This document contains an essay presented at the 2nd International Conference on Higher Education held at the University of Lancaster in England. The conference concentrated on the implications of mass higher education in the world. It is clear that many countries' education systems will have to change to undertake mass higher education successfully. This change will be implemented by the three main environmental forces acting on higher education: customer demand, manpower needs, and patron's influence. However, one of the most important characteristics of the system of mass higher education is that of offering opportunities for the intellect to be stretched to its capacities. The skill of working with people should be emphasized in mass higher education by giving lectures on noncognitive affective approaches to experience. Finally, there is a need in higher education to help people to learn the art of decisionmaking that includes scientific data, estimates of practicality, and a framework of ethical principles. To achieve this however, part-time teachers must be brought in from the world of decisionmaking to the world of the academic. (Author/PG)
The Structure of Higher Education: A World View

Eric Ashby
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FOREWORD

Eric Ashby has a secure position as the most eloquent spokesman for higher education in the Western world. For those involved in educational research he is the model of careful precision. For those involved in educational administration he is the model of patient understanding. For the writer or lecturer he is, to use the current phrase, “something else.”

Someone has said you can measure the importance of a man by taking careful note of who listens. We all listen and marvel at his capacity to penetrate the thicket of professional jargon and extract the idea almost hidden from view. But then having surfaced the idea he polishes it in his own unique style compounded of careful statement and great wit.

If the reader gains the impression that the writer of this introduction admires Sir Eric, the reader is profoundly correct. So we consider ourselves fortunate to have secured his consent to the publication of a paper that he gave to the recent 2nd International Conference on Higher Education at the University of Lancaster, England. ICED believes that its special audience will like to read it and leave it on the top of their desks for rereading.

James A. Perkins
This conference is about the implications of mass higher education; and I have to give a world view in 45 minutes! If my theme is to be clear a few of these minutes must be spent on a semantic distinction. The semantic distinction is best introduced by an analogy: everyone ought to have as much food as he needs, but not everyone needs or wants to be fed on caviare. Which, transposed into the key of this address, is that everyone in a society which can afford mass education is entitled to as much education (primary, secondary, post-secondary) as he needs, but not everyone needs or wants what we in Britain call higher—as contrasted with further—education. But this conference has preempted the term higher education, and you are an international audience; so it cannot be restricted in the way commonly understood in Britain. So I have assumed that higher education, as preempted in the title of this conference, includes all post-secondary education, and I am going to draw a distinction between vocational higher education on the one hand and non-vocational higher education on the other hand. Notice that this distinction cuts across some familiar boundaries. It puts into the same category the education provided by the faculty of medicine at Cambridge and by the department of catering at Colchester Technical College; and it puts into the same category Oxford Greats and WEA [Workers' Educational Association] courses on archaeology. Of course the boundaries between vocational and non-vocational higher education are blurred, but by and large vocational higher education qualifies a person to pursue a specific vocation or profession; non-vocational higher education does not. It may seem a perverse distinction, but I hope to show that it does make sense.
Higher education, defined in this way, is certain to become more than a minority interest. It has already, in two generations, increased by an order of magnitude, and it will do so again before the end of this century. That is why this conference has been called. That is why several countries have carried out sophisticated exercises such as the Robbins Report [Great Britain], the reports of the Wissenschaftsrat in Germany, and the colossal encyclopedia, already in some 30 volumes, of the Carnegie Commission on Higher Education in the United States. Yet in all these thousands of pages there is something missing. They go into great detail about increase in size of the system, about how the enlarged system shall be financed, about the way to make the system easier of access to all who need to enter it, about the cost-effectiveness of the system and its efficiency. But they have comparatively little to say about whether the system should change and what is to be its function in the society of tomorrow.

To me it is clear that the system will have to change in all countries which undertake mass higher education. 'More' does not mean 'worse', but undoubtedly 'more means different'. Already our plans for expansion may fail to meet the needs of the majority for whom the expansion is planned. So I hope one of the Working Parties will concentrate upon this question: in mass-higher education what are the educational implications of 'more means different'?

In the time that remains to me let me offer a conceptual framework into which facts and arguments can be conveniently fitted. In a different context I have used it before and found it helpful. This is the framework.

It is characteristic of higher education systems that they are strongly influenced by tradition. They display what a biologist calls phylogenetic inertia. This is not surprising, for one of their functions is to conserve and transmit the cultural inheritance. It is characteristic of them, too, that from time
to time they adjust themselves—sometimes painfully—to the social environment which surrounds them. There is an analogy, therefore, between these systems and biological systems: they are the resultant of hereditary and environmental forces, of nature and nurture. So universities, for instance, have everywhere a generic similarity and yet they differ greatly from one nation to another.

There are, therefore, internal and external forces acting on higher education systems and when all is well there is an unstable equilibrium between these forces. At present there is a worldwide instability and higher education systems are shifting, one hopes toward fresh equilibria, which will be different, of course, for different societies. But while the movement is going on there are strains and anxieties; we none of us know where the new equilibrium will lie. That is why it is disappointing that so much emphasis, by governments, by the press, and indeed within the systems themselves, is on how to get bigger, how to pay for getting bigger, and not on how to change.

Forces Influencing Higher Education

Let me illustrate this conceptual framework by a few words about the forces acting on systems of higher education.

There are three main environmental forces. One is customer demand: the pressure of students to get into colleges and universities and the curricula which they want when they get in. A second force is manpower needs: the ‘suction’ drawing graduates into employment, and therefore influencing curricula and certification. The third main force is the patron’s influence: for higher education systems are not (they never have been) supported by customers or employers; they are nowadays under the patronage, i.e. the ultimate financial control, of the state.
Hereditary Resistance

When forces in the social environment press for change in a higher education system they are likely to encounter two kinds of hereditary resistance. One is the inertia of the system to any change; and this is a virtue (though often an infuriating one), for systems do need some stability and the forces of customer demand, manpower needs, and patron's influence can be very capricious. The other resistance is not a negative one and it is much more important; it is the belief in the purpose of the system which is held by those who are engaged in it. For a higher education system has its own articles of faith by which its practitioners live and these are not always consistent with the demands which society makes on the system. These hereditary forces constitute what I have called the 'inner logic' of the system. It may show itself as the determination of a technological university to foster sandwich courses, or the determination of a faculty of arts to resist non-cognitive material in its curriculum, or the determination of a physics department to refuse a research contract. The inner logic does for higher education systems what genes do for biological systems: it preserves identity; it is a built-in gyroscope.

The balance between these forces differs in different countries. Thus in the Soviet Union manpower needs and the patron's influence play a predominant part, and inner logic is muted. But in the Akademi Nauk, to which the more distinguished scholars belong, inner logic plays a great part. In the United States customer demand has had a predominant influence, both on the size of the system and on its astonishing diversity; but the graduate schools are guided by an inner logic. In Germany, and until recently in Britain, inner logic has played a predominant part in the universities but in Britain the influence of the social environment (customer demand and manpower needs) has operated most noticeably on colleges in the public sector; in Germany on the Technische Hochschulen. In all these systems—even in the
Soviet Union—there have been healthy checks and balances between the forces. When there are no healthy checks and balances (as, for instance in some of the universities of India and Latin America, where the influence of inner logic is very weak) the systems fail to serve their societies well.

Social Changes

We are at a moment of history when the balance of forces in systems of higher education all over the world is upset by social changes, and fascinating realignments of forces are taking place. The central *motiv* of Robbins was to give priority to customer demand: a place in full-time higher education for every qualified candidate; this is already diminishing the influence of inner logic, and at the same time the influence of the patron—the State—is increasing. There is a backlash in the United States against the unmotivated student: the customers (estimated at 30 percent) who really don't want to be there; and a backlash too against one manifestation of inner logic: the determined efforts of many universities to devise freshman and sophomore years of general education. In Germany the supremacy of inner logic, cherished by the professoriate, has been shattered by the recent legislation for university governance, establishing the *Drittelparität* of professors, junior staff, and students. The shifts in equilibrium are complex and very diverse; many of them seem to be strengthening the influence of the social environment at the expense of the cultural heredity of the systems.

Now—as I said—forces from the social environment are capricious. It is therefore essential that those engaged in higher education should decide what each sector in the system stands for, i.e. their inner logic; and (in this context I am in favour of the "university militant") defend it against erosion from the currents of society. But the dilemma is that there is no consensus, even within one sector of the system in one country, about what higher education systems do stand
for. In Britain, for instance, should polytechnics offer a liberal education; should they promote research? Should universities enroll more adult and part-time students; should they offer a choice of easy and hard bachelor degrees? We are assuming (on both sides of the Atlantic) that growth, diversification of curriculum (such as area studies and interdisciplinary mixes) and changes in mode of government (such as student participation) will solve our problems. They will not. Our problems centre round a definition, for each sector of higher education, of its inner logic; which is another way of putting my question to the Working Party: what are the implications, for the inner logic of educational systems, of 'more means different'?

'More means different'?

To end this address I put forward, in a very synoptic way, some comments on this question. Higher education systems offer both vocational and non-vocational curricula. A common controversy is whether these two kinds of curricula should be in one kind of institution (the multiversity) or in separate, different, kinds. I think this controversy is fruitless and futile. Whether higher education is organised in a binary or unitary system is merely a matter of logistics; the boundaries of our binary system are dissolving before our eyes; and a good thing too. Universities have always mixed vocational and non-vocational studies, and polytechnics are already doing the same. It is much more important to reflect on the changes which may be necessary in these two kinds of education, wherever they occur in the higher education system.

Vocational higher education ends in certification of recruits as fit to enter vocations and professions. In many fields this education is obsolete in a decade or so, but the certification remains valid. It is a serious indictment of our higher education system in Britain (and indeed of most of those elsewhere) that there is no provision except at Birkbeck
College and in the Open University for the easy readmission of adult students for extended post-experience courses, to accord with the pace of technological and social change. But if higher education systems are to take on this burden, there will need to be a corresponding economy in the vocational courses given to young students. The Carnegie Commission has already proposed ways to do this for medical education, cutting a 4-year course to 3 years and offering honourable exits to higher education at 2-year intervals; and Professor [Brian] Pippard has proposed ways to do it in Britain for the education of scientists, restricting professional training to those who will become professionals. As more and more people aspire to post-secondary vocational education, the reasonable response would seem to be to offer it in modules in such a way that engineers, doctors, accountants, even lawyers, should renew their certification by returning to take modules in their expertise every decade or so throughout their careers. There is at present a built-in discrimination against the adult student. You realise how powerful it is when you recollect that when I mention "the undergraduate age group," or "people of college-age," or "the student-culture," you immediately think of 18-21 year-olds. If I speak of the "museum" or "library" age group, you would not have the same impression. This discrimination . . . must be dispelled if we are to have successful mass higher education.

It is right and proper that employers and professional associations and the state should influence vocational higher education but the authority for non-vocational higher education must be inherent in the inner logic of the system itself. This means that those of us who are engaged in non-vocational higher education must reach some consensus about why we are engaged in it. There is no problem about justifying to the public why they should pay for mass higher education for vocations and professions. But a great deal of mass higher education is going to be non-vocational, whether in universities or polytechnics or other further education
colleges. Why should the public pay for mass non-vocational education?

The difficulty is that this sort of education is pursued for a great diversity of motives; and I think the best approach to an answer is to give an example of one motive which—in my view—must be resisted, and one motive which must be encouraged. Of course there are other motives which I have not got the time to mention.

Motive to Resist

The motive which must be resisted is the pursuit of non-vocational higher education solely in order to get certification for a job. It is, of course, the employers who must be reformed first. They are doing a great disservice to higher education by using degrees and diplomas, which are quite irrelevant for the jobs they are filling, as filters for selecting candidates. As more and more young people go to college so employers raise the educational standards they require, yet there is a good deal of evidence that although credentials of this sort are essential for getting a job, they have little to do with how well an individual performs a job. I suggest that if non-vocational higher education is to serve its real purpose (which is to civilise people) it ought not to attract people who only want to be certified, not civilised. I can see only one way in which higher education systems can promote this, and it would be an unpopular way: namely not to certify non-vocational education, but simply to do something which was common in Scottish universities in the nineteenth century: issue class certificates to those who have attended courses and done the required written work.

In universities particularly we have, I believe, been diverted from the true goal of education (only in some subjects, of course) to the false goal of certification. Perhaps one of the uncovenanted benefits of mass higher education will be that a certificate which practically everyone possesses will no longer
be coveted by anyone. We can in any case expect that as a greater proportion of the age group acquires certificates of higher education, the salary differential between certified and uncertified will diminish. But, in my view, we who are engaged in higher education should do all we can to hasten this process. The way to get rid of elitism is not to lower standards but to offer a wide range of standards (which the whole system, but not the university sector, is trying to do) and—this is what is important—to do nothing which accentuates the status gap between those with different kinds of education (the gap is maintained, for instance, by degrees, gowns, classification—or at any rate the publication—of examination results). Our responsibility is to rid ourselves of the idea that an educated person is socially superior.

**Motive to Encourage**

Just now I said the purpose of non-vocational education is to civilise people, a shorthand expression which I must now explain, for it is an example of the motive for higher education which must be encouraged.

It is a caricature with that core of truth which caricature contains: that vocational education is concerned primarily with means and non-vocational education with ends. Not directly, of course. But the aspirations which a good teacher has when he is teaching any subject non-vocationally at the level of higher education (e.g. history of Germany or physics to students who are not going to become historians or linguists or physicists) is to carry the student from the uncritical acceptance of orthodoxy to creative dissent over the values and standards of society. Michael Polanyi put this clearly: the professional standard of science, he said (and it could be said of all knowledge at the level of higher education) must "impose a framework and at the same time encourage rebellion against it." The beneficial effect of non-vocational higher education is to lift the student from a level of conventional moral reasoning, to what Kenneth
Keniston recently described as the post-conventional level, where students are deliberately challenged "to re-examine assumptions, convictions, and world views they previously took for granted."* In a pluralistic society it is essential that as many people as possible are lifted from the conventional to the post-conventional level. I can do no better, to illustrate this argument, than to paraphrase two arguments made in Keniston's paper to the American Council on Education last year.

1. It is well known that the half-life of some technologies is less than the life span of an ordinary man or woman. We now realise that one consequence of this is that the half-life of some social institutions and cultural and moral values is just as brief. So people may not only become uneducated for the job; they may become uneducated for living.

2. Therefore individuals have to re-orient themselves during their lifetimes to new cultural and moral values as well as to new technologies: "If . . . technologies, definitions of truth, and conceptions of morality change within the individual's life-time, ironclad adherence to one set of skills, to one view of truth, or to the present moral standards of one subculture will leave the individual stranded, isolated, and displaced before he reaches middle age."**

We see the menace of obsolete, even atavistic, value judgments all around us. The prime aspiration in non-vocational higher education is to keep our society pluralistic, humane, and tolerant; open to alternative truths, able to distinguish prejudice from error.


**Ibid.
Of course much—indeed most—non-vocational higher education will fall short of this aspiration. But there is evidence that enlightenment has changed for the better the values of the ‘common man’. We no longer tolerate slavery, or child labour, or the worst forms of pollution. It can’t be proved; but it is likely that education has greatly contributed to these value changes. This is the justification for asking the public to support this sort of higher education on a mass-scale. “Seen in this light” (wrote Keniston) “the question is not whether we can afford universal higher education, but whether we can afford to be without it.”***

Implications of Mass Higher Education

I now come to the coda of my keynote address. Many controversial implications arise from this theme: May I draw the Working Party’s attention to three of them, which are particularly provocative.

The first is that mass higher education, like mass production, is a different thing from “hand-made” education or production. A lot of it will have to be impersonal, even using techniques such as video-tape, TV, and correspondence courses. The experience of the London external degree and the promise of the Open University show that this can be done successfully. But there are still two kinds of education which demand a personal teacher-student relationship, for which there is no substitute. One is vocational; it is education of master-craftsmen and artists. To become an engraver on glass, or a silversmith, or a solo violinist, there is only one recipe. It is to be apprenticed to a master and to submit to his regime of discipline. The other is non-vocational; it is the education of the innovators in intellectual life and the pacesetters in cultural and moral standards. For this, too, there is only one recipe. It is the sustained dialectic with a

***Ibid.
master whose own intellectual and cultural achievements are distinguished. So, within the system of mass higher education, there must be opportunities for the intellect to be stretched to its capacity, the critical faculty sharpened to the point where it can change ideas, by close contact with men who are intellectual masters. Not many students are fit for this austere discipline or are willing to submit to it but those who are must be able to find it, or the thin clear stream of excellence on which society depends for innovation and for statesmanship will dry up. Personally I am not in favour of these talented students being herded into special institutions. Talent and mediocrity can share the same central heating plant and cafeteria, and they should, for talent has to learn to operate in a world of mediocrity. And—as I said just now—I reject the assumption that academically talented people should be considered as socially superior.

My second provocative implication arises from the first one; and perhaps it anticipates what Charles Carter will say tomorrow. Cost-benefit analyses can be applied to vocational education; a vocational qualification probably puts up the earnings of the person who possesses it and possibly benefits the economy. But cost-benefit analysis applied to non-vocational education is a nonsense; indeed such education may be counter-productive, producing men and women who not only eschew high-income careers for themselves but even reject and oppose the commonly accepted norms of Western society such as the necessity for an ever-increasing GNP. Cost-benefit analysis can doubtless suggest ways in which mass higher education can be more efficiently conducted; but it would be positively inefficient to try to increase the efficiency of that sector devoted to minority “hand made” education. We still can’t teach or learn at this level any faster than our ancestors in medieval Oxford. An illuminating comment I heard recently in a discussion of the arts is equally applicable to this level of higher education: despite all our advances in technology it still takes 3 man-hours to
play a 45-minute Schubert quartet. Technology enables more people to hear the quartet; but technology never will improve the productivity of the performers.

Finally there is—and I throw this out as a possible theme for the Working Party—another and different conceptual framework which is helpful in some discussions of higher education. A person's capacity to contribute to society can be broken down into three different kinds of skill: skill in working with ideas, skill in working with things, skill in working with people. Traditionally in Britain the first skill has been taught in universities, the second in polytechnics, and the third is learnt, if at all, 'on the job'. Everyone needs a mixture of all three skills, though in different proportions. What we are now experiencing is pressure from the young to put more emphasis in higher education on the skill of working with people. I believe the young are right. And if they are, mass higher education—in the sense in which I use those words in this address—must take account of this.

How is this to be done? Not, I am sure, by giving lectures on non-cognitive, affective approaches to experience. These approaches are of course an essential ingredient of living. Institutions of higher education should of course provide opportunities for students to reflect on these things, just as they provide opportunities for physical recreation and for catering. But they should be part of the social environment of a college, not its narrow social purpose; that (I believe) ought to be confined to the cognitive, rational approach to experience, simply because that's what the teachers are competent to teach.

The Challenge

There is, however, another way in which institutions of higher education could impart skill in working with people. That is by the introduction of what Weinberg calls mission-
oriented studies. Universities are organised by disciplines. Even when attempts are made to have interdisciplinary studies, the style of teaching and research are discipline-oriented—solving selected problems within the discipline. But the traditional function of universities is mission-oriented: to educate a selected cohort of people to serve society. Service to society calls for skill in resolving problems arising from social, technical, and psychological conflicts. These problems are not generated within any single discipline, nor can they be resolved within a discipline. The incongruence between the discipline-oriented training which most students receive and the mission-oriented activities on which they wish to spend their lives afterwards is one of the causes of our present discontents with higher education. So there is a need—if we can do it—to include in higher education some experience which will help people to learn the art of that sort of decision making which includes scientific data, estimates of practicality, and a framework of ethical principles. This is a very difficult challenge. It would require, for instance, part-time teachers brought in from the world of decision making. If the challenge is not accepted, the outlook for mass higher education will be bleak.
International Council for Educational Development

The International Council for Educational Development (ICED) is an international non-profit association of persons with a common concern for the future of education and its role in social and economic development.

ICED's three major interests are strategies for educational development; the modernization and management of systems of higher education; and the international programs and responsibilities of higher education. In each area, ICED's purposes are to identify and analyze major educational problems shared by a number of countries, to generate policy recommendations, and to provide consultation, on request, to international and national organizations.

ICED's activities are directed by James A. Perkins, chief executive officer and chairman of an international board. Philip H. Coombs is vice chairman. The headquarters office is in New York City. ICED's European representative, Max Kohnstamm, president of the European Community Institute for University Studies, maintains an office in Brussels.

The main support for ICED to date has come from the Ford Foundation, the International Bank for Reconstruction and Development, UNICEF, and the Clark Foundation.
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