



**INSTALLATION SPEECH AT THE CAPE UNIVERSITY OF TECHNOLOGY
DR TREVOR A MANUEL, CHANCELLOR
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Programme Director
Deputy Minister of Education,
Chancellors and Vice-Chancellors,
Chairperson and Members of Council of the Cape Peninsula University of Technology,
Madam Vice-Chancellor, Senior Managers and Deans, Members of Senate,
Members of Staff, Students, Citizens of the Cape Peninsula,
Dear Friends

I have been obliged to reflect, since being approached a few months ago, on the practical role and duties of the Chancellors of South African higher education institutions.

You will appreciate that experience in my day-job over the past few years has taught me to be wary of appointments to public office. These things bring an avalanche of paperwork and spreadsheets and incomprehensible arithmetic, they create awkwardness in relationships with your friends and comrades, they attract unwelcome media attention, they bring on headaches and anxiety and innumerable unmentionable troubles.

So it is with considerable relief that I can share with you what I have learnt, which is that the practical responsibilities of a Chancellorship are inconsequential. There is a view that suggests that these are posts tolerated for the sake of tradition, and that an institution such as this has functioned perfectly well without a Chancellor. Our universities are very cunningly governed and structured, so that the real work is done by the Vice-Chancellor and senior managers, by members of Senate, by deans and faculty boards, and by specialist committees on finance, on buildings, on libraries, on technology, on research: in short, everything that requires practical insight or intelligent discretion is kept institutionally out of reach of even the most inquisitive of Chancellors. And education is an industry in which, by design and intent, the greatest productive effort, thought and discernment are expected of fee-paying customers and unremunerated acquaintances – our students and visiting scholars – which is exactly as it should be, and it would be most disruptive on my part to suggest anything different.

I am nonetheless conscious that there is a burden of stewardship that rests on this office, which is shared by all who occupy positions of responsibility in our education institutions, that is more complex and more challenging than any of the fiscal imbalances that accompany economic misfortune and policy blunders, or the financial stresses associated with the surge and decay of market exuberances.

I am indeed honoured and privileged to have been called to serve this University as its Chancellor. I have a relationship with the institution that spans more than 3 decades – as a student; as a member of its nascent SRC; as a former member of its Council as a representative of its alumni; as a recipient of an Honorary Doctorate; as a speaker at many graduations; as an employer of its graduates and merely as a citizen – watching and observing with pride. So, I am perhaps more familiar with the realities of its transformation than most.

But, it is to my new role of trusteeship that I must turn today. The complexity of the trusteeship challenge in education arises from at least three sources.

Let me characterise the first as an information problem. There are some inconveniences in constructing and interpreting the fiscal accounts of a modern economy, and we all know, post-Enron, that business reporting is a hugely imperfect science. But these are

accounting challenges that pale into insignificance alongside the problems of measuring, reliably and comprehensively, what goes on in the education production process.

The second challenge of education trusteeship is the long-lived, intergenerational nature of the knowledge and learning contract. There is no other industry in which we take such pride in marketing products that have been decades-long, centuries-long, even millennia in the making.

And there is no other industry in which what we do today is so unashamedly about benefits far into the future, not just in the 40 or 50-year future careers of today's students, but also in the slow transformation of theoretical ideas into technological possibilities and eventually into industrial innovation and commercial practice.

Thirdly, there is the analytical complexity of an activity in which investment and redistribution are inseparably bound up together. In the superficial political arithmetic of the national budget, things are more straightforward. There is the redistributive impact of a progressive income tax together with poverty reduction through social assistance grants, housing, schooling and public health services. Then there is the investment in infrastructure, skills, technology and export promotion that is aimed at supporting economic growth and development. There is a category of higher education institutions, defined by academically competitive admissions and internationally peer-reviewed research aspirations, for whom the trade-off weighs heavily in favour of investment. But there is another tradition, exemplified by the American open-admission community colleges and our own further education and training institutions, in which access to learning is the bridge of opportunity that offers escape from the self-perpetuating cycle of poverty and ignorance. Many of the dilemmas and controversies in higher education policy arise from the tension between broadening access and investment in excellence, between creating openings for more learners and advancing the quality and depth of scholarship, between expanding teaching and classroom numbers and concentrating on research and academic debate.

These are age-old issues, they have been the topics of countless inaugural addresses and eminent lecture series, and they play themselves out in different ways in different countries. My purpose is not to offer any new insights, but to add a few footnotes that

perhaps will assist in thinking through the challenges before us, in the 21st century, in the Cape Peninsula, and in the community of learning that our university comprises.

A few comments, first, on the measurement problem.

There is a tendency, when economic value cannot be approximated by bottom-line profits, to institutionalize a plethora of administrative reporting requirements and output or activity indicators as proxy performance measures. This keeps officials busy and may serve an accountability purpose, but far too often the exercise deteriorates into unthinking compliance with ill-considered forms and templates.

Yet, in today's world we have the tools at our disposal, the data, the recording systems, the number-crunching powers, the analytical algorithms, to replace intuition with evidence as the foundation of public policy and education management. What it takes is a determination to ask questions that probe deeper, to examine the facts from new angles, to be open to findings that will sometimes confound our preconceptions.

There is nothing new in the idea of looking for evidence, what is new is the extent of data at our disposal and the power of modern analytical techniques. Our universities and research institutions are rightly at the forefront of analysis of South African demographic trends, epidemiological patterns, labour markets, industrial processes, mining technology. But there are areas of social enquiry in which we are not yet making anywhere near enough use of available data and analytical tools. My submission to you is that the best functioning universities and colleges in the 21st century will be those that make the most aggressive use of data – data about what they do, data about how their students do, data that tracks student performance into the work place, career development, skills and earnings. We need more studies of classroom practices, we need more analysis of learning outcomes, we need tracer studies that follow students out of the classroom into their careers.

Perhaps I can whet your appetite with the intriguing case of Siegfried Engelmann's "direct instruction" approach to teaching under-performing schoolchildren basic language

and numeracy skills.¹ For decades, progressive educationists have argued for “child-centred” approaches to education that tailor teaching methods to the particular interests and inclinations of individual children. Drawing on his early career experience in using advertising messages to communicate marketing information to radio listeners, Engelmann in the 1960s and 1970s pioneered a rigid, rapid-fire highly scripted sequence of instructional routines in disadvantaged American schools, much to the horror of the most respected professors of pedagogics. In the 1990s, the competing methods were subjected to a series of statistical tests. The evidence so far is a resounding “yes” for prescribed scripts in the classroom and a “no” for teacher creativity and autonomy.

Well, I'm not sure I like this result. But what I do like is that teaching methods, ways of doing things in the classroom, are now being subjected to rigorous quantitative studies. For too long, we have relied on faith, good fortune or flagellation for the education of our young. It is time to bring data and evidence into the education production process.

In the context of South Africa's growth and development challenges, finding ways of making schools work better must surely be at the top of our national research agenda. The contributions of the 6 high school learners here today, and the efforts of these and their many colleagues in the essays that they read from is nothing short of uplifting. These contributions speak to the lived realities of our youth and of their faith in the power of education to intervene in the course of their lives. It speaks also to the different learning experiences in South Africa today that, almost 15 years into democracy, are still shaped by the shadow of the past, the overhang of race and class in education. But the effectiveness of educational practice is not the only aspect of education's contribution to growth and development. If our schools and colleges are to play their role as an inter-generational ladder out of poverty, and if higher education is to play its role in technology change and supporting economic advancement, then we need to continue to build more direct links between “learning” and “doing”.

Madam Vice-Chancellor, the CPUT has an excellent record of partnership with industry, and stands at the forefront of cooperative education practice in South Africa. This is a great foundation on which to build, and I believe the economic expansion underway and

¹ Reported in Ian Ayres, 2007, *Super Crunchers: How Anything can be Predicted* (John Murray). See G L Adams and S Engelmann, 1996, *Research on Direct Instruction: 25 years beyond DISTAR*.

the skills challenges we face signal that this is exactly where we need to concentrate our planning and investment for the decade ahead.

What are the dimensions of our investment requirements? If we are to achieve growth of 7 per cent a year over the decade ahead, what would that mean for our engineering and technology enrolment? Many countries are asking questions of this kind, and behind rapid economic growth in countries such as China and India there is an astonishingly rapid educational transformation underway.

In many of China's cities, consolidation of universities into large, multi-campus institutions has been a feature of the transformation over the past twenty years – not unlike the reforms we have undertaken. But it is the growth of engineering and science graduates that is perhaps the most striking feature: China now produces three times as many engineers a year than the United States, and a recent study concludes that by 2010, 90 per cent of all PhD scientists and engineers in the world will be Asian, living and working in Asia. Science and education enjoys a special priority in China's current, 11th Five-Year Plan, with stress on improving the examination and evaluation components of the system to ensure that the quality of higher education is deepened.²

Labour market signals and student choice influence education trends, of course, but there is also a critical role for long-term plans and deliberate orientation of higher education development to the vocational, social and industrial challenges of growth and broad-based development. I know that Minister Pandor and her Department have put institutional planning and review at the centre of our reform of higher education finance, and I entirely applaud these steps. We also need to build the analytical models and cooperative planning frameworks that will allow institutional planning to connect with investment and industrial plans in our economy and region: this has to be a more prominent part of our accelerated and shared growth and development strategy.

I should emphasise that this kind of planning is far more a process than a product, and it requires several networks of consultation and interaction. The National Advisory Council on Innovation, to which Professor Mazwi-Tanga has been appointed this year, is a key

² Yao Li, John Whallen, Shunming Zhang, Xiliang Zhoa, 2008., *The Higher Educational Transformation of China and its Global Implications*, National Bureau of Economic Research Working Paper 13849.

centre of expertise in this undertaking. And I would emphasize too, Madam Vice-Chancellor, that our work lies not only at the apex of technological advancement but also in its more pedestrian applications and detours. Indeed, if we are to play our role as a vehicle of broad-based transformation, then our efforts have to largely focused on widening access to technical skills and applied knowledge, including both credit and non-credit or short-course programmes. Or as Dr Gail Mellow, President of the LaGuardia Community College in New York City, puts it – in a baseball metaphor that needs no translation to a cricket pitch – we need a post-secondary system that serves as “pinch-hitter for the gaps in the (school) system, and ... clean-up batter for ... business and industry.”³ It is this transformative power, over lives and aspirations, over capabilities and human achievements, that is the engine of broad-based, sustained economic growth and development.

The idea that education is a vehicle for social mobility, that it can overcome hereditary privilege or even class barriers, is not new – it found expression as readily in America’s liberal tradition as in Europe or Britain’s socialist reforms in the mid-twentieth century.⁴ The rising wealth gap, more or less everywhere in the world over the past twenty-five years, is pause for thought: education is clearly not enough. Yet, without progress in education, without rapid progress in both the quality of schooling and access to higher education opportunities, there is no plausible prospect for rising prosperity or broader participation in the modern economy.

And so I am obliged to admit, despite the happy absence of practical content in the duties of a Chancellor, that the challenges of governance in our higher education institutions are formidable. We exercise trusteeship over activities that can only indirectly be measured or evaluated, our understanding of the economic and social linkages that give meaning to what we do is hazy and incomplete, and there is a greater project of social transformation that rests, at least in part, on a successful negotiation over the decades ahead of an education improvement process that we only partially comprehend.

³ Gail O Mellow, *Each and All: Creating a Sustainable American Higher Education System*, LaGuardia Community College.

⁴ For example, James Bryant Conant, Charter Day Address at the University of California, march 28, 1940: *Education for a Classless Society*.

The dedication and commitment of this University's staff to their work and their students, the professional competence of the administration and the wisdom and farsightedness of an extraordinary leadership team are the lodestars, of course, on which a course can be charted through even these uncertainties. I am greatly honoured and privileged to have the opportunity to share in the journey that lies ahead.

Thank you.