

The university: a multinational corporation?

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Introduction

Traditionally there has been a stark contrast between ‘cathedrals of learning’ (universities) and ‘cathedrals of earning’ (corporations). In the last few decades, however, it has been increasingly argued that university organizations need to be more similar to corporations and that there should be greater interaction between universities and corporations. Arguments along these lines have been put forward by politicians as well as business people, and have appeared in the literature of the sociology of science [1–3].

A significant development after the Second World War was the global expansion of multinational corporations, which in the 1960s and the 1970s aroused considerable debate [4,5]. These corporations were called into question because of their power in relation to nation states and employees. With the passage of time, this criticism has ceased in the wake of deregulation of markets and the ensuing internationalization of the world economy. This, in turn, has led to renaming of the multinationals. Nowadays they are often called global or ‘transnational’ corporations [6]. In a sense, they have even become role models for other types of organization through their obvious capacity to operate worldwide in a deregulated environment.

Since universities have always been highly international in their orientation and now are encountering strong pressure to behave like corporations, it is appropriate to examine whether they can be considered as multinational corporations. To answer this question, it is first necessary to analyse whether they have characteristics similar to or different from corporations, and then to examine to what extent they are multinational. The following sections of this chapter will elaborate on these two issues, followed by a final section presenting conclusions and implications.

Universities as corporations

Corporations

Basic decisions in society are made in two ways: through the political system or through the market [7]. In the first case, individuals express their preferences by casting their votes for persons they want to represent their interests. In the second case, the preferences are made explicit through consumption. In both cases, as

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Hirschman [8] has pointed out, people may express dissatisfaction with their representatives or with producers of goods and services in two ways: they may either switch from their earlier preferences ('exit') or express their dissatisfaction through different kinds of protests ('voice').

The distinction between politics and markets also has a parallel in relation to the theory of the firm. In a seminal work, Coase [9] pointed to the fact that not all transactions occur in markets. Instead, as a result of transaction costs, a number of exchanges take place inside organizations that we call firms or corporations. These entities, which in the literature are labelled as hierarchies [10], co-ordinate internal activities as well as interact with markets by purchasing their input and selling their output to customers.

For a long time, different kinds of hierarchies have been created to accomplish various tasks. However, the industrial revolution in the late 18th and the early 19th Century paved the way for much larger entities. These were able to produce much higher output volumes, which, through the development of communication systems, could be distributed to distant markets. A significant prerequisite for this development was the evolution of legal systems in many countries, which made it possible to attract risk capital from shareholders in addition to bank financing. The advent of the modern corporation was thus based on both technical innovations and the institutional innovation of the joint-stock company [11].

Before the introduction of joint-stock companies, business firms were either family owned or partnerships. This meant that, in most cases, owners had very close control over their firms. However, as capital was raised in the market, the number of owners increased and operations grew considerably, such that owners could no longer directly control their business. As a result, owners started to hire outsiders to manage their interest. In terms of the principal–agency theory, principals (owners) delegated to agents (managers) to work in their interest. As pointed out in the literature, and as is frequently shown in the business press, this may lead to problems, since managers may work primarily in their own interest rather than in that of their principals.

This reasoning leads us to identify four significant characteristics of corporations:

- origin: a relatively modern phenomenon in the wake of the industrial revolution;
- goals: providing goods and services for profit;
- ownership: shareholders;
- internal organization: administrative hierarchies.

These four characteristics are highly relevant to consider when we analyse whether universities are corporations, and if so, to what extent they are corporations.

Universities

In terms of *origin*, whereas the corporation is a relatively young phenomenon, the university has a very long tradition. It is thus difficult to claim that corporations constituted the role models for universities, since a number of European

universities date their founding to the early part of the 11th Century. According to Rüegg [12], the front-runner was Bologna, with an estimated foundation year of 1088. Paris and Oxford followed in the 12th Century. Soon after, a number of now prestigious universities such as Cambridge (1209), Salamanca (1218), Padua (1222) and Siena (1246) appeared. In the subsequent centuries, the university phenomenon almost exploded on the European continent, and by the middle of the 17th Century there were approx. 120 European universities ([13], p. 69). At that time, a similar development started in the U.S.A., with the first university being Harvard, founded in 1636. Together with Yale (1701), Princeton (1746) and Columbia (1754), Harvard belonged to a group of universities founded by confessional groups. They were followed by institutions founded by rich philanthropists (Johns Hopkins, 1876, Cornell, 1865, and Stanford, 1885) and by states (Minnesota, 1851, Michigan, 1855, and California, 1868) [14]. In the 20th Century, and particularly after the Second World War, many new universities and university colleges were founded. The organizational form 'university' has demonstrated a remarkable vitality. A frequently cited passage from the Carnegie Council of Policy Studies states that, out of 66 institutions existing in 1530 and still existing in the late 1970s, 62 were universities ([15], p. 9).

If we turn to the *goals* of universities, they were originally founded for educational purposes and the training of an administrative class. With the passage of time, particularly since the 1850s, research has become an increasingly significant activity [16]. In terms of their basic tasks, they can be said to have first concentrated on the diffusion of knowledge and subsequently on the production of knowledge. Both of these activities have characteristics that make the output of universities unique and quite different from those of most corporations.

The 'product' of education, if such an expression may be permitted, is unique in at least three aspects. First, by definition, students should not have prior knowledge of its content; otherwise they would not devote time to acquire it. Secondly, students cannot be expected to go through the same education more than once. Thirdly, the value of the product is often difficult to estimate in the short-term perspective. These three characteristics imply that students, in comparison with customers of corporations, are relatively uninformed. Hence an institution's reputation is a crucial attribute in the context of higher education.

Reputation is also a basic goal for the research activities of universities. This goes for individual faculty members, research groups and departments, as well as entire universities. Although a basic curiosity is always behind the efforts of scholars, their goal is to gain acknowledgement of their ideas and research results from their peers. Again, the difficulty of evaluating this output makes the reputation of the institution particularly important.

The significance of reputation for universities may provoke the counter-argument that this has also become an important feature of modern corporations. Various types of communication consultant are increasingly used to strengthen the corporate image, and branding has become a key activity [17,18]. However, corporations differ from universities in a very significant way: corporations use reputation as another means to make profit, whereas for universities, reputation can be considered as a goal in itself. Universities are not evaluated on the basis of

their profit-and-loss statement. Instead, they are assessed by means of the success of their students and their faculty members. Thus rankings of universities and professional schools rests on a combination of indicators, such as quality of faculty (research output, faculty with doctorates, female faculty, international faculty etc.) and graduate success (employment opportunities, career progress, salary and salary increases etc.) ([19], pp. 89–92). Similarly, rankings of universities, for example the *Academic Ranking of World Universities* by Shanghai Jiao Tong University, use different types of research-related indicator: Nobel Prizes, Fields Medals, highly cited research, *Nature* and *Science* publications and citations in the Web of Science. Size is only taken into account to a marginal extent (10%) [20].

The rankings clearly illustrate that the competition for reputation is a strategic component of university operations. An increasing reputation helps to attract better students, who, in countries where tuition and fees are charged, are able to pay higher fees, which, in turn, will make it possible to hire faculty members with even higher reputations, which, in turn, raises institutional reputation even further, and so on.

The goals of universities are closely related to their *ownership*, whereas we do not find distributed ownership as in quoted corporations. Even though a number of universities, particularly in the U.S.A., are private, this does not mean that they share the ownership patterns of modern corporations. Instead, their financing is based on endowments from friends, often their alumni. They do not ask for dividends; instead, we can once again refer to reputation as a significant motive. First, donors can expect direct effects on the basis of their own reputation. Secondly, they are interested in contributing to the reputation of their alma mater, which indirectly may have a positive effect on their own reputation. Clearly, these benefactors, particularly if their endowments are substantial, may want to express opinions regarding university governance. However, they are not there for profit, and once the donation has been made, it cannot be withdrawn. Unlike the corporate shareholder, who can exit if the corporation invested in does not perform well, the donors of universities can only use their voice to express their views. Their role is one of trustee rather than shareholder.

Another very significant category of university is the public university, which is totally dominant in Europe. They have state charters and obtain state support. Nevertheless, they have long differed from state-owned corporations and government agencies. They are not supposed to deliver profits, unlike the former, and do not constitute administrative units of government, unlike the latter. Instead they are expected to produce and diffuse knowledge. Public universities can therefore also be said to have trustees as their principals.

The arguments so far presented regarding goals and ownership have clear implications for the internal *organization* of universities. Traditionally, university leaders in Europe have been elected among peers. In recent decades, this principle has been challenged, as a number of universities have recruited vice-chancellors externally. A case that attracted much attention was the appointment in 2004 of Dr John Hood as the first external vice-chancellor of Oxford University since its foundation. Similar appointments, although less covered in the media, have occurred in many other countries [21]. They are indeed related to the basic issue

addressed here, i.e. whether or not universities are corporations which may be managed by externally recruited appointees.

A closer look at the internal organization reveals a number of features that complicate university leadership. At first glance, a university may look like an ordinary organization with divisions for the various disciplines. However, as noted earlier, academic reputation is the key variable in universities. In order to gain legitimacy, university leaders need to be strong in this dimension. This is the case, since universities are not hierarchies in the usual sense, but are rather an agglomeration of intellectual entrepreneurs with original ideas. This is particularly important at a time when expectations are high that universities will deliver useful research results and promote innovation.

In comparison with corporate executives, the leadership of universities operates under three important constraints. First, a basic principle in the research community is the principle of academic freedom [22]. The Research Policy Handbook of Stanford University, for instance, states:

“Stanford University’s central functions of teaching, learning, research, and scholarship depend upon an atmosphere in which freedom of inquiry, thought, expression, publication and peaceable assembly are given the fullest protection.” [23]

Even the Oxford Vice-Chancellor John Hood pointed to this in his annual oration in October 2007:

“The importance of academic freedom as an immutable value of our University is hard to exaggerate. And yet it is so familiar a concept, so much part of our working assumptions and our natural defences, that we may not often explore its meaning. A colloquium of university leaders that I attended at Columbia University a couple of years ago asserted that: ‘At its simplest academic freedom may be defined as freedom to conduct research, teach, speak and publish subject to the norms and standards of scholarly inquiry, without interference or penalty, wherever the search for truth and understanding may lead.’” [24]

As a result, the overall strategies of universities are difficult to formulate from the top. Instead, university leaders have to make sense out of the efforts of their faculty members.

A second complication for university leaders is that they do not have full control over the flow of finances. The more individual researchers and research groups are able to obtain their own funding, the more serious this problem will be. Recent efforts in many countries to increase the share of competitive funding through grant applications thus decrease the opportunities for university leaders to manage. At the same time, governments have urged university leaders to make strategic decisions.

Thirdly, university leaders, in contrast with their counterparts in corporations, have limited freedom to take control over the organization by appointing reliable friends. Instead, university leaders have to accept that universities basically constitute professional organizations with a strong influence of insiders on both the internal systems of governance and the entry of outsiders [25]. Both students and

faculty members are screened and are required to meet certain formally specified standards in order to be accepted. Similarly, students undergo continuous evaluation in the form of examinations, whereas faculty members are evaluated by peer review of publications and promotion decisions. This very elaborate quality-control system has no parallel in other organizations and therefore constitutes a very valuable asset of universities in their pursuit of reputation.

Do universities qualify as corporations?

Summarizing the above arguments (Table 1), we find that universities differ from business corporations in at least four characteristics. First, universities have a much longer tradition and constitute a vigorous, surviving institutional species developed already in the Middle Ages. Secondly, universities aim for reputation rather than profit. Today, corporations are eager to gain reputation too, but the ultimate aim is still profit.

Table 1

Characteristic	Corporations	Universities
Origin	19th Century	Middle Ages
Goal	Profit	Reputation
Ownership	Shareholders	Trustees
Organization	Hierarchy	Profession

Corporations and universities

Thirdly, the two types of institution differ in terms of ownership. Whereas business corporations are basically owned by dispersed owners who trade on stock markets, universities are either independent institutions with endowments or public entities with significant government support. The principals of both types of university are trustees rather than shareholders.

Fourthly, for both types of university, the conditions for leaders differ from those for their counterparts in corporations. The latter have hierarchies, with executives having a high level of authority. Universities, on the other hand, are professional organizations in which faculty members, through their expertise, play significant roles.

In terms of origin, goals, ownership and organization, universities thus seem to have other attributes to those possessed by corporations. Nevertheless, universities are increasingly adopting procedures from the corporate world. Universities are becoming more and more dependent on markets for students and grants. Departments and even whole universities formulate mission statements, and investment in information activities and PR (public relations) activities is continuously growing [26]. Accountability has become a key variable. Internal economic-control systems and negotiations regarding overheads have for a long time been a reality for faculty members. But the mere fact that universities are adopting the attributes of business corporations does not in itself qualify universities as corporations.

Universities as multinationals

Multinationals

Multinational, global or transnational corporations are the result of market expansion of companies that once were operating locally and on a relatively small scale. A significant prerequisite for their development, as shown by Chandler Jr [27], has been the growth of communication systems facilitating the transportation of goods and the exchange of information. This, in turn, has provided opportunities to co-ordinate flows of products from different kinds of sources to final customers. U.S. multinationals at first mainly operated domestically on the vast North American continent. However, opportunities abroad and, later on, anti-trust legislation stimulated international expansion. In the 1960s, this development aroused a debate in Europe on the threat this expansion constituted [28].

Over time, multinationals have been defined in various ways. Vernon [4] required establishment in six foreign countries, whereas the United Nations [30] required only one, and the latter definition has become widely accepted [31]. The conventional definition of multinationals has recently been challenged, however. Forsgren, Holm and Johanson [32] argue that it is too narrow a point of view to focus solely on ownership. Instead, they argue for attention to the international character of relationships and business exchanges of a particular corporation. In this way, it would be possible to handle different degrees of multinationality and organizational arrangements such as joint ventures and licensing.

Universities

Having established that multinationality has become a significant characteristic of a number of large corporations, we can now question whether universities can claim to be multinational. In so doing, it is appropriate to separate the two main activities of universities: knowledge diffusion (education) and knowledge production (research).

Multinationality in knowledge diffusion

The international character of university education can be traced back to its earliest days [33–35]. The mode of internationalization differs from that of corporations, however. Universities have attracted foreign students to their home campuses, rather than setting up foreign operations. This is an effect of the character of universities: they are seats of learning that gather students for knowledge delivery rather than having professors visiting them. Principally it goes back to the fundamental idea of the university: to be a place for the exchange of ideas.

Although the early mobility of students was basically the result of individual initiatives, it is today much more organized. Academic institutions, particularly in the latter part of the 20th Century, became quite active in developing student-exchange programmes. In this way, the internationalization of higher education became more intentional and institutionalized than before. It was not just a matter of individuals coming from abroad, but was part of a network-building development among institutions across national borders. These efforts added to the reputation of institutions, making them more attractive to

prospective students. At the same time, quality control became a major task of academic institutions and instrumental to their reputation. There are therefore great risks involved in the outsourcing of such a fundamental activity as education. These risks call for a very strict quality control of partners.

The increasing exchange of students has required adaptations in the delivery of education, since modern universities have abandoned Latin, the lingua franca of the Middle Ages. Instead, they have adopted another widely spoken language, English. In so doing, they created obvious problems in countries where faculty members are not native English speakers. In cases when their students have even less of a command of English, quality can be expected to suffer even more. These circumstances are important to keep in mind as European universities are changing their delivery approaches within the Bologna process.

Nonetheless, the fact that universities have increased the internationalization of education through student-mobility programmes does not qualify them as multinationals according to the strict definition. Yet some universities have moved in that direction, particularly in management education. Offshore investments can be found for instance in Singapore: ESSEC (École Supérieure des Sciences Économiques et Commerciales), INSEAD (Institut Européen d'Administration des Affaires), the University of Chicago Graduate School of Business and the University of Western Australia [36,37]. These examples and others provide evidence that some universities are moving towards a status where they could be labelled multinationals by the strict definition. The evidence so far is nevertheless limited, and foreign entries have not been without problems; for example, the University of New South Wales established a campus in Singapore in the fall of 2007, but closed it down after a very short time [38].

Another less ambitious model of internationalization is the international joint venture. Here management education again provides examples. In Germany, for instance, there are at least three such schools: Koblenz, a collaboration with the Kellogg School at Northwestern University [39]; Hannover, with faculty from the Krannert Graduate School of Management at Purdue [40], and Frankfurt University's Goethe Business School, a joint venture with the Fuqua Business School of Duke University [41].

A related mode of internationalization is the strategic alliance, which can be seen as a further development of exchange programmes. This can take the form of joint degrees, such as those of CEMS (Community of European Management Schools and International Companies), a consortium of 16 European business schools [42]. Other examples are networks of universities such as the Coimbra Group (with long-established multidisciplinary universities in Europe as members [43]) and UNICA (Network of Universities from the Capitals of Europe; a network of 41 universities from the capital cities of Europe [44]).

In terms of education, we can conclude that, particularly in management education, certain steps have been taken towards multinationality. However, the bulk of internationalization activity consists of student and Ph.D. mobility between universities. In other words, universities have, to an overwhelming degree, attracted students to come to them rather than universities going to the students. According to the reasoning of Forsgren, Holm and Johanson [32], these exchanges of people and the subsequent diffusion of knowledge could be seen as a strong indicator of multinationality. However, at the same time, universities are basically national,

as labour markets are still to a very high extent national, and universities act as significant screening devices in these national labour markets ([45], pp. 232–237).

Multinationality in knowledge production

In the previous section, one conclusion was that education since the early beginning of universities has been international. Similarly, it can be claimed that this is also the case for knowledge production (research). An often-cited source of inspiration for this is Sir Francis Bacon, who argued that science had to be used for the common good. Therefore the communication of research results and the free exchange of ideas should be a crucial characteristic of science. For this purpose, the academy (Solomon's House) would be a suitable way to organize the exchange of ideas. These thoughts, presented in *The New Atlantis*, are considered to have been the inspiration for a large number of academies, among them the Royal Society in 1660. They were also instrumental in promoting the rapidly increasing exchange of ideas in the 17th and 18th Century [16].

If we look at the multinationality of research in terms of the strict definition, i.e. investment in foreign countries, we must once again conclude that universities are basically not multinationals. Even though universities occasionally have research facilities in other countries for special purposes (e.g. observatories), most of them still concentrate their facilities at their home base. However, if we use the definition of Forsgren, Holm and Johanson [32] and focus on the exchanges of people between universities, it is quite evident that the conclusion will be the opposite. Clearly, there is a considerable volume of international exchange between scholars, and this exchange is increasing rapidly. Important characteristics of this exchange are personal meetings through visiting scholars, conferences, seminars, colloquia etc., worldwide. The number of such events is constantly rising, as is the number of participants at each meeting.

An important factor for the intensified exchange of ideas internationally is the increasing institutionalization of the world of science [46]. Thus all disciplines demonstrate a steadily growing number of professional associations, bringing together scholars in different fields of study. These organizations are, in many cases, instrumental in the foundation of scholarly journals, which have become a significant means of communication in the present international academic community, and are likewise increasing in number. Regional or disciplinary groups who are dissatisfied with the existing outlets start their own journals in order to communicate their ideas. Behind them are publishers, who see an opportunity to earn money on a product where academics are willing to work voluntarily, and which may generate profit through library and membership copies.

This process, in turn, has resulted in the scientific world facing an increasing number of publications, with attendant difficulty in reading everything published, even in one specific field. This circumstance has led to the development of methods to evaluate scientific publications, i.e. bibliometrics [47]. Journals are ranked according to their impact in terms of the average number of citations of their articles. Scholars are increasingly evaluated on the number of publications, the outlets where they have published and to what extent they are cited. These means of evaluations work less well in some disciplines than others, however. An evaluation at Uppsala University in 2007, for instance, revealed that out of the

20 000 publications disseminated in 2002–2006, only approx. 40% were included in the Web of Science. For publications in medicine and pharmacy, the share was 80%; for science and technology, approx. 60%; and for the humanities and social sciences, less than 10% [48]. These figures should not necessarily be seen as a sign of quality differences. Rather, they reflect the character of the Web of Science and differences in publication channels among the scientific fields. Needless to say, the cultural variation in study objects plays an important role in this context. For scholars in the humanities and the social sciences, these differences may imply that communication in languages other than English (e.g. French, German, Spanish and other mother tongues) may be appropriate. Furthermore, the journal landscape varies considerably across disciplines. As pointed out by Whitley [49], this may be an effect of variations in task uncertainty and the disciplinary dependence among scholars in a scientific field.

Thus we can conclude that disciplines are increasingly internationally orientated, though with some variance. Communication among scholars has been facilitated enormously by the development of the Internet. Communication, which previously could take several days or even weeks, is now occurring in a matter of minutes or even instantaneously. Grant applications and joint papers may be produced in a way that was unheard of before and at a pace that could not have been imagined. In addition, the dissemination of scholarly work is increased through web pages and search engines. This latter consequence in turn even constitutes a challenge to the other publishing channels we have mentioned and to bibliometrics by offering opportunities to get research widely known through channels other than conventional means.

All in all, there is considerable evidence of mounting pressure for an increasing multinationality in research. At the same time, there are counter-forces. The most important appears to be the desire of politicians and corporate leaders to consider research as a direct means for growth and prosperity. Science policy can even be considered to be the modern defence policy in many countries: as military defence is reduced, science appears as the weapon to fight other countries in the world market. As mentioned earlier some sociologists of science argue that we can observe a new mode of research ('Mode II', [2, 3]), whereas others [1] even plead for a close collaboration between academic institutions, industry and political bodies (the 'Triple Helix'). It is evident that these tendencies work against internationalization. They imply that national or even local considerations become important in resource allocation and the evaluation of research. Universities therefore seem to be part of what has been labelled 'glocalisation', i.e. strong forces towards globalization together with strong counter-forces towards local action [50].

Do universities qualify as multinationals?

There is no doubt that very few universities are multinationals in the strict sense. If we apply the requirement of investment abroad, it is only recently (and to a limited extent) that universities have made such moves. In comparison with multinational corporations, these foreign direct investments are meagre. Yet, if instead we focus on exchanges of individuals and ideas, there is significant evidence that universities qualify. Student mobility has always been significant. In recent decades, it has increased and become more institutionalized through formal

exchange programmes, joint ventures, strategic alliances and even some offshore investments. In the same way, multinational research has grown and become increasingly institutionalized through the formation of professional associations, the foundation of journals, the expansion of academic meetings and international benchmarking. Simultaneously, there are forces towards a more local focus both in education and research, as these activities are expected to contribute to the immediate development of local, regional and national economies.

There is a final caveat. It is questionable whether the described multinationality should be attributed to universities. Strictly speaking, it is constituted by individual exchanges of students and university scholars and not of universities.

Conclusions

Answering the question

This analysis has shown that, even if it might be tempting to label universities as multinational corporations, this is far from self-evident on close inspection. First, universities have characteristics that make them quite different from corporations. They have different origins. Their goal is reputation rather than profit. Ownership, if this concept even can be applied to universities, is very different. Finally, the organization of universities does not allow the same degree of control of employee behaviour and financial flows. Thus, even if universities today are increasingly adopting management methods and rhetoric, they cannot be labelled corporations. They remain professional organizations, many with long histories, often with unclear ownership structures, aiming for reputation. These significant characteristics, which make universities special, have probably also been instrumental for securing the survival of this particular organizational form for almost a millennium. If these fundamental characteristics were to be changed, universities would no longer be universities, but corporations. This would, in turn, suggest the risk that they could no longer perform their basic tasks of education and research.

Applying an older strict definition of multinational, i.e. direct investment in at least one foreign country, we have also seen that very few universities belong to that set. However, if we instead use a more recent definition of multinational, i.e. focusing on exchanges of people, the conclusion is otherwise, for it is quite evident that universities constantly engage in different types of intense international exchange. Yet, we may nevertheless dispute the multinationality of universities, since it is not the universities themselves but their students and scholars who are taking part in this flow. Therefore it seems fair to say instead that universities are significant nodes in the transnational world of learning.

Implications for university governance

The conclusions we have presented bear certain implications for university governance. They point to the need to acknowledge the special character of universities. This is in the interest of both universities and their principals, be they private or public, since in order to stimulate innovative research and promote high-quality education, the best that trustees can do is to rely on the experts in the disciplines. The role of the trustees is to provide stable and transparent rules for universities and not to make direct interventions or use them for political purposes and thereby risk hampering innovation and the quality of education.

The rules set up by the trustees are not only important for the relationship between universities and their trustees. They are also crucial for university–business relationships. These rules must provide stable platforms for harmonizing the long-term perspective of the university and the shorter-term goals of business. For both parties, a mutual understanding of the differences in their working conditions is crucial for the establishment of lasting and fruitful co-operative links.

This argument could be interpreted as a plea for leaving universities in splendid isolation. That would be unfortunate. Even if there are good reasons to keep a system of university governance that has survived for centuries, it is nevertheless important for universities that politicians and the business community pay close attention to them. This will be to the benefit of universities, if the interests of politicians and business people are based on realistic expectations and proper knowledge about the fundamental characteristics of universities in order for the relationship to be productive.

Universities today are to an increasing extent evaluated through quantitative business-driven procedures. This implies a tendency to focus less on what scholars actually have to say (content) than on where they say it (publication outlet) and who will read it (citations). Clearly, the risks associated with this development may threaten both innovative research and quality in education. However, with such an excellent survival record over the centuries, there should be a fair chance that the university will be able to handle this and other challenges of transnational learning and the further growth of a knowledge society.

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