
GLOBAL: What are universities for?

Geoffrey Boulton

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The title of this article should be a FAQ - that is, a frequently asked question. My contention is that the question, 'What are universities for?' is not asked enough, and that it tends not to be answered in a cogent and realistic way by those best placed to do so, that is by academics.

I will present a series of propositions which I challenge you to disagree with. They are based on ideas that Colin Lucas and I recently set out in a publication from the League of European Research Universities.

Proposition 1 - Universities play increasingly important roles in modern society.

In the last two decades, higher education worldwide has moved from the periphery to the centre of governmental agendas. Universities are now seen as crucial national assets in addressing many policy priorities, and as: sources of new knowledge and innovative thinking; providers of skilled personnel and credible credentials; contributors to innovation; attractors of international talent and business investment; agents of social justice and mobility; contributors to social and cultural vitality; and determinants of health and well-being.

Proposition 2 - Notwithstanding their diversity of functions, governments focus on the presumed direct economic role of universities.

Whereas people in higher education might be sensitive to these diverse functions, the reality is that in policymaking circles the discourse about universities tends to be dominated by analyses of how they can best fulfil a direct economic function.

The role of universities in creating economically valuable intellectual resources is reflected in the following comments, and is in my mind unquestionable.

Michael Porter, of Harvard Business School, commented that: "Skilled human resources and knowledge resources are two of the most important factors for upgrading national competitive advantage." According to André Sapir, of the Breughel Group: "There must be the radical re-ordering of EU priorities to stimulate growth, by concentrating on consolidating capital markets, research and development and higher education."

But I am profoundly uneasy when faced by assertions such as those of the Australian Chief Scientist, who argued in *The Chance to Change* that universities had the potential "to play a central role as dynamos of growth in the innovation process and be huge generators of wealth creation".

In a context where governments are principal funders of universities, it implies that a university can be like a pump which, when primed with a little public money, will gush forth the tangible effects of economic prosperity into which that money has been transformed.

It assumes that the function of universities is to provide direct in-out benefits for society's economic prosperity. The logic implies that invention in the university, largely in its science labs, leads to innovation and economic benefit. The oft-quoted example of this from Silicon Valley and Stanford University is, however, far more subtle and complex than a simple reading allows - but its success, however fleeting, has created a consensus about the potential of the university to be the direct driver of the knowledge-based economy.

That is the consensus that prevails today, as European policymakers look to keep their nations and regions competitive, in face of raging industrial competition from China and India, as well as all-round economic uncertainty.

A rhetoric of crisis has developed that focuses on the development of powerful research universities which have become, over the past few years, something of a holy grail for European research policy. In almost every region and nation, having at least one research university that performs, as the cliché goes, like MIT, is regarded as a central element in maintaining economic competitiveness.

What role do such universities have, they ask, in lifting us from the current recession, or depression as it might become? What shall we do to ensure that our universities are ready to perform? And by implication, if companies and jobs aren't being created in sufficient numbers, where are our universities going wrong? What can we fix to make them deliver the goods? If they can't, we'll create a European Institute of Technology to show them how to do it.

Proposition 3 - It is crucial that the true role of universities in society is understood before mechanisms to promote change are put in place.

At this point, we need to pause and think what it is that makes the university engine work, what it can deliver for society and what it cannot. Because while public policy rightly seeks the engagement of universities in contemporary concerns and objectives of their societies, such policy needs to be moderated by a better understanding of the fundamental functions of universities in society.

While the assumption is that there is a direct, linear in-out relationship between economic outcomes and investment in university research - particularly in science - which has produced welcome investment, and while many governments are asking "how can we make investments in universities that will help us out of the recession", there is a temptation for universities to promise what we cannot deliver.

We should be careful not to foist on universities tasks which they may be ill-equipped for and which, if too actively pursued, could damage their ability to deliver what they are uniquely able to deliver in terms of education and innovation. We need only look at banks to see the consequences of excessive and ill-conceived diversification. Let us not follow them.

It is my contention that much of the current emphasis of public policy concerning universities is the result of thinking that is far from capturing their essential reality. It is crucial that the true role of universities is understood before mechanisms to promote change are put in place.

Proposition 4 - The university's concern is 'useful knowledge', but not merely with the immediately applicable - a university is a resource for an unknown future.

I believe that the university is essentially concerned with 'useful knowledge', but that useful knowledge should not be interpreted merely as the immediately applicable. One of the roles of the university is to prepare the knowledge that an unpredictable future may need.

A university that moulds itself only to present demands is one that is not listening to its historians. Today's preoccupations are inevitably myopic, often ephemeral, giving little thought for tomorrow. History is at its most illuminating when written with the full consciousness of what people wrongly expected to happen. Even in the domain of technology, future developments only a few years away have been shrouded from contemporary eyes. Many, possibly most, have arisen unexpectedly from research with other objectives, and assessments of technological potential have invariably missed the mark.

Thirty years ago, scientists who studied climate change, and I am one of them, tended to have long hair and very colourful socks. We were regarded as harmless but irrelevant. But the serendipitous investment in their work revealed processes that we now recognise as threatening the future of human society, and the successors to those scientists are playing a crucial role in assessing how we need to adapt.

Francis Fukuyama's 1992 claim of "The End of History" was soon falsified as, within a decade, history re-invented itself, gearing into fast-forward mode with unanticipated transformations in economic practice, in social and religious experience and political relationships. We may now be at a similar juncture. Who would have thought, a mere year ago, that two decades of global economic growth might be brought to a precipitous halt by sudden collapse of pillars of the global economy.

The ideas, the thoughts, the technologies, that tomorrow will need or that will forge tomorrow, are hidden from us. Universities in their creative, free-thinking mode, and their students who acquire these habits, are vital resources for that future and an insurance against it. The policies being increasingly pressed upon universities, however, implicitly assume a knowable future or a static societal or economic frame.

Arguably, we have become so well adapted to a set of assumptions that are of temporary rather than universal validity, that we are less able than we should be to contribute the radical ideas that the present circumstances need.

Let me therefore examine how university contributions to society are achieved through their historic roles in education and research, and how they should best respond to current priorities. What is core of the university function? Where is the engine of its creativity? And where are we failing?

Proposition 5 - the central role of the university is education.

Generation by generation universities serve to make students think. They do so by feeding and training their instinct to understand and seek meaning. True teaching disturbs complacency. They are taught to question interpretations that are given to them, to reduce the chaos of information to the order of an analytical argument and to seek out what is relevant to the resolution of a problem. They learn progressively to identify problems for themselves and to resolve them by rational argument supported by evidence: and they learn not to be dismayed by complexity but to be capable and daring in unravelling it.

These are the qualities that ensure that they are not bemused and confounded by the collapse of a world that would have provided them with assured and predictable employment, but make them able, as I say, to be capable and daring in addressing its problems.

When leavened by deep technical understanding, these skills create a powerful alchemy that ensures an annual flux into society of skilled and creative graduates who continually refresh its technical excellence and its economic, social and cultural vitality. They are crucial to its capability to take bold, imaginative and principled action in the face of an uncertain future, rather than cowering in fear of it. They are the qualities that every society needs in its citizens.

Without them, society fails to exploit new intellectual capital and is unable to make decisive decisions. It will be a derivative society, buffeted by international trends but without the moral force to influence global developments. European dithering and uncertainty in the current crisis, where we seem to be waiting for the Americans and the Chinese to solve our problems, underlines the point.

I am aware that statements about the deeper, personal values of education can easily be traduced as sentimental attachment to an ivory tower, detached from a world of employment and the insistent utilitarian demands from a variety of stakeholders. I retort that such values are themselves utilitarian. They form the bedrock that enables the practical skills needed by society to be most intelligently deployed.

Moreover, many of the qualities prized by government and business - entrepreneurship, managerial capacity, leadership, vision, teamwork, adaptability and the effective application of specific technical skills - are not primary features, but derivatives from these more fundamental qualities.

Neither should these values be thought of as exclusive, elite virtues. The diverse institutions that now make up the university sector in Europe, all need to respond to these imperatives, both in vocational and non-vocational programmes. Watering down condescends to the unknown capabilities within ourselves. It condescends towards those judged, a priori, to be incapable of better things.

I sometimes feel that we in the universities have lost the plot. Rather than ensuring that our graduates are adaptive, competent and intellectually bold, we increasingly focus on developing highly specific technical skills deployed in predictable settings. We have been concerned with the derivatives rather than the fundamentals. With what is learned rather than how it is learned. With training for the short term rather than education for life.

Proposition 6 - research or scholarship are essential to the university enterprise only if they are intimately associated with the educational process. Research-only or teaching-only staff undermines the rationale for university research.

One of the reasons why such education has come under pressure, is the research imperative. In many settings research and scholarship have become the enemies of good teaching rather than its necessary complement. Many universities have given research such priority that it is become an activity separated from teaching. The establishment of teaching-only and research-only posts is symbolic of the shift. Universities are certainly not exclusively, nor even primarily, research institutions.

Why do teaching and research belong together? It is because the best research and the best teaching depend upon a culture and individual attitudes that value curiosity, scepticism, serendipity, creativity and even genius. They are values that are crucial to the university educational process at its most profound, and are most readily acquired in an environment of free-ranging speculation and research.

On the other hand, the transfer of research-derived understanding into society by graduates who embody it is probably the most powerful vector by which it reaches society. More important than publications, than spin-outs and technology transfer offices.

By the same token, universities have also proved to be a highly cost-effective setting for basic research in particular. The reasons may lie in their non-hierarchical nature, the pervasive presence of the irreverent young, whose minds are not so full of the means of refutation that original ideas are denied entry, in contrast to specialist research institutes, where the peace and quiet to focus on a mission, undistracted by teaching or other responsibilities, and with relatively assured funding, may be a questionable blessing.

Proposition 7 - Universities are important parts of the modern innovation process, but not as its drivers.

But what is the role of universities in innovation? Innovation is predominantly a process of business engagement with markets. Universities are not the drivers of these processes, but they do increasingly contribute to the fertility of the environment that innovation needs if it is to flourish. Direct commercialisation activities do not, even in the USA, where university commercialisation is best developed, contribute significantly to GDP. In Silicon Valley, Boston and Cambridge, even high tech companies do not regard the university amongst their principal direct collaborators.

Universities have a different role, which is to help create an environment sympathetic to and supportive of innovation, and particularly where there is internationally-competitive research and excellent graduates. They produce centres of creativity that attract research-intensive companies and investment into a region, and help catalyse innovation in indigenous businesses.

The bedrock for this potential remains, however, the university's commitment to education and the exploration, through research, of the limits of our understanding.

Proposition 8 - Universities have the potential to stimulate regional social and cultural vitality. This itself also has an economic impact.

Lively and energetic universities enrich their regions and beyond in very diverse and complex ways. Many academics have long and freely contributed their specialist knowledge or distinctive perspectives to public bodies, and to a broader public through lecture, debate, discussion or performance, and as "public intellectuals" who take on a public role to stimulate debate or social activism. So do their students.

Much of this engagement is negotiated with and by individual academics and their students, often without the formal consent or even knowledge of their universities. It is part of the "halo" effect of a university, and depends entirely on the presumption that autonomous academics have the freedom, and the duty, to promote learning and understanding.

Such activities stimulate cultural vitality, they attract clever people to come to region and retain them there, and attract the companies they work for. They influence social policy and social provision. Moreover, academics' reputations for independence and their credibility make them ideal interlocutors in some of the crucial public debates of our times, whilst their universities provide an ideal, neutral space for engagement.

So why do these benefits not always flow as I have described them, or not as much as they should? There are two first order problems, which lie jointly in the hands of government policy makers and of universities themselves.

Proposition 9 - Policymakers too frequently prioritise and fund outcomes rather than the health of the university engine that delivers them. This unbalanced approach can undermine production of the very things that government cherishes.

Governments as the principal funders of Europe's universities have a difficult job. A major difficulty arises in the desire of policymakers to mandate outcomes, which they often approach by creating separate funding streams to support separate outcomes: the graduating students, the research excellence, the number of patents and start-up companies, the policy contracts etc.

Success in any one of these areas, or particularly attractive funding streams can so persuade a university to concentrate its efforts in that direction that there is detriment to the creative balance in its core. I have no doubt for example that the Research Assessment exercise in the United Kingdom, which is the principal way in which a university can change its core income has been such a powerful driver of behaviour that our central educational role has suffered severely.

Where are universities falling short? What are the lessons for universities and policy-makers?]

I do not have time to go into this, I will simply leave you with this list and say that the other major problem lies in the difficulty of managing an institution like a university, with the immense creative potential that I have tried to describe.

The dilemma is to retain the sense of ownership of the university by its members, which creates the setting for their creativity to range freely, whilst implementing the structural changes that are inevitably needed from time to time if the university is to remain a creative force for future generations.

The difficulty is, that changing a university is like moving a graveyard, you get no help from the people inside! The temptation to weak rectors or governing boards is to manage this potential anarchy so strongly that all autonomous creativity and diversity of action is squeezed out. We must not fall prey to the fallacy of managerial primacy, that things that make management difficult necessarily need to be removed or reformed.

Conclusion

It is my contention that slipshod thinking about the roles that universities can play in society is leading to demands that they cannot satisfy, whilst obscuring their most important contributions to society, and, in the process, undermining their potential. To see them simply as instruments for immediate economic benefit is a fundamental error. To confine universities to such a mechanical place in the progress of society is to diminish them; it invites doomed attempts to measure intangible effects by unyielding metrics; it offers only eventual disillusion.

We should not be rushed by a combination of inducements, urgency, and regulation into accepting an identity proffered from our ambient world, but must engage with it to define a commonly accepted purpose.

The increasingly instrumental view of universities too frequently concentrates on science, technology and medicine, with a perfunctory nod towards the humanities and social sciences that implicitly under-values their importance for society. There is a notion that the understanding they confer is less important than that of natural science, although natural scientists themselves rarely take that view.

Universities deal with the universality of knowledge; they are concerned with human beings in all their manifestations - biological, mental, emotional, objective and subjective - and their social, cultural and economic organisations and interactions with each other; they are concerned with the physical world within which human beings find themselves, and the physical world we have created for ourselves.

They seek to establish what is common to all of us and what distinguishes us each from another or each group from another group. These things are common to the whole university endeavour whatever the discipline. They are the foundation upon which the university enterprise rests and upon which its significance for society is built.

There is an overriding point to derive from the propositions I have put to you. Policy makers increasingly appear to regard universities as supermarkets for a variety of public and private goods that are currently in demand. I retort that it is the totality of the university enterprise that is important. Neglect that and the shelves will be bare. One cannot simply separate one element and say that is what we want and that is what we will pay for.

Human society is not separable in the way that governments would necessarily wish to decompose it for the purpose of discrete policy actions. It is a complex interacting whole, which needs to be understood as a whole. No one discipline suffices to seize the whole - whether the whole individual or the whole social construct.

Of course, public policy will place a premium on this or that aspect at different times, but it cannot simply set about neglecting the rest on the purely temporary and therefore relative grounds of a present concern. Indeed, universities are the only place in society where that totality of ourselves and our world is brought together. It is universities in their diversity of preoccupations that are the strongest providers of rational explanation and meaning that societies need.

These issues of function and purpose are important, and need to be explicit. They must be part of the frame for the animated debate taking place in Europe that generates headlines such as "creating an innovative Europe", "delivering on the modernisation agenda for universities", and "European Strategies for European universities".

** Geoffrey Boulton is Vice-Principal of the University of Edinburgh.*

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