

CHAPTER 20

The Story of the Cambridge Taxi Driver and the Future of the University

Bert van der Zwaan

INTRODUCTION

The university is one of the oldest institutions in the world. After 800 years, it is still going strong, where many other institutions have foundered. The university even appears to be flourishing: in the Netherlands, for instance, as elsewhere, student numbers continue to rise, research enjoys a good reputation and Dutch universities' results are impressive — certainly if one takes the size of the country into consideration (Times Higher Education, 2017).

Nevertheless, these are turbulent times. There is criticism from all sides: criticism of the mass nature of education, the focus on efficiency and research output, the lack of collaboration with industry, and the relatively meagre attention that universities are said to pay to societal problems. And that is just criticism from the outside world. Within the university community, the voices of lecturers and students can also be heard. They are often critical of administrators, “who have transformed the university into a factory”.

In addition to criticism of the current situation, there are challenges for the future. No doubt Higher Education will change profoundly over the next 25 years; I have recently summarized the main trends (Van der Zwaan, 2017). For example, education will transform due to digitalization, but also due to customizing of teaching programs and the rapidly increasing importance of obtaining course certificates over a degree (see for instance Barber *et al.*, 2013). Research will move more and more towards interdisciplinary questions

(National Academies Press, 2014; Wernli & Darbellay, 2016). Supported by IT, global cooperation will be the norm, also because research facilities will be so costly that they will be out of reach for many universities.

How is the university tackling the existing problems and how is it preparing for the future? Where will the bottlenecks and opportunities lie in the coming 25 years? Or, to put it differently: how can the university best survive? University leaders tend to answer this question by immediately starting the narrative of the need for more funding or by pointing to all the changes that are needed to face the challenges in teaching and research. But by doing so they run the risk of ignoring the tremendous social changes around us. In this essay, of which some parts have been published before (Van der Zwaan, 2017), I will focus on these changes. I will argue that if we continue our present course, we run the risk of ending up doing very well in splendid isolation, but being totally disconnected from society at large.

THE STORY OF THE CAMBRIDGE TAXI DRIVER

In May 2017, a taxi driver brought me from Clare College, where she picked me up, to the Cambridge train station. This was after a meeting with the LERU (League of European Research Universities) rectors, who just had been discussing the threats and challenges to our research universities. The debate had very much focused on Brexit and EU-funding as important items. However, the taxi driver confronted me with a completely different view. In the 20 minutes or so of this drive, she talked non-stop and made comments on the city of Cambridge and the landmarks we passed. But, unintentionally, she very nicely captured the difference between the academic world and her world, in which she was forced to cope with completely different challenges than our universities.

At some point, she commented on the booming business in Cambridge. She told me that the university was instrumental therein: many of the staff and faculty were looking for housing, among them quite a lot of foreigners. That was the reason, she said, that she was forced to live at a one-hour driving distance from Cambridge, because housing in Cambridge was much too expensive due to the high demand. “These people”, she said, “complain about housing prices by putting a manifesto in Latin on houses that are being built for a price of £1 million or more, whereas we don’t profit at all from the booming business.” She further summarized the world of a Cambridge taxi driver in a few words: local, no access to higher education due to high tuition fees. Her “facts” were generated on social media. The feeling which spoke out of her words: “We are not protected in a globalizing world, we are losing out to others, we are not participating in prosperity.”

The rectors' conference I just had left behind me had been filled with a completely different world, the one of academia: global, (scientific) fact is truth, with a strong sense of wider cultural perspective and the ability to handle different scenarios. The feeling of the rectors while discussing Brexit and other issues contrasted markedly with that of the taxi driver: "We are global universities, the labour market is ours, globalization is imperative to improve the world."

The changing landscape

The story of the Cambridge taxi driver illustrates that while universities are grappling with all the changes mentioned in the introduction, they should not lose sight of societal undercurrents affecting the very foundation of the university. In 1852, J. H. Newman wrote: "A university is a place...whither students come from every quarter for every kind of knowledge...in which the intellect may safely range and speculate. It is a place where inquiry is pushed forward...discoveries perfected and verified...and error exposed, by the collision of mind with mind, and knowledge with knowledge." For many years, the university has built upon this idealistic mission. On top of that, over the past several decades, it has been forced into the role of innovator, provider of skilled personnel, and attractor of international talent and business investments. But now society increasingly demands more influence on the scientific agenda-setting, requires Open Science, and urges the university to think more about its impact and meaningful contributions rather than about "creation of economic value".

Underlying this trend is the sense of a growing divide in society. Statistics support the emergence of such a social divide, not only in the US, but also in Europe. Education is increasingly becoming a characteristic of social class: worldwide, there is now an educated elite which benefits from rising global prosperity. However, a growing proportion of the population, also in Europe, is faced with a decline in opportunities in the labour market. The negative sentiment of the so-called angry white man who is losing out, or feels he is losing out, to globalization and the open borders that promote international trade, has grown over the past few years. This resulted in the dissatisfaction that coloured the elections in the US, led to the British electorate turning its back against the European Union, and continues to dominate polls, referenda and elections in the Netherlands, Italy, France and Germany.

In this context, Stephen Hawking wrote a letter to the Guardian in 2016 with the meaningful title "This is the most dangerous time for our planet". He starts the letter with: "I have lived my life in an extraordinarily privileged bubble," indicating the way universities still tend to operate in relative isolation. He continues: "...taken together, we are living in a world of widening,

not diminishing, financial inequality, in which many people can see not just their standard of living, but their ability to earn a living at all, disappearing". His warning seems right on target: universities run a considerable risk of losing societal support exactly due to this divide.

But perhaps the most disturbing undercurrent is that facts hardly play a role any more, and that societal debate is primarily governed by emotions. This is evident in people's reactions on social media, where facts are no longer recognized as facts, and are instead dismissed as mere opinions. Here, President Trump set a new precedent by stating that "a lot of people feel it wasn't a proper certificate" after President Obama released his birth certificate.

This profoundly changing landscape that surrounds the university demands a considerable re-adjustment, in addition to the challenges already imposed through teaching and research. Therefore, although some mourn the fact that the university has left its ivory tower as described by Newman, in my mind universities should go further in order to become more visible, and play a more significant role in society. This could range from addressing major societal problems to providing knowledge for better informed politics. Rather than withdrawing into its old role, an engaged, civic university should be vocal and take up a position in public debate. This would certainly help to legitimize the university and create new carrying capacity in society to sufficiently fund higher education from public sources, instead of leaving it to private funding through sky-high tuition fees. Access to higher education, now prevented by high costs, is crucial for a future society without a social divide which only spells trouble. Higher education for as many as possible is a key feature of a prosperous and stable future society. But most of all, in this "post-fact era" (see for context also Fukuyama, 2017; Stiglitz, 2017) the university needs to regain its role as a speaker of truth. In an age ruled by the wisdom of the crowd, reliable institutions are crucial. The university should be such an independent authority, showing clear ways out of complex problems.

The change of mindset needed

If the university were to play a more visible role in society, this would certainly be helpful to retain support. The fringe benefit for the university would be that, by doing so, it will become part of a broader system in which knowledge circulates, and therefore brings higher returns. This could even lead to universities forming associations with large organizations such as the United Nations, or parts of them, such as the Food and Agriculture Organization (FAO), or with NGOs, regions and governments, so as to provide their large programs with the essential knowledge.

In order to support this movement towards society, but at the same time to remain truthful to the mission of continuously exploring new knowledge

domains, research programs ideally focus on the cutting edge of major societal and fundamental questions. This requires input from many disciplines. Interdisciplinary research will therefore inevitably play a large role. In turn, this demands the opening up of the rather closed academic silos. Teaching needs to shift from solely monodisciplinary education to training of students as “T-shape professionals”. Students are thus prepared for their future roles, not only as university graduates in all kinds of professions, but also — for a considerable number of graduates — in their roles as leaders in society.

In short, we need to consider our scientific problems in a wider context. For instance, we should be more aware of the fact that most problems in society and science are not of a strictly disciplinary or technical nature. Climate change is a good example. From the point of view of science, we are very far advanced in understanding and predicting the climate system. We know that if we persist in our present behaviour, we will certainly surpass the critical boundary of 2°C warming of the earth. So the problem is one of governance and social arrangements, more than a technical issue. However, technical solutions such as alternative energy sources can help to implement pathways to sustainability and facilitate in finding a way out. But then again, extremely viable technical solutions, like the use of the deeper underground for storage of heat or carbon dioxide, might immediately run up against societal resistance, which could be mediated and overcome by applying insights from social sciences.

This brief example illustrates that it is absolutely inevitable that engineering and technical disciplines combine forces with disciplines from the sciences and social sciences and humanities, but also vice versa, that comprehensive research universities team up with technical ones, in order to arrive at successful solutions. This brings more than only short-term success: in my view, the combination of disciplines, and recombination in new convergences, facilitated in the future by powerful IT, could lead to a new “renaissance” in the literal meaning of the word. However, this sounds easier than it is: it will require a truly profound change in mindset in order to be successful in breaking down the disciplinary and cultural barriers which are characteristic of the traditional university.

REQUIRED INSTITUTIONAL CHANGE

The 2008 financial crisis and its aftermath have led to a rapid and profound change in the social climate worldwide. In nearly all Western countries, politicians are going back to focusing on national interests. In this climate, universities are facing a difficult period. Following the election of President Trump in 2016, many anticipate a dark spell in the US, in particular in terms

of its leading role in higher education, the excellence of this education, but also — and especially — the role of the US as a place where international students are welcomed. This gloomy picture also applies to the agendas of the European populist parties in countries such as France, the UK, Germany, Italy and the Netherlands: the focus on curtailing immigration and the limited attention for higher education that this speaks of, can be viewed as a threat to the academic community.

In all cases, there is a growing fear of the denial of scientific facts. Here, too, President Trump in the US is setting a prominent example that many are hoping will not be followed by others: the prioritization of the economy over the environment, while at the same time denying the existence of major environmental issues, denying climate change, and his lambasting of the National Institutes of Health as being a waste of funds are not reassuring.

The importance of core values

Guzella and Folkers (this volume) argue that traditionally the university is a place of curatorship, of preserving knowledge even in the digital era. This includes education of new generations, making use of the most modern techniques. Of course, this still is a central role of the university. But what has changed since the origin of universities is that research has become an equally important task as teaching and curatorship. Especially since the middle of the previous century, universities have become among the most prominent providers of new knowledge in modern society. This came at a cost, since governments and research funders demanded a say in the universities' agenda, in return for the financial support for research. The good news is that by doing so, universities became better connected to society than maybe ever before. However, the bad news is that to some extent we have sold our soul to the devil since this connection constantly threatens the freedom of research.

Although we now realize that the ideal of value-free research is not realistic (Collins & Evans, 2017), the statements of the Trump government reminded us that freedom of research is not a given, and that universities should continuously fight for it. Marches for Science, as we saw in 2017 in reaction to the Trump administration, are of great value to fuel this fight. Moreover, we should constantly be aware that the freedom of research is not only affected by actions of governments, but that also rankings, funding and demands from the market can steer research along undesirable paths. Therefore, independence of thought, honesty and integrity should always be active core values. In combination with curiosity and inquisitiveness, this remains the heart of the university, needing active attention to let these values circulate through the organization and pass them on to new generations.

Gathering wisdom instead of knowledge

Since the Enlightenment, the ideal of knowledge — the gathering of knowledge for knowledge's sake — has come to lie at the very heart of the university. The idea gradually developed that production of knowledge is always meaningful, even if it results in a huge number of articles that no one reads or cites any more (see San Francisco Declaration, 2013, for some context).

In the coming years, we should step away from the neo-liberal model of the university where production is central, measured with quantitative KPIs. Instead, it is essential that the idea of production of papers evolves into a different concept, namely that the university is concerned with something more like the production of “wisdom”. Analogous to the way in which the university's contribution should be measured in terms of meaningful impact, and not only in an economic sense, knowledge should be valued to the extent that it functions in the context of a really pressing question, and the degree to which it provides a broadly applicable answer. An excellent university is not a university that has the highest production in papers, but the university that combines asking really profound questions with contributing to society — in equal measure (see also Barnett, 2011, and Nowotny, 2015, for comparable discussions).

In a critical intellectual environment, words as “meaningful” and “wisdom” soon provoke follow-up questions, for behind such terms lies a whole range of potential implications. Instead of defining them immediately, these concepts should be explored in discussions with the university community and in debate with societal actors. This search is important because it will allow us to identify precisely which pressing questions we are facing, and how knowledge might contribute to solving these. But it will also be a search to discover when knowledge becomes wisdom: thus, when it becomes a solution that really enriches people's lives.

Trying to find answers to such questions will contribute substantially to further legitimize the university in society. It is time well spent to debate our mission. By doing so, we become more aware that science could be a powerful glue that keeps society together, which straddles boundaries in a crumbling political system. Even more, that science is the only way forward to solve many fundamental societal issues. That should be our discourse with society, with open science as an excellent tool of showing what we have to offer.

Institutional change versus society

It is essential that universities clearly establish a position in the societal debate. There will be an increasing need for indisputable facts, and institutions with the authority to provide them. But, in order to do this successfully in the “post-fact” era, universities must be aware of the gap between the higher- and

lower-educated. This gap can only be bridged through adequate outreach: not only by stating the facts, but also by putting them in context and interpreting them in a broad range of different ways. This includes directly liaising with the media, but also extends to raising awareness and providing information at various platforms, such as through academic hubs and museums, or by organizing debates. The university must look for ways to successfully approach sections of the population which have long stopped reading the paper or watching television, but which predominantly or exclusively get their information from social media.

The younger generation is essential in this process: Altbach and De Wit (2016) rightly note that, in the referendums and elections of the past few years, the voting behaviour of students in both Europe and the US is markedly different from that of the older generations. They are predominantly proponents of globalization, all the more since they are often part of the educated elite and therefore stand to benefit from it. But that also means that students, who in the US mainly voted for Bernie Sanders and therefore against Clinton's establishment and Trump's populism, and in Europe voted against Brexit and in favour of the European Union, will increasingly protest against the populist concept of "taking care of our own people first". This places universities in the difficult position of having to reconcile conflicting aims: on the one hand, they will have to play a role in bridging the gap in the societal debate with facts and knowledge, but, on the other, they will increasingly be populated by young students who will take a clear stance against anti-globalization and populism. In that sense, universities may once again become centres of protest, but at the same time they must avoid being the isolated ivory towers of the elite. Hopefully, universities will be able to help give shape to these protest movements while at the same time strengthening their connection with the "angry white man".

EDUCATING YOUNG PEOPLE AND CITIZENSHIP

Over the past decades, we have seen an increasing shift away from the provision of a broad college education. A growing number of voices argue in favour of using the university in a more targeted fashion as preparation for the labour market, also in view of the cost. What is certain, however, is that the labour market that we are used to, which has been employing graduates for centuries, is undergoing a truly fundamental transformation. Whereas, for many years, employment could almost be taken for granted, nowadays we see a general contraction of the labour market due to, for instance, competition with an increasing volume of graduates, and robotization (Frey & Osborne, 2013; Susskind & Susskind, 2014). In such a situation, the extent to which

a university program is tailored to rapidly changing demands from society is becoming increasingly important. Clearly, employability will be more of an issue than it has been so far.

In many respects, emphasis in academic education today still lies on the acquisition of knowledge. But, in future, knowledge will be available everywhere around us or “in the cloud”. Hence, the role of the university graduate will shift from gathering and generating knowledge, to using it, and above all, using it in a truly creative way. Asking good questions is increasingly more important than knowing facts. To compete with digital universities and the growing offer of Lifelong Learning programs, universities need to be more student-centric, more geared towards customized learning, more towards creativity, in order to survive the growing pressure on the traditional university.

University curricula tend to be supply-driven, that is, driven by academic traditions or lecturers’ interests. Research universities in particular are not really demand-driven in the sense that they readily respond to needs from society. As a result, often little attention is paid to so-called 21st century skills, like soft skills, leadership-skills. But also to awareness of what is going on in society, general academic skills, Bildung if you like. Yet, these are precisely the skills that should characterize the curriculum of tomorrow, resulting in responsible citizens who will show leadership in the face of tomorrow’s challenges. This will form the best bridge between the university and a changing society.

Leadership at all levels

The greatest task for the university of the future is to be constantly willing and able to adapt to all of these different challenges, to local circumstances, and to constantly shifting conditions over time. We therefore need to see university planning based on portfolios, rather than classical planning based on disciplines. For this is the great challenge: on the one hand, to keep traditional, discipline-based scholarship intact, because it is essential to achieve progress in this, while on the other hand allow the results of this scholarship to be used flexibly and often in interdisciplinary ways in social contexts.

This means that also the university will need to be organized in a flexible, readily adaptable way. But, at the same time, it needs to preserve scientific knowledge and disciplinary traditions which have been built over a long span of time. At the heart of all these changes should be a clear view on core values, which constantly need to be discussed and renewed. It falls to university administrators in particular to encourage debate on this within their institutions. This requires strong leadership at all levels. But much too often university leaders see themselves as the agent of change, whereas, in reality, leadership should reside deeply in a professional organization, and not only at the top.

First and foremost, this leadership should be visible in the continuous development of teachers. More than at any other level, authoritative study directors and professors leading the continuous change and improvement of curricula, in view of the challenges imposed by a dynamic labour market, are key. Their essential position should be recognized and supported, in particular because of the traditional slight with which teaching is regarded compared to research.

The research leadership role is traditionally already strong in universities. But now, more than ever, a new type of leadership is required to explore rapidly changing “convergences”, combinations of disciplines that collaborate in unexpected configurations. This new leadership demands speaking the “language” of the disciplines involved, and the ability to tear down the disciplinary silos.

Universities have become large, sometimes extremely so, and with the growing size there has been an enormous increase of bureaucracy. This is aggravated by the continuously increasing number of rules imposed by the government. What is needed, however, is an agile organization that supports teachers, scientists and scholars in a dynamic context. Although strong academic leadership is essential in positions like those of vice-chancellor, dean and study director, much too often academics see investment in good managers of increasingly more complex university services as a waste of money. However, in this case their often-heard maxim that all funds should go to academics, is clearly one of myopia: flexible, high-quality services are essential to survive.

CONCLUDING REMARKS

After 800 years, the state of the university should be reconsidered very carefully. In the English-speaking world there is an increasing chorus of voices that comment on the “crisis of the research university”, and that predicts a troublesome future based on the sky-high tuition fees, increasing privatization and decreasing government support. The first reflex to this is to react from an inward-looking perspective, and to start the narrative that pleads for increased funding to preserve the university in present state. However, instead of reasoning from within, it seems wise to consider the question whether the university is still well positioned in a changing society. Crucial in this respect is to connect the world of the academia to the world of the taxi driver.

ACKNOWLEDGEMENTS

I thank the organizers of the Glion Colloquium 2017, which was inspirational, and Esther Stiekema and Margreet de Lange for helpful comments and suggestions to improve the manuscript.

REFERENCES

- Altbach, P.G. & De Wit, H. (2016). "Will Trump make US HE great again? Not likely," *Times Higher Education*, November 2016.
- Barber, M., Donnelly, K. & Rizvi, S. (2013). "An avalanche is coming. Higher education and the revolution ahead". Institute for Public Policy Research.
- Barnett, R. (2011). *Being a University*. Routledge.
- Bovens, M., Dekker, P. & Tiemeijer, W. (2014). "Gescheiden werelden? Een verkenning van sociaal-culturele tegenstellingen in Nederland", Sociaal Cultureel Planbureau en WRR.
- Collins, H., & Evans, R. (2017). *Why democracies need science*, Polity.
- Frey, C. B. & Osborne, M. A. (2013). *The future of employment. How susceptible are jobs to computerization?* Oxford Martin Publications.
- Fukuyama, F. (2017). "The emergence of a post-fact world", *NewEurope*, 8 January 2017.
- Guzella, L. & Folkers, G., (This volume). "Universities as curators of knowledge".
- Hawking, S. (2016). "This is the most dangerous time for our planet," *the Guardian*, 1 December 2016.
- National Academies Press (2014). "Convergence. Facilitating Transdisciplinary Integration of Life Sciences, Physical Sciences, Engineering, and Beyond". National Research Council.
- Newman, J. H. (1852): *The idea of a university*. Newmanreader.org
- Nowotny, H. (2015). *The cunning of uncertainty*, Polity.
- Stiglitz, J.E. (2017). "The age of Trump", *NewEurope*, 8 January 2017.
- San Francisco Declaration on Research Assessment (DORA) (2013). Ascb.org
- Susskind, R. & Susskind, D., (2014). *The Future of the Professions. How Technology Will Transform the Work of Human Experts*, Oxford University Press.
- Times Higher Education* (2017). "The European University Ranking 2017: Power behind the throne". June 2017.
- Van der Zwaan, G. J. (2017). *Higher Education in 2040; a global approach*, Amsterdam University Press, 255 pp.
- Wernli, D. & Darbellay, F. (2016). "Interdisciplinarity and the 21st century research-intensive university". LERU position paper 2016.