Editor's Note: This session commenced with presentations by Dr Frackmann and Dr Howard, both of which are reproduced here in edited form.

Introduction by Dr Raj Sharma

John Muffo has painted the broad picture about the development in Institutional Research and its future directions. In the next session two international speakers give, within this broad picture, more details regarding trends in Institutional Research in Europe and America.

Our first speaker is Dr Edgar Frackmann, Head of Department of Higher Education Information Systems from Hannover, West Germany. He holds an MBA and a Doctorate in Economics from the Free University in Berlin, West Germany. Higher Education Information Systems (HIS), is a publicly financed central research and service institution for German higher education. Dr Frackmann’s department focuses on information systems development, higher education policy management, and organisational research and consultancy. Dr Frackmann has published extensively on administrative and information systems in higher education, higher education management, problems of financing higher education, and performance indicators, which is emerging as a fundamental issue in Australia, New Zealand, and many other countries. His current research addresses management computing and executive information systems. In his presentation in the parallel session, he will be sharing some of his ideas on this topic. Dr Frackmann is active in a number of organisations, including the Association for Institutional Research and I believe, was instrumental in setting up the European AIR as well as chairing it.

Dr Edgar Frackmann - Trends in European Institutional Research

(edited transcript of verbal presentation)

Last year, I organised the 11th European AIR Forum. It had been 11 years since the Forum had been held in Germany, and I really had to ask myself what the term ‘Institutional Research’ meant to the German audience because the Germans had relatively little involvement until the advent of the European AIR. I would like to share with you some of the results of this reflection. [In my keynote presentation, I will go into more details.]

The term ‘Institutional Research’ originated in the USA. I believe that one can identify four basic elements of the American definition.
First Institutional Research is located within the higher education institution

Second It is primarily a service, in contrast to fundamental research

Third Institutional Researchers are mainly providers of data

Fourth The main recipients of these services seem to be institutional management

Many reasons relating to the past, the present, and the challenges European higher education is facing in the 1990s, mean that neither the term ‘Institutional Research’, nor its USA meaning, fit the European higher education scene. As a result, the term is seldom used in Europe. Whilst our offices may be comparable with what are called Institutional Research offices in the USA, they are not identified as such. In Germany for example, they are generally called planning and information centres. The work of these centres relates to delivering data to state and federal government rather than to institutional management. Moreover, these offices have administrative functions; and one indication of this is their location in the hierarchical line of the administration rather than as a staff unit of the chief executive. In Germany, these offices have responsibility not only for providing information and data, but also for administrative computing and information systems.

Institutional Research, in the sense of being located within the institution, does not accurately describe the German situation because offices providing data equally exist above the institutional level. An example is my own institution (HIS), financed by the states for undertaking ‘Institutional Research’ in the sense of providing data and information about the overall higher education system.

As we look at the considerable challenges and changes now facing German and European higher education, the original American meaning of Institutional Research still seems only partly applicable. Let me give you some reasons for this contention.

With more autonomy being granted to the institutions, and given the European context, the first and main recipients of information may in the future be the institutions themselves, instead of government. That is, Institutional Research will become more and more a task being fulfilled within the institutions, rather than one of providing data to external agencies. Let me refer to John Muffo’s point about the flat organisational structure of the institutions. This seems to be even more true for European and German institutions than for American institutions; the power is at the bottom. I think that Institutional Researchers must therefore serve not only the top management but also the departmental level of institutional management. This again is because the flat organisational structure results in the main responsibility for teaching and research lying at the departmental level.

In the context of European higher education developments, many far reaching decisions will need to be made on structural, organisational and strategic issues. Therefore, Institutional Researchers in Europe, and I think in the USA, must broaden their emphasis on quantitative analyses and techniques in favour of more scientifically based analyses and what I would like to call ‘conceptual design’, in the sense of real decision support. We in Europe think that the institutionalised service function of decision support, like Institutional Research within the institution, has to be accompanied by ‘research on higher education’. There are indications that European governments are becoming more inclined to finance research institutes or chairs focusing on the science of higher education. For example, in the Netherlands, the Centre for Higher Education Policy Studies (CHEPS) has been set up at the University of Twente, where we had our EAIR Forum in 1987.

Let me conclude with a brief outline of the main directions which I see for Institutional Research in Europe.

The first trend is the development beyond basic quantitative analysis, that is - simply delivering quantitative data, toward what I call ‘conceptual design’ in the sense of real decision support, and the associated shift from the government-engendered data provision to more institutional support. There will
most probably be more institution-based research, compared to what was the case in the past where Institutional Researchers mainly had to deliver data to the government.

Internationalisation is the next trend. This theme is associated with Europe’s attempts to develop closer links through the European single market development. Institutional Researchers will thus have to look not only beyond the boundaries of their institutions, but also across the borders of their states and systems. There will be both increased competition and an increased need for cooperation amongst institutions and across systems.

There will be a shift from input data to output data, to performance and quality information. There is a new emphasis on teaching and educational outcomes, on the quality of educational processes. In Germany, this is linked to the rather extended duration of our higher education studies - about seven years on average. The public, and employers, are scrutinising the universities more than in the past. This is, in effect, a hidden discussion of ‘quality’. There will be a need to use, and deliver to institutional management, more external and comparative information and data. In the past, management dealt only with the data of their own institution, and were not interested in comparisons with other institutions. Because teaching and educational outcomes are now being subjected to greater scrutiny, Institutional Researchers will become more involved in the organisation of teaching and learning processes. In the past, the students themselves were held responsible for their educational careers, whereas now the institutions are held largely responsible. This might represent a break in the tradition of the German research universities, with institutions needing to care more about their organisation of the teaching and learning process. There will still be a focus on quantitative information, but the interesting thing is that it will be quantitative information which tries to capture qualitative issues. Performance indicators, of course, is a topic discussed seriously in Germany as well as elsewhere in Europe. Institutional Researchers who tackle this topic will be forced to provide easily understandable quantitative information, on qualitative issues. If they don’t, non scientific endeavours will provide this information, and this will not be as valuable as information based on scientific enquiry.

My next point concerns the development of executive information systems (EIS), whereby institutional executives might use information technology themselves to generate their own information and data. In the long run this will involve a shift toward Institutional Researchers providing the information technology to the managers, instead of providing the information itself. Institutional Researchers will also need to use more information technology themselves, and one of the prerequisites of Institutional Research will be information technology literacy.

Also, as I mentioned previously, one of the necessary developments of European Institutional Research will be its support by complementary ‘research on higher education’.

To conclude with an expression which I particularly like to use, in future the overall orientation of the work of Institutional Researchers in Europe might be characterised as contributing to a self-reflection on the part of the higher education system, looking at its components and its structures from the institutional perspective.

Tomorrow I will give more background on the developments leading to these new topics for Institutional Research and new roles of Institutional Researchers.

**Dr Richard Howard: Trends in American Institutional Research**

*Introduction by Dr Raj Sharma*

Thank you Edgar. Our next speaker is Rich Howard and most of you have met Rich through the workshops. Rich presently serves as the Director of Institutional Research, and a Visiting Associate Professor, at the North Carolina State University. Quite a few Institutional Researchers in the USA have a dual role in academia and as well as in the management of Institutional Research. Before this Rich was the
Director of Institutional Research at West Virginia University. Rich has been elected as a member of the AIR Executive Committee, with responsibilities for the associated professional development activities. He has had recent publications in the area of Decision Support.

An edited version of Dr Howard’s presentation

John Muffo has characterised the development of Institutional Research in American higher education. It is difficult to characterise the profession, because operationally, it takes many different forms across the 3,600 institutions in the USA. While reporting seems to be a fairly consistent common denominator, we all have unique features which make it difficult to characterise the profession. In the USA as in Australia and many other countries, there are different kinds of institutions, and this often dictates a different direction, focus, or set of expectations for the individual Institutional Research office. At my institution, in a large research university (North Carolina State), the Office of Institutional Research has a broad range of responsibilities that are not ‘operational’ in nature. I do not register students, and I do not collect data for the student admissions office, or from elsewhere unless it is for a special ad hoc study. Instead, my base of operations is institutional data from operational data bases whose creation and maintenance are the responsibilities of other administrative or support units. I am not in the business of collecting, storing, or maintaining data. I am in the business of converting that data to information for decision making across the campus, whether at the department level, the Deans’ level, or that of the Vice-President or President. I work with all those levels of administration to support their decision making and planning. At other institutions, the role of the office may be more limited, or include academic or administrative activities.

As accountability in the USA has become more prevalent in higher education, the demands for institutional reporting have increased greatly. We talked about the ‘chicken and egg’ issue in the workshop yesterday. I am not sure which came first, the computers which allowed the accountants in Federal, State governments to ask for more data, or the need. In any event, computer technology has enabled the generation and reporting of massive amounts of institutional data. It seems that with every new leap in technology, the demands on our institutions for more data have grown exponentially. Much of our institutional activity is reported, and we have developed methodologies within the Institutional Research community to provide consistent and reliable data for reporting purposes.

In many institutions, the data developed for reporting purposes also is the basic data from which information is created to support decision making and planning. The extent that this happens in Institutional Research offices across the USA varies. Often, in smaller institutions, the Institutional Research directors also hold such titles as admissions officer, registrar, and financial aid officer. Their Institutional Research roles involve maintenance of the reporting status of their institutions. Their other operational responsibilities take up more time, and are in fact more important to the ongoing function of the institution than is their Institutional Research function.

It is difficult to characterise an Institutional Research office in the USA other than through the reporting function. If I had to do so, I would characterise its primary role as supporting and promoting the management and leadership of the campus, administrative and academic. How this occurs varies greatly, and relates in large part to the size and complexity of the institution. The organisational location of the Institutional Research function at the institution can also affect the role of the office and how it functions.

Moving beyond the basic reporting function, what do Institutional Research offices do? I like to think that my office is doing ‘some’ research. Sometimes I will delve into some of the things which John Muffo mentioned; to study the learning process, to understand why two students with the same entry characteristics perform very differently over the course of their academic studies. How do we predict success? We can fairly accurately predict which students will not succeed, but it is still very difficult to identify a student that will be successful at the time of admission. Students who enrol with very good secondary credentials often are unsuccessful, at least in my institution. Thus, these questions are very important.

Whereas an Institutional Research office of one or two people is typical across the USA, especially in smaller institutions, I have a rather large staff, most with post-graduate academic training. This gives me
the freedom to investigate these issues, and, I believe, to become more involved in the management and leadership of the campus. Let me distinguish between leadership and management, because I think it’s critical in our support role. If you do not understand the difference between leadership and management and try to support the leadership of the campus with management information you will often be unsuccessful because a different type of support is needed. Leadership, in my mind, is a function which has both an institution-wide context and influences the future direction of the institution. Management on the other hand typically is an activity which is concerned with the day to day operations of a specific unit within the institution. It is critical that both of these functions be supported with appropriate data and information. In general, it seems that as one moves from the support of leadership to the support of management, the form of support tends to be more data based than information based.

Personal characteristics of individuals in the Institutional Research office and the campus administration also result in different office profiles. I tend to have a high profile office. This means that I and other members of the Office staff work directly with the leadership and management of the University. At the same time internal and external reports are an important part of the Office function. Failing to meet the time frames associated with these ‘bread and butter’ activities with consistent and accurate data will often destroy the Office’s credibility with campus internal management and result in negative pressures from external agencies. Other offices, even larger offices, maintain a low profile on campus, responding to reporting mandates and working through the organisational structure of the institution to support leadership and management. Again, campus personalities and leadership styles will dictate how the office will function.

In my view, two rather new themes influencing higher education in the USA, are forces resulting in the creation and direction of new support activities in Institutional Research offices.

The first theme is accountability, and I think that there are two types of accountability. The first is the detailed accounting for public funds provided to the institution. This began to take its present form some 15 to 20 years ago and has grown as discussed earlier. The second form of accountability is a fairly recent mandate, known as institutional assessment. That is, demonstrate the effectiveness of programs (academic and support). Often the office of Institutional Research is asked to help identify measures which will support the evaluation of academic programs in relation to not only the student but also the faculty and the institution.

The other theme associated with accountability in the USA is competitiveness. In North Carolina, for instance, there are sixteen public universities, competing for a limited amount of public resources allocated to higher education by the State legislature. We are also competing as a higher education function against other State functions - prison systems, welfare and social systems, highways, etc. At the same time, we are competing nationally and world-wide for students, graduate students in particular. Can they come to our institution and be exposed to as good or better an education as if they went to Michigan State, Harvard, Oxford, or wherever? One of my roles is to develop a profile of North Carolina State University which illustrates that students who come to North Carolina State University will get jobs or education, as good as, if not better than they would anywhere else. Many institutions are also competing for undergraduates students. At North Carolina State we have many more qualified applicants than we could ever accept. In order to maintain this position, our undergraduate admissions office has representatives at many ‘College Days’ which are held at high schools throughout the USA. With representatives from other institutions, our admissions officers make themselves available to graduating students. Much of the information which they provide to these students is developed by staff in the Office of Institutional Research. The goal in these activities is not only to attract students but to identify and give special attention to those who have performed at the top of their class.

This leads to the question of how to support marketing activities in an Institutional Research function? In general, statistical profiles of the institution, profiles of students and their performance, profiles of student performance in similar institutions, and profiles of the performance of students with particular backgrounds, provide relevant information to support the admissions officers. In addition, discipline specific profiles are important support information in the recruitment of graduate students.
In sum, this competitive environment provides a driving motivation for Institutional Research. Fuelling this environment is a general restriction of resources available to higher education in the USA. It seems that we simply do not have as many resources as we have had during the past ten years. Competition in all arenas has become very real.

John Muffo has already mentioned that outcomes assessment is now mandated by accrediting bodies. In general there are two types of accreditation: regional and professional. Each institution is reviewed by a regional or State accrediting association periodically. In this process, the institution is accredited. Without regional accreditation, an institution is not eligible for federal financial aid. All institutions (both public and private) receive considerable federal funding, whether it be through research grants or financial aid for students. Without regional accreditation an institution would be in serious financial trouble. Institutions therefore spend considerable resources on the self-study process in preparation for the accreditation visit, relying heavily on the Institutional Research office. While the different regional accrediting agencies are at different stages in requiring institutional assessment information, all are moving in the same direction. This is also the case with professional accrediting agencies, in which specific disciplines are accredited. In this case accreditation implies that the program meets the standards of the profession and that upon graduation students will have been exposed to the academic training necessary to be successful in the profession. Without professional accreditation, it is difficult to attract either the best faculty or students. In general, this type of accreditation is relevant only for professional programs (business, engineering, medicine etc.).

I believe that in the future, accountability demands, combined with an increasingly competitive environment, will be influential forces on the leadership of higher education in the USA. I suspect that improving computer technology will lead to increased demands for data. Institutional Research will be performing more and more microcomputer and mainframe interface activities. I recall that at previous AIR forums, we used to have great demand for workshops to teach people the skills associated with microcomputing, i.e., spreadsheets, PC statistics, graphic packages, etc. We are now finding that people tend to have these skills or can get them easily on their campuses, and want demonstrations of how to apply those skills to particular situations. Thus, a shift has taken place. It is common now to have a ‘micro’ on one’s desk. Nearly all offices possess the technology. John Muffo referred to the decentralization of computing, and this raises the parallel question of the decentralization of the Institutional Research function. More and more mid-level and senior administrators in higher education have computer skills. While they may not sit down and use computers themselves, they know what computers can and should be doing for them, and often, they want the capacity to analyse the live data themselves. Thus Institutional Research offices like mine, especially in the larger institutions, are beginning to attempt to develop strategies which will help to distribute databases and as such support ‘Institutional Research’ activities within the colleges and departments that make up the institution. My goal is to provide institutional managers with a reliable and flexible database that they can analyse within the context of their programs and external environment.

Summing up Institutional Research in the USA, let me first reiterate my earlier observation about the variability in different institutions of the role and responsibilities of Institutional Researchers. At some institutions, you still have people undertaking Institutional Research in the same way as John Muffo described it happening forty years ago. At other institutions, you will find very sophisticated approaches, particularly in terms of the application of computer technology. For the future, Institutional Researchers will experience an upgrading of technical skills, and knowledge of what can be achieved by the appropriate application of computer technology to support the leadership and management of the campus. How well we utilize these opportunities is the challenge now facing us.