well known to this city and to this University. He came to Newcastle from Sydney in February 1967 to take up the Chair in Mechanical Engineering and later became Dean of Engineering as well as Head of Mechanical Engineering. He held these positions for close to seven years, during which time the number of enrolled engineering students increased more than tenfold.

Having played an active role in the establishment of Unisearch Limited at the University of New South Wales before coming to Newcastle, Professor Carmichael saw the benefits of a research/development company at Newcastle. With his help, The University of Newcastle Research Associates Limited (TUNRA Ltd) was incorporated in October, 1969.

In 1974, at the request of the then NSW Minister for Public Works, Professor Carmichael took over the Presidency and Chair of the Hunter District Water Board, positions he held until 1982.

In 1980 he was also invited to the Board of the Newcastle Permanent Building Society and its associated companies, a position he still maintains.

There is no doubt that Professor Carmichael’s work has helped to shape and develop Newcastle as well as the University. He helped establish the Hunter Development Board Limited, Hunter TAFE CAM Limited, Hunter Plant Operation Training School Limited and Hunter Group Training Limited.

In all this time, Professor Carmichael served continuously on the TUNRA Board, mostly as Deputy Chairman and contributed to its growth and development. Professor Carmichael’s contribution is greatly valued by TUNRA’s staff, current and past Board of Directors, as well as the University itself and we are saddened by his departure. It has been his wish to achieve the 25 year milestone and leave the way clear for “younger blood” to continue with the further development and success of TUNRA Limited.

ALL THINGS ARE AN EXCHANGE FOR FIRE

An exhibition of photography, text and music was held at the Newcastle Workers Club in May this year. Photographer Allan Chawner and writer Paul Kavanagh collaborated on an exhibition on the Bloom Caster at BHP’s Mayfield plant. This is the fourth exhibition produced by Chawner and Kavanagh, both of whom work at the University of Newcastle. It was funded by the Australia Council for the Arts.

“This exhibition provides an original way of seeing the steel making process which is now controlled by computers yet still requires human skill, supervision and intervention,” Allan said. “The photographs, text and music reflected the scale and risk of the work, its origins in ritual and alchemy, and in the natural forces of earth, fire, air and water.”

Allan was one of only six photographers nationwide whose work was chosen for the inaugural Exhibition of the National Portrait Gallery. His photograph of his father, Jack Chawner, was chosen from the Photographic Memory exhibition.

The portrait will hang in the National Gallery until August.

Dear Editor,

The previous issue carried a handsome photo of John Bell receiving his honorary doctorate and the congratulations of his wife, Anna Volka. As a self-styled ‘organum deconstructum’ Van Gogh’s Ear can hardly complain if the signifiers accompanying this photo are (re)-interpreted.

Perhaps the broad smile on John Bell’s face derives from the fact that Anna has told him the answer to the quiz question. That, readers will recall, was in relation to the identity of the senior member of the University who went to the Macbeth opening night and later commented, ‘To my eternal shame I have to confess that I went along having no idea what it was about.’

Who uttered these ‘eternally shame­ful’ words? None other than the Deputy Vice-Chancellor (Academic) Professor Michael Carter. And who heard him, and supplied the right - indeed, only! - answer? The ‘bloody, bold and resolute’ Dean of Arts and Social Science, Assoc. Prof. John Ramsland.

Well done John! The bottle of wine from Staff House is yours to collect.

Yours sincerely,

Robert Mackie.

Dear Editor,

It is more than five years since Professor Kelver Hartley died and left a wonderful legacy to the French Department of Newcastle University. There was a large amount of media interest then which generated plenty of general interest but no publicity since.

Many people, and especially Professor Hartley’s students would be pleased to see some continuing recognition of such herculean efforts to assist present and future French students and the high honour bestowed on the University of Newcastle.

Yours sincerely,

E J Bale.
ENVIRONMENT WEEK 1994 PROGRAM
SEPTEMBER 12 - 17

Monday, September 12
11.30 am Official Opening
12.00 noon Celebrity Speaker
Richard Jones, Australian Democrat Party, Wilderness Society on Woodchipping, Howard Dick on Coastal Protection
Band - The Bar on the Hill
1.00 pm Campus Walk
Tour Leader: Kevin Stokes and Karen Gray
Meet at Chancellery Forecourt
All Day Static Displays at Shortland Union

Tuesday, September 13
9.00-12.00 noon Bicycle Maintenance and free pancakes for cyclists
11.00 am Environmental Handbook Media Launch
Shortland Union Courtyard
Rainforest Action Group workshop and video in Ritchie Room
1.00 pm Campus Walk
Tour Leaders: Kevin McDonald and Glenn Albrecht
Meet at Chancellery Forecourt
All Day Static Displays at Shortland Union

Wednesday, September 14
11.30-12.30 pm "Crossing the Waters"
Competition - a prize for the first team to cross the lake between the University and the new railway station without using a boat yet remaining dry.
12.00 noon Band (Environmental Theme)
Shortland Union
1.00 pm Campus Walk
Tour Leaders: Kevin McDonald and David Wilks
All Day Static Displays at Shortland Union

Thursday, September 15
9.00-12.00 noon Free pancakes for cyclists
9.00-2.00 pm Free bicycle maintenance
12.00 noon Guest Speaker
Rob Wood, Nuclear Disarmament Party
Shortland Union Courtyard. Introduced by John Nolan-Neylan, President of the SRC. Also, Caroline Deere from Aseed on The World Bank and the Environment.
Entertainment.
1.00 pm New buildings/landscape tour of campus
Tour Leaders: Mim Woodlands and Kynan Buckingham
Meet at Chancellery Forecourt
1.00 pm North East Forest Alliance Workshop, Ritchie Room
All Day Static Displays

Friday, September 16
9.00-6.00 pm Environmental Forum
Speakers include Mr. David Churches, Sydney Organising Committee for the Olympics; Dr. John Pollack, Sydney University; Mr. Bruce Peterson, Hunter Water Corporation and Dr. Gary Jones, CSIRO. Theme: Innovation. At the Industry Development Centre.
9.00 am-5.00 pm Mass Tree Planting Activities
Meeting points are as follows:
9.00 am-11.00 am Scobie Heath
11.00 am-1.00 pm Union Bridge and West Entry Bridge
1.00 pm-2.30 pm Industry Development Centre (formerly Hunter Technology Centre) and Oval No. 4, behind Chancellery
2.00 pm-5.00 pm Engineering Bridge and Oval No. 4.
9.30 am-12.30 pm World Clean Up Day Activities
Collect and win!
Shortland Union
12.30 pm Free Barbecue for Clean up Day Participants
Bar on the Hill
1.00 pm Campus Walk
Tour Leaders: Kevin McDonald and Glenn Albrecht
Meet at Chancellery Forecourt
4.00-6.00 pm Planting Party
Music, barbeque and prizes.
Bar on the Hill

Saturday, September 17
7.00 pm Night Fauna Spotting
Tour Leaders: Mim Woodland, David Wilks and Karen Gray.

Bushland Regeneration Supervisor, Mim Woodland, introduces a group of school children to the wonders of the University's bushland.
The children had elected to participate in the Environmental Studies workshop as part of the Department of School Education's Vacation School for Gifted and Talented Children.
Photo by Ken Scott.