The title of our discussion today is a very significant one — universities are being asked more and more insistently to examine themselves, their aims and methods, and to justify these in terms of the needs of society today. The question is asked from all sides — by Governments who are required to provide for the increasing financial needs of universities, by radical students with their catch-cry of "relevance" and by the public at large, viewing the activities of those same students in a different perspective.

Some of this examination, and much of it is self-examination, is good and necessary and the universities will be all the better for it. Much is, however, in my view, somewhat mistaken and misleading. This in itself is of no great importance, since universities should thrive on disagreement and dispute, but there is a good deal of conformist thinking in many places and it is vital that the questions should be examined fully and frankly. I hope to do a little of this today.

In an Australian context there are, I believe, several separate questions which we should discuss concerning the role of the universities and it may help to have these clear at the outset. Those with which I intend to deal are

(i) the role of the universities in professional education
(ii) the role of the universities in general education
(iii) the role of the universities in research
(iv) the relationship between universities and other forms of tertiary education, particularly colleges of advanced education.

The viewpoint which I will take is a university one, since other speakers will look at the problems from government and community viewpoints. I should, however, make it clear that I can make no claim to speak for the general community of university interests so that what I have to say is, to some extent, a personal view.

Professional Training

The training of graduates to enter certain professions — law, medicine, engineering — has become such an accepted part of things that it now represents one of the most important tasks of a university and we cannot look to any great change here in the immediate future. We should note, however, the rather peculiar status-striving which leads to particular professions being designated as university courses and others being relegated to separate and different institutions.

Law and Medicine have been long established in the university — Theology, which used to share their position is now nearly forgotten. Engineering and Architecture are, more recent additions, though their place is secure, and so are Agriculture and Veterinary
Science. The lines then begin to blur a little — the training of secondary school teachers is “in” but that of primary teachers is “out”, social work and physiotherapy are marginally “in” but nursing is “out”. Accountancy is “half in” and business management rather less than that. There are obvious pressures from all these “nearly-in” fields to become identified with university studies and thus to increase the prestige of their profession.

This faces the universities with a great problem. All these professional areas are socially important and it is important that their practitioners be as well trained as possible. Should this training, however, be given by the universities or by some other institutes? On the one hand one can argue that an accountant or a salesman or a carpenter can benefit from close contact with other young people studying poetry or physics or economics, but if the university is simply to be a universal tertiary training institute it will lose all those distinctive qualities which make it a university.

These qualities would argue, come essentially from the existence of a substantial body of students studying academically tough disciplines for their own sakes — things like Mathematics and Chemistry and Latin and Music which are, it is true, often practically useful but which are not studied for this reason alone. If these students become a small minority then the university will have become a trade school.

I believe that many universities, following a bad American example, are drifting in the wrong direction here. New “professional” courses should not be offered with little thought simply because a demand exists. Rather, the universities should ask whether there is something special about this particular profession which can be supplied only by a university and not, for example, by a CAE and, conversely, whether the study of this professional discipline can contribute something to the university which will be of value to its other students. Unless the answer to both these questions is “yes”, then it should stay outside the university.

I have purposely refrained from expressing my own views on some of the newer contenders for university recognition and, indeed, on some of those which have recently made the grade. A close examination (and in some cases a re-examination) is urgently needed!

**General Education**

Turning now to the question of general education, we find at the same time one of the greatest strengths and one of the greatest weaknesses of our university system: the central touchstone of purpose within a university has always been supposed to be the disinterested pursuit of knowledge and, unless this is preserved, the university is that in name only. We recognise, of course, the vast gulf between the ideal and the reality, but unless the ideal is cherished we are lost.

This pursuit of knowledge takes place, of course, on many levels. The student should be exploring, with the guidance of his teacher, the carefully cultivated and well mapped fields of established understanding. The teacher, to keep his mind awake, must either work at the edges of the field where a way can be found through the woods to fresh pastures or, by careful re-charting of the known fields, recognise new links and patterns among familiar things. These twin fields of research are scholarship are the life-
blood of the university and to them I would add a third which is often neglected – the dreaming of dreams, the seeing of visions, the creative urge of the artist. This has its part in all fine research and scholarship but is finest in the musician, the poet, the painter. It is a lonely “pursuit” whose rewards lie with posterity. I would like to see our true universities more active in this realm.

Studies like these are mostly concentrated in the faculties of Arts and Science and these are likely to continue to be backbone of all the universities. We must not delude ourselves, of course, that the students of the faculties are, in the main pursuing knowledge for its own sake, but at least few of them have any more practical aim in view. A select few may go on to advance knowledge and for the rest, what they have studied serves as a sort of general education.

Here it is that the universities have fallen into another trap. In times past a solid grounding in the Classics was considered adequate preparation for a British colonial administrator and, with all their faults, this seems to have served most of them pretty well. The current catch-cry call for “relevance” shows what has gone wrong. Instead of a more-or-less mind stretching general education, what is demanded is a set of ready-made opinions and scraps of knowledge applicable to the problems of today. I will refrain again from naming the subjects concerned but give instead what I believe to be a generally applicable criterion for the appropriateness of university courses:

“Any discipline in which an average student can have a valid opinion to express before completing three years of study is not at a level of development appropriate to a University.”

I state this with conviction and leave you to try the tests for yourself.

There are, of course, many issues on which university people are (or should be) well informed and whose content or level of development does not let them comply with the criterion set out above. I do not mean that such courses are trivial but simply that they are inappropriate as disciplines in a university. They should, by all means, be made available as general interest courses through adult education departments, “open university” radio and TV programmes and the like and should provide material for discussion in the university over cups of coffee, but let us not make them the backbone of our curricula.

I believe, in short, that the universities should also have a concern for general education outside the confines of degree courses. Australia is singularly backward in making any use of radio and television for this purpose. The ABC does its best with a small budget and a lamentably limited access to broadcast and TV channels; the commercial networks are devoted to the pursuit of the lowest common denominator in all things. There is, however, a ray of hope in the long-awaited report of the Broadcasting Control Board on the introduction of FM broadcasting. If this recommendation is made and accepted then perhaps we can look forward to an educational network on which I hope the universities will play their part.
Research

"Research is part of the life blood of a University”. That is a statement which we have probably all made and we are familiar with the usual arguments in its support. I will not repeat them now, but give instead some thought on the type of research which should be done in universities. The answers here may differ from one country to another and in Australia cannot help but be influenced by the existence of large government research organisations like CSIRO.

The purposes of university research are three-fold: to benefit the staff member, to benefit his students and to benefit the subject. Let us look at these in order.

A critical mind requires continual sharpening and, if university staff are to work effectively, they need continually to face new questions. In the sciences this is best done through research and in the arts through scholarship — and I think it saves much confusion to maintain a clear distinction between these two terms. From this point of view the actual research topic is of little moment, except that it should present a challenge, though there are obvious side benefits if it is of potential interest to others so that it merits publication.

Students, I believe, can either benefit or suffer from the effects of the research of their teachers. For advanced students who spend an apprenticeship in university research, the benefits are clear and the losses negligible. It is the ordinary student we should consider. The gains here come from the sharpened perceptions of the teacher, the losses from his preoccupation with research instead of undergraduate teaching. For the below-average student the gains are negligible and the losses may be great. The balance varies from one individual to another and it is probably only the individual staff member who can adjust it.

Finally the research itself. I firmly believe that the research done in universities should be that which can demonstrably be done better or more appropriately there than in other organisations. Big team efforts, crash programmes and short-term ad hoc research should not take place in universities except in time of emergency — all these are better carried out by government agencies or by industrial laboratories. University research should, as a rule, be fundamental, long-term and speculative. It should also, I think, be generally individual. Of course there will be exceptions and a general mix of projects, but this should be the pattern aimed at.

Relation to Other Organisations

The clearest and most pressing problems about the future role of universities in the community are posed by the development of competing institutions like the colleges of advanced education. If the distinctions between all tertiary institutions are vague and ill-defined then social, rather than academic, pressures will convert them all to universities and because there will not be enough good students to go round, a clear pecking-order of universities will develop on the American pattern. It is by no means sure that existing universities will remain near the top of this order and quite extraneous influences may be decisive. The alternative and I think the only rational course is for the universities to define more clearly their own role and to do it in such a way that the distinction is clear.
There is unlikely to be any realistic result from the contrary procedure in which the universities try to define and limit the role of the colleges.

Let us look, then, at what should be the distinctive features of universities, compared with other tertiary institutions, and see what the maintenance and refinement of these features implies for the future:

(i) universities should provide the highest possible level of education for those members of the community best fitted to profit from it.

Any reasonably dispassionate look at university entrants must convince anyone that at least one third of them should not be at a university at all — their basic training in the common skills that should be learnt at school is poor and many of them have no real interest in university studies. These two groups are, I think, at the root of many problems at the university. Having arrived there in some way, one group finds it is not what they expected. They take a relatively light load of easy “waffly” subjects (and we all know which ones these are in our own universities) and, working just enough to avoid being thrown out, spend the major part of their time and energy complaining. At the other end of the scale, and generally much more numerous, we find those hard-working but sufficiently intelligent people who just fall gradually by the wayside.

The universities then, should be much more selective — but here we find the problem: how is the selection to be done? I heartily agree with the Australian Union of Students that the selection should not be on financial or social grounds, that tertiary education fees should be abolished and the means test on Commonwealth Scholarship allowances removed. These measures will take time but could reasonably be achieved. So could an expansion in the number of scholarships. But this evades a major part of the problem — within this framework the universities need to be more rather than less selective and the question is “how?” Our colleagues in the field of Education have worked long but have failed to find any test better than the present matriculation exam — indeed the “short-answer” papers and similar things which they have introduced into that exam seem to have reduced rather than increased its productive power. Perhaps the answer is to admit fairly liberally to first year and then exclude quite drastically those who fail. This is a wasteful procedure and I hope that some alternative will soon be found.

There is, however, I believe, no substitute for a decreased percentage university intake. We are already producing more graduates in most fields than can be absorbed by society into the sort of jobs they feel they should have, and the immense “tail” of unsatisfactory students in all universities means either that special lower-level courses must be devised for them or that they will hold back those students who are properly qualified for university study.

Such a levelling-off of student numbers in universities, let alone any decrease, poses severe problems, however. An organisation is only really healthy while it is growing — in a stationary situation the dead wood tends to accumulate. Perhaps all we can hope for as a compromise is a decreased rate of growth accompanied by a periodic pruning operation on existing staff and teaching fields. In this way, to pursue the botanical metaphor, we may ultimately nurture a well-proportioned, thriving and productive tree.
As a second guide to the future I would suggest

(ii) universities should pursue research and scholarship at the highest level without having regard to the immediate practicality of its findings.

By this I do not mean that universities should eschew applied research but rather that applicability should not be a criterion for the support of university research and scholarship, only quality. Lest this seem an "ivory tower" attitude, I should point out that this is the policy adopted, for sheer long-range business reasons, by the largest and most successful United States industrial laboratories. It also appears, I am glad to say, to be the view of the Australian Research Grants Committee.

As my third guide line, I would reiterate a point I made earlier

(iii) universities should not offer courses which might equally well be offered by more specialised institutions but should concentrate on those disciplines for which the broad sweep of university studies is important.

As a concrete and, I think, non-controversial example, I believe that a special-purpose CAE, rather than a university is the appropriate home for paramedical training.

Finally, and here both as a necessary reform and to help with the distinction between university and CAE studies, I would suggest

(iv) All university degree courses should extend over a minimum period of four years.

Those of us in the sciences, particularly, know how recent changes in the secondary school systems over much of Australia have reduced the level of understanding and technical proficiency of the average university entrant in science and mathematics and I suspect that the same is true in many other, though not all, fields. At the same time the amount of material of which even a pass graduate should have some grasp is increasing rapidly. The only solution, to avoid overcrowded syllabuses with no time for thinking, seems to be to extend the length of the course. New degree courses in most fields are now generally of four years duration and it is, to me, silly to suppose that the more rigorous and basic arts and science courses can be completed in less time.

A set of criteria like this, by limiting the scope of universities should also provide an appropriate field for the colleges of advanced education. These colleges could and should provide an alternative form of tertiary training for those students who at present fail or are unhappy at university. Let us frankly admit that most of the best minds should go to a university but let us also remember that these represent a small fraction of those who want and can profit from tertiary education.

I would like to see CAEs as providing, on the one hand, fairly well defined courses leading to qualifications in business, agriculture, industry, engineering, paramedical studies and perhaps teaching (although this last may possibly be more appropriate as a university course) and, on the other hand, providing a range of "liberal arts" courses at a level appropriate to the top 20 to 30 percent of the population, but not for the top 5 to 10 percent who will go to universities. All these courses should, I think, be rather shorter than university courses and should start at a lower level — unless this happens we will just have a conglomerate university system with even more problems than we face at present.
I think that we must also seek a distinction between universities and CAEs at postgraduate level, and here too I believe the two types of institutions should be complementary. The proper type of postgraduate training in a university is a research degree in which the techniques learnt earlier are applied to the investigation of an individual and challenging problem. The proper type of postgraduate training in a CAE, on the other hand, should be a diploma related to the acquiring of some particular technique or skill. Thus we might have diploma courses in foreign languages, in computing, in electronics or a host of other things and it may well be more appropriate for a university graduate to go on to take a CAE diploma than for him to do a research degree.

University Involvement in the Community

So far I have spoken almost exclusively about the educational role of the universities because I believe this to be their most important function. Questions are asked, however, about a more direct involvement of universities in community affairs and it is appropriate to examine this problem.

On the one hand there are those who would argue that the only role of the university should be through its teaching and research function and through the involvement of its members and graduates as individuals in community affairs. On the other hand we find those extremists who view universities as the focal points for social change through direct and even violent participation of staff and students as a group. The ideal lies, of course, somewhere in between but, in my view, much closer to the position taken by the former group.

If we look at the radicals, to use a convenient tag, we find that they are, for the most part, very little interested in any of the traditional university disciplines or in the prime purpose of a university of teaching, research and scholarship. Rather their concern is with those coffee-table subjects in which one can become an expert by reading a Penguin book or by attending a course of six seminars. They are also, by and large, people lacking in emotional as well as intellectual maturity (as can be seen by even a cursory study of their personal relations) and whose main quarrel with society is that it has not given them personal satisfaction for the asking.

It is, of course, legitimate and necessary to question the values and methods of contemporary society and it is entirely appropriate that intelligent young people in a university community should do this. We should, perhaps, rather show concern that most political activity in universities is left to a noisy minority in the “soft” subjects whose connection with the true spirit of the university is so tenuous.

But to turn the universities into social instruments is to negate their prime purpose. It divides their members into two groups, the “students” and the “agitators”, the former being not concerned and the latter too easily led by demagogues for their own purposes. In some countries, this has almost destroyed the universities and with them those strongholds of liberal thought which should at all costs be preserved. Let us hope that a similar calamity can be averted here.
At the other end of the spectrum, the "ivory tower" attitude tends to deprive society of many benefits which the universities could easily confer without loss and even with some gain to themselves. Now I am not against ivory towers — indeed I believe them to be one of the most important features of a university. But they should be personal rather than institutional. The view from one's own ivory tower is individual and may give a fresh perspective on the countryside and, though we may not wish to take in non-academic tenants, we may well consent to pass around a set of photographs taken from our eyrie!

To be more prosaic, I think that universities can make a direct contribution to the cultural life of their community through books, talks, films, open-days, short courses and the like and that they have nothing to lose and much to gain by doing so.

If we accept, as we must, that universities have a prime role in particular professional preparation, then the universities should undertake, to a much greater degree than at present, a system of continuing professional education for graduates. This is done now in fields like medicine, but in too many other areas it is neglected or left for others.

Finally, or course, we should recognise that in technical fields university laboratories are incomparably better equipped than are those of industry, hospitals or even some government agencies. It is often possible for these facilities to be made available in a cooperative way to the mutual advantage of the university and the other partner.

Conclusions

Having made these qualifications, I must repeat that the major role of the universities in the community and their main contribution to the development of society should continue to come from their training of a relatively small fraction of the youth of the community to the highest possible standard in certain disciplines.

Universities, in their own interests and those of society, should preserve a distinct identity in the spectrum of tertiary education, for unless we have diversity we will almost inevitably have mediocrity. To this end universities should reduce their rate of growth and concentrate on quality rather than quantity. They should recognise that not all tertiary study requires the particular environment which they can provide and that many subjects might be taught equally well or better in other institutions, this statement applying even to some disciplines at present accepted in universities.

To draw these limits wisely and flexibly will require immense skill and judgement, for an error in one direction will lead to universities drifting too far out of touch with contemporary society, while an error in the other direction will give an amorphous and unstimulating educational system. Perhaps we have already gone too far in this latter direction and the only solution will be to develop some new sort of prestige institution to take over the task which universities should be doing — I hope not, but the choice will have to be made very soon.