

Where is von Humboldt's University now?

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The future of higher education is a matter frequently discussed in higher education conferences. At some stage at least one participant will assert, to general approval, the significance of combining teaching and research in the university. The commitment to both teaching and research is regarded as central to the function of the university. In Australia, vice-chancellors defined universities as “Educational establishments uniquely characterised by their commitment to research”. Elsewhere the definition has been inverted in the form “Universities provide teaching in an atmosphere of research”. Yet in the long history of universities, research is a comparatively recent addition to teaching. It is generally attributed to the birth of the “modern” university at Berlin, early in the 19th century. Wilhelm von Humboldt, identified as its intellectual architect, prescribed research as a key component of its educational structure.

Wilhelm von Humboldt (1767-1835) and his younger brother, Alexander (1769-1859) both achieved lasting international academic renown: Wilhelm in linguistics, and anthropology, Alexander as a geographer, traveller and scientist. They were born in Potsdam in Prussia into an affluent family. Their father, a member of the royal court, provided access to the world of government and politics. Of equal importance was their involvement in the closely linked sphere of Prussian intellectual life. Schiller and Goethe, were friends. They both studied at Göttingen University where Wilhelm studied jurisprudence, philology and natural science. After a short visit to Paris in 1789, the time of the French revolution, he returned to Berlin and entered the Prussian civil service. His work, as legation counsellor, proved unsatisfying. He resigned in 1791, the year of his marriage and moved to Thuringia. Over the next decade he wrote and studied there, working closely with Schiller, Goethe and Wolf, before moving to Paris in 1797. He was recalled to the civil service in 1801, first as the Prussian envoy to the Vatican, and then, unwillingly, to Berlin in 1808 as director of the culture and education section of the Ministry of the Interior. In this position, Humboldt was responsible for implementing plans to reform the whole of the Prussian school system and establishing the new Berlin University. Restructuring of the government led to his resignation from the Ministry in 1810 and a posting as Ambassador to Vienna but he remained chairman of the founding committee of Berlin University (Schlesier, 1852; Sweet, 1980).

Political and social context

The circumstances surrounding Humboldt's appointment to and resignation from the Ministry of the

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Interior are significant. The defeat of Prussia by Napoleon at Jena in 1806 and the subsequent treaty of Tilsit left a diminished and impoverished state. One third of its land area was lost, a massive indemnity was to be paid, and it was occupied by French troops. The developing state created in the 18th century under Frederick the Great was destroyed. Recovery focussed on rebuilding the state through social and political change that drew on a growing German nationalism, cultural prestige and economic revival (Thomas, 1973).

The state was able to retain its king and government; national authority and administrative power remained with the established bureaucracy. Demands in Prussia sought military, political and social change to regenerate a state that would in the future be able to withstand the power of France. Changes for the army, decentralization of some political powers to provincial authority and provision of wider citizenship and citizen rights were rapidly effected. The educated, middle-class intellectual families, who provided the bureaucracy, retained their social status. It was this section of society that constituted the audience for Fichte's 'Address to the German Nation' (1808). In these lectures, Fichte asserted that Germans were "called upon to begin the new era as pioneers and models for the rest of mankind" (Anderson, 2004, p.54). Reform of education was seen as a key component. Schools outside the major centres had failed to implement the eighteenth century reforms; universities, with the exception of Göttingen, were weak and inadequate and after 1806 had been forced to close. Regeneration was seen as the responsibility of the privileged educated class, not merely on the ground of self-interest, but as their duty to the state.

Berlin University

Establishment of Berlin University provided Humboldt's major political achievement. Proposals to establish a university had been discussed in the eighteenth century, but were revived following the loss of Halle and the closure of other universities as a consequence of the defeat by Napoleon. A new university was needed, not least to educate civil servants and other professionals in Prussia. The decision to establish a new university in Berlin enabled it to be planned on the basis of involvement with the existing institutions, notably the Royal Prussian Academy of Sciences¹, the Academy of Arts and the Charité hospital, already a national centre of medical education (Anderson, 2004).

Previous discussions had envisaged a series of special schools, merely to complement the academic facilities of these institutions. Now the symbolism of establishing a new university in Berlin was reinforced both by the aspirations of intellectuals — such as Humboldt — but also by the more utilitarian requirements of the senior state bureaucrats, many of whom, like Humboldt, had studied at Göttingen University in Hanover. In a period when universities elsewhere had declined (student numbers in the German states decreased from 9,000 in 1700 to 6,000 in 1800, a period when the total population expanded), Göttingen, with its reformed curriculum and structure had flourished educationally and professionally. It was seen to have established a model for a modern university (McClelland, 1980; Miyasaka, 2005).

Those acquainted with the processes of establishing a new university in the 20th century can have no

doubts about the achievement of Humboldt and his colleagues in establishing Berlin University in 1810. Equally clear is Humboldt's commitment to creating a university structure that met the needs of a new social and intellectual era. Prior to taking office as the director of the culture and education section of the Ministry of the Interior, he had written extensively on relevant issues: the role of the state in education, the structure of educational institutions, the functions of schools and universities, and the purpose of education. Moreover, he was well aware of the reforms already instituted at Göttingen. But perhaps of greatest importance was the particular skill of Humboldt in identifying and bringing together all the relevant material. Schiller had noted in a comment written about Humboldt as a young man:

“There is a totality in his make-up which one very rarely sees. He takes an exceptionally objective interest in the subject at hand, ... requires from one the utmost precision; and at the same time he guards against one-sidedness ... by his remarkable aptitude for grasping and examining the thoughts of others (This) is also helpful to him: indeed it is very necessary for him to be set in action by an external stimulus ... because he can never originate something but can merely analyse and combine.” (quoted by Wertz, 1996, p.5).

In particular it proved important that his colleagues at the ministry included Nicolovius and Süvern — who implemented the reform of the Prussian schools system — and Schleiermacher, who both guided planning for the university and, after Humboldt's resignation, implemented its structural and constitutional establishment (Bruch, 1997).

Reform of the schools was important both through the general improvement in education that ensued and in raising the level of preparation of students for entry to the university. Changes, influenced by Pestalozzi, had already been agreed before Humboldt took office and were implemented by Nicolovius and Süvern. Modernisation of the school curriculum in the secondary schools (*Gymnasien*), the requirement that teachers be qualified by passing a state examination, and full implementation of the school-leaving examination (*Abitur*) as the entry requirement to the university, were to be crucial to achievement of university reform (Wertz, 1996).

In developing plans for the university, Humboldt's own neo-humanist ideals were conditioned, in part, by his own experience in state administration. Acceptance of discovery of knowledge as well as its transmission was shared by the bureaucracy. While Humboldt regarded this primarily as a means of self-development, the bureaucrats saw it also as valuable for professional training and job preparation. Schleiermacher was to prove important also in reconciling the neo-humanist and utilitarian visions (Bruch, 1997).

The measure of Humboldt's contribution is that, in less than two years and from these diverse elements, he synthesized a whole that was greater than its parts: the Royal Friedrich-Wilhelms- Universität zu Berlin began its work in 1810. That this institution would provide a model to transform universities in Germany and elsewhere during the following century is a clear mark of this achievement.

Academic Structure of Berlin University

The classical four faculty structure of universities had been modified by the middle of the 18th century with replacement of the decayed Faculties of Arts by new Philosophical Faculties. Initially regarded as supplying necessary preparation before professional study in the senior Faculties of Law, Medicine, and Theology, at Göttingen the Philosophical Faculty had extended its scope and enhanced its status. As well as philosophy the new Faculty embraced the full range of subjects comprising general education: classics, modern languages, history, natural science, political economy and mathematics. In Berlin, the Philosophical Faculty was intended to be the intellectual centre of the University. The Faculty reflected the Kantian concept of the unity of knowledge and the continuous, inexhaustible task of its discovery. Combined with the expectation that, after having passed the *Abitur*, students would need little further instruction in established knowledge, they would be able to participate in Socratic discussion. In effect it established what would be identified in the 20th century as the formation of a community of scholars and students engaged in the task of seeking truth (Jaspers, 1923). The structural implications of this change can be considered to fall under three headings: academic autonomy, teaching and research, and the role of the state.

Academic autonomy. Academic freedom to study and to teach, free from state and religious control had been established at Göttingen (Anderson, 2004). Such freedom was fundamental to the ability of the Philosophical Faculty at Berlin to pursue the ideals of truth and the inexhaustible search for knowledge. In his memorandum “On the spirit and the organisational framework of intellectual institutions in Berlin” (Humboldt, 1809) defined this requirement. The task of the cultivation of science and scholarship requires freedom as a dominant principle; moreover, those employed in this task must be assured of freedom in their intellectual activities. In part, Humboldt’s concern was to differentiate clearly between the role of the University, in its pursuit of pure knowledge, and of the schools (including the specialised schools) and the Academy, which might properly respond to the needs of the state. But he also extended the concept of professorial freedom (*Lehrfreiheit*) to students (*Lernfreiheit*) so that they could select their own programmes of study to best develop their abilities.

Teaching and Research. Study of Humboldt’s writings on reform of the universities demonstrates the importance he attached to both teaching and research; implicit in his works is a belief in the unity of teaching and research (though nowhere does he write this familiar phrase (Lundgreen, 1997)). Explicitly Humboldt describes the purposes of teaching and research, though the meanings are not always immediately evident to modern readers.

Education itself is seen as a unity, falling into three natural stages: elementary education provides the ability to learn; secondary education provides general education through attainment of a mastery of established knowledge; and the university wrestles with problems whose answers are not known (Wertz, 1996). Freed

from the need to transmit new facts, the university can guide the student “to a point where physically, morally and intellectually he can be entrusted with freedom and the right to act autonomously.” (Humboldt, 1809). The ability to think rationally requires the university teacher to convey the methods and techniques of enquiry rather than the detailed results of scientific study. The purpose of study in the Philosophical Faculty was achievement of *Bildung*, a combination of understanding derived from the pursuit of truth and of self-development.

A discovery-orientated attitude should prevail in university teachers but those who believed that “..the pursuit of knowledge ... can be cultivated simply by piling up unconnected facts ... irremediably and permanently (betray) ... the cause of learning” (*ibid*). To Humboldt, mere contribution to factual knowledge was of little importance and application of knowledge was trivial. *Bildung* and development of ideas were the true goals of teaching and research (Beppu, 2005).

While public lectures were important and popular as a social activity and the means of enhancing academic reputations, as a means of instruction university lectures were of lesser significance. But in the university discussion of ideas with students was essential. In the university “the teacher does not exist for the sake of the student; both teacher and student have their justification in the common pursuit of knowledge.” (*ibid*). The centrality of the relationship was expressed by Humboldt in a frequently quoted essay,

“Thus the university teacher is no longer the teacher, the student is no longer the learner but also researches himself, and the university teacher leads his research and supports the student in it. For university teaching enables an understanding of the unity of knowledge and makes demands on the student’s creative energies. For the understanding of knowledge is a form of creativity, even if only of a subordinate kind. This is why university instruction has no limit as its end point, and for the student, strictly speaking there is no fixed mark for its completion.” (Humboldt 1964, p.170).

State and University. Establishment of Berlin University and Humboldt’s own role in it were explicit indicators of the authority of the state with respect to the university. Yet in relation to the academic work of the University, Humboldt was unequivocal in regard to the need to restrain the state. “The state must indeed be aware that it can only have a prejudicial influence if it intervenes” (Humboldt, 1809). Nevertheless, there are areas where the state has legitimate interest in and responsibilities for higher education. It is an obligation for the state to organise education so that secondary schools can bring students to a level that enables them to benefit from study at the university. Equally it is proper to ensure that the quality of training provided in the professional Faculties of universities meets the requirements of the state. In both cases, state examinations are appropriate.

To achieve these objectives “..the state must supply the organisational framework and the resources necessary for the practice of science and scholarship” (*ibid*). The traditional but limited endowments of universities in the German states had largely eroded by the end of the 18th century and vanished after 1806. Although Humboldt had initially sought an endowment in land for Berlin University, he supported the alternative proposal for direct state funding. Humboldt’s belief in this and other regulatory matters, was that

the state would use its powers wisely and fund the university well. To the extent that the initial funding for the University and salaries for the foundation professors were relatively good, this was justified but no endowment was provided; Schleiermacher's subsequent desire for firm guarantees proved wiser though ultimately inadequate (McClelland, 1980)

The concern for academic independence was not extended to institutional independence. As well as accepting state funding, Humboldt also recognised a need for state regulation and control of student discipline. Most notably he argued strongly for the right of the state to appoint the professors. In part this was to preempt internal restraint on intellectual freedom by preventing academic conflict and nepotism; primarily it arose from his acceptance of the direct interest of the state in appointment of what were effectively state officials.

“The right of appointment of university teachers must be reserved exclusively to the state; it is certainly not a good arrangement to grant more influence to the faculties than a prudent and fair-minded body of guardians would allow.” (Humboldt, 1809).

The privilege of a professor to speak without restraint in the field of his expertise must be maintained; but as a citizen and an official he was subject to the normal state restrictions in other matters (Anderson, 2004). Within the University, the rights of the professors to self-government, election of deans and nomination of the rector were sustained but student immunities from legal processes were curtailed.

Humboldt's Legacy

Berlin University, the initial years. Implementation of the internal academic structure of the new university was dependent on its staff and students. Professors were appointed by a special commission, guided by Humboldt and under the chairmanship of Schleiermacher. (McClelland, 1980). There is no evidence that most of those appointed shared Humboldt's neo-humanist vision; indeed even he did not regard this as essential,

“... there will naturally be many who are active in (the university) to whom (a) tendency towards depth and breadth is alien and there will be some to whom it is repugnant. In its pure and unqualified form this tendency will in any case, be found only in a handful of persons. It need, however, find expression only occasionally, here and there, to have a widespread and enduring impact.” (Humboldt, 1809).

These limitations might be expected to apply particularly to the professional Faculties where the reforms would have least impact. In fact, all three of the foundation deans in these Faculties — including Schleiermacher in theology — subscribed to the concept of the unity of knowledge and Fichte was appointed to be the first rector though he resigned after only one semester (McClelland, 1980). Others of the initial 33

professors, committed to the pursuit of knowledge, were recruited, some from the Academy, all with established reputations. Indeed, Humboldt attracted some criticism for failing to appoint younger and less famous professors to teach the newer and more speculative aspects of natural philosophy (Schlesier, 1852).

Expectations placed on students were perhaps even more stringent. At the end of the 18th century students were widely regarded as wild, riotous, protected from the rigours of the law by academic privilege. To meet the requirements of the Philosophical Faculty, ability, diligence and dedication were necessary — those seeking utilitarian ends were not expected to apply. The constraints Humboldt envisaged for professors would extend equally to students, and of those admitted, many would not succeed. Moreover to be admitted required attainment of good grades in the *Abitur* at the end of complete general education either privately or in a good *Gymnasium*. Implicitly, enrolment would have been restricted to a doubly elite group who possessed both academic ability and financial affluence.

Given these constraints it could not be unexpected that in the initial years the largest Faculties were Medicine and Law and in all Faculties a large Majority of students came from affluent families. By 1817, of the 850 students, four-fifths were in the Faculty of Medicine and three-quarters came from affluent families (McClelland, 1980). Fichte was deeply concerned about students' lack of dedication to the ideals of the Philosophical Faculty rather than utilitarian results and identified the need for scholarships as Humboldt had in his prescription for reform of the secondary schools (Humboldt, 1964). But neither the university nor the state sought to widen the social classes from which students were recruited. Humboldt's objective of *Bildung* was intended to yield a small group of wise and rational graduates who would serve the state well. Subsequent improvement in the number of good *Gymnasien* and levels of attainment in the *Abitur* led to increases in enrolment in the University — to 1700 in 1824 — and particularly in the Philosophical Faculty, (McClelland, 1980). Problems with student discipline and other matters of concern to the state resulted in the Carlsbad Decrees in 1819 and significant change in the states relation with the universities²⁾.

German Universities in the 19th Century. Any discussion of Humboldt's contribution to German universities has to start with a preamble. His influence can only have been indirect as his writings on education and the universities were not published until the end of the century. Their discovery and publication, at a time when celebration of the centenary of Berlin University was approaching provided opportunity for reconsideration of his contribution to the university that had by then become the most prestigious of the renowned German university system. The consequent attribution of the growth and success of the German system to Humboldt was timely but to what extent it was more convenient than appropriate requires consideration. The rector of Berlin University in 1892 had proclaimed that “the dominance of neohumanism is broken” (Anderson, 2004, p.154).

By the end of the 19th century, German universities were a source of national pride and international envy. With economic growth the states could provide resources at levels unequalled in other countries and support world-leading research in the sciences and humanities. They attracted large numbers of foreign

students, mainly to engage in research and graduate studies in their modern laboratories and libraries. Unlike other European countries, research had been established in the universities rather than the academies in part at least on the basis of the structure established by Humboldt in Berlin (Humboldt, 1809). In this Humboldt had been supported by the bureaucracy on the basis that this was less expensive than financing research in the academies. By 1890, with research as the central purpose of the university, its funding had become the largest item in the budget of Berlin University (Anderson, 2004; McClelland, 1980).

The expansion of science and scholarship through the century had changed the nature of research from what was envisaged by Humboldt. The word “*Wissenschaft*” to Humboldt implied a unity of scientific knowledge; as the expanding and differentiated studies developed its implied meaning evolved to one of detailed knowledge of specialized science and scholarship. While the depth and breadth of Humboldtian *Wissenschaft* evolved to more and more about less and less, the unceasing process of enquiry had become incorporated at the centre of academic life.

The mechanism for the growth of research in the universities lay in development of seminars and institutes. Initially they took the form of a small group of students invited by a professor to join him to read and discuss difficult texts. In Berlin, Schleiermacher regarded the seminars as the means of pursuing personal development and the pursuit of *Wissenschaft* for those students with ability and dedication; Liebig at Giessen provided a laboratory for students in his institute but initially it had to be funded from his own resources. The numbers and resources for seminars and institutes increased over time, slowly in the early years, rapidly after 1870, and accompanied by state control as they became institutionalised. Directors were appointed by the state which determined the levels of support and the location of new facilities. The directors, professors in the university, increasingly concentrated on their work in the seminars or institutes rather than their Faculty duties as teachers. Ironically, what had started as an effective implementation of the Humboldtian ideal of *Bildung* through *Wissenschaft* had evolved into a utilitarian process for training and specialisation.

By the end of the century, some 35,000 students were attending German universities — about 1% of the age cohort — largely from affluent upper-middle class families. An overwhelming majority had attended *Gymnasien* and were well prepared for university study. Many did not complete degrees; few became attached to seminars or institutes: only about 4% obtained doctorates, despite the significant social prestige it conferred. The majority would leave the university after 3 or 4 years, qualified by state examination for entry to the civil service or the expanded professions. The great expansion in student numbers after 1870 mirrored economic growth, which, in turn, had expanded state revenues and bureaucratic scope. Increased student numbers required increased numbers of teachers and the growth of research in increasingly differentiated new areas of specialisation required more professors. In Philosophical Faculties, where the increases in student numbers were largest, the number of students to each full professor deteriorated from 17:1 to 34:1 between 1870 and 1905 despite an increase of two-thirds in the number of professors. The much larger increases in the numbers of associate professors and *Privatdozenten*, contributed cheaply and disproportionately to the provision of teaching (McClelland, 1980). To a large extent, the deeply conservative professors were unwilling to see

dilution of their privileged academic and social standing and diminution of their earnings from student fees. To protect institutional standards, appointments to full chairs would be endorsed by professors only for those with outstanding research reputations, reflecting the competitive nature of research, the hierarchy of universities and the strength of the academic market; Max Weber is reported to have commented, “many are called but few are chosen” (McClelland, 1980, p.181).

The German states, through their bureaucracies, exercised increased authority over academic issues, including appointments. As they grew, universities, lacking any endowment or private funding, became ever more dependent on the states. In part this originated from the Carlsbad decrees in 1819 when, to impose discipline on students and professors, an agent was placed in each university. The agent was empowered to exclude students and professors who demonstrated incompetence or misuse of their office by acts inimical to public order or existing political institutions. Professors were no longer privileged subjects of the king but civil servants and citizens. In practice the constraints did not weigh heavily on the increasingly conservative professoriate and the agents and bureaucrats proved supportive of academic interests. Yet in principle the changed status provided explicit constraint on the academic freedom of *Lehrfreiheit* and *Lernfreiheit*.

Far from Humboldt’s aim of limiting the role of the state to non-academic affairs, by the end of the century there appeared to be a unity of state and university. The relationship appeared mainly to be benign. Funding was adequate, salaries improved, resources for research matched both the universities’ and states’ expectations. At this time, Paulsen (1906) identified research as the primary duty of academic staff and the aims of the universities as teaching professional scientific knowledge, ensuring the ability to undertake research and sustaining a philosophic culture. Acceptance by the universities of their role of supplying the states’ needs fitted comfortably into the widespread nationalism that marked the approach of the 20th century. In influential society it was celebrated that the creativity of Humboldt and the wisdom of the government in establishing Berlin University had proved capable of evolving into a system that brought renown to the nation at the end of the century. How this achievement was to be reconciled with the ideals that guided Humboldt gave rise to what would be designated by revision in the 20th century as the Humboldt myth (see e.g. Ash, 1997).

Humboldt translated

By the latter part of the 19th century the achievements of the universities in Germany attracted increasing numbers of foreign students and added to the growing economic and political influence of Germany under Bismark. Their academic provision achieved standards not attained elsewhere and clearly contributed to the benefits derived from the second industrial revolution and from national unification. By the 20th century it was conventionally asserted that this success derived from the Humboltian ideals; more convincingly it is attributable to the emergence of a highly competitive research system (Ben-David, 1977). Inevitably it attracted interest from other countries. The consequences varied from attempts to import the whole German

system to introduction of selected elements attractive to individual institutions. In the 20th century retrospect these responses became identified with the pervasive influence of the fundamental Humboldtian reforms. The effects in three countries, Japan, England and the USA, illustrate what modifications resulted from translation.

Japan. Following the Meiji restoration (1867), Japan sought to identify key Western developments that could contribute to modernisation of the country. Education was identified as an essential component for rapid industrial growth. The Ministry of Education, established in 1871, dispatched numerous students to a wide range of countries and received reports from study groups sent to Europe and North America. Compulsory school education was introduced based on the state systems in France and Germany. Clearly the most advanced university system was that found in Germany.

Tokyo Imperial University (1886) was established as the first modern university in Japan. With two exceptions, the Ministry imported the German system in its entirety. The exceptions were to replace provision for teaching divinity by engineering and agriculture; and a failure to provide for seminars and institutes in the formal structure. Shortly after its formation, a graduate school was nominally added to the structure of Tokyo University but this had neither teaching nor administrative function for graduate students. Research formed a basic component of the University, initially implemented largely by the recruitment of foreign professors (on short contracts) selected from countries where reports indicated there were high levels of scholarship in designated disciplines.

The purpose of educational reform was to equip all citizens with the ability to serve the state. To this end, the Imperial University was to instruct and train students to meet the needs of the civil service and the rapidly expanding professions. Even so, for undergraduates, as in Germany, teaching was largely restricted to large formal lectures. The major professorial commitment was to research. Graduate students, few in number, benefited from individual teaching as professorial apprentices.

Despite vigorous debate and political argument about future provision for the University (Hata, 1998), the Ministry of Education retained full control. The Ministry was responsible for administration, finance and planning; it determined line-item funding, numbers of staff and students, and breadth of the curriculum and made all professorial appointments. Internally, the German chair system endowed the professors with full academic authority and conformed to the principle of *Lehrfreiheit*. At the same time, the system constrained both the role of the president and modifications to academic practice.

The university system was allowed to grow: a second Imperial University was created at Kyoto (1897) and three more by 1911. Private universities were authorised, Keio in 1890, Waseda in 1902. Subsequently this sector was to grow far larger than the prestigious Imperial Universities, largely to satisfy a growing need from industry and the professions and increasingly influenced by American models. Demand for graduate studies remained small and was limited mainly to those seeking an academic career. Most appointments to the leading universities were of graduates of Tokyo and Kyoto Universities who brought with them the Imperial universities commitment to research, which still pervades the university system in Japan.

England. By the middle of the 19th century, the universities in England had begun to recover from their disreputable levels of the 18th century.³⁾ The curriculum was expanded to include a widening range of specialised disciplines in the ancient universities, Oxford and Cambridge, and new institutions were being established. Research, previously largely the province of wealthy individuals or private academies, was increasingly accepted as a component of academic activity. But removal of historic constraints required government legislation: in 1854 to reform university governance; and in 1870 to remove religious tests on students and graduates and to free college academics from the requirement to resign on marriage.

Apart from such legislation, the autonomy and endowments of the ancient universities freed them from government intervention. As private institutions their primary task was to meet the educational needs of their relatively affluent students. Teaching, aimed at individual development remained a priority. Writing of Jowett, one of the leading figures in 19th century Oxford, it was said,

“He held that the only results of value are those which a man reaches for himself. Truth cannot be seen with the eye of another; the most that a teacher can do is to indicate the road which leads to the vision” (Davis, 1899).

The role of the university teacher, as one of clarifying ideas rather than instruction, conforms closely to the Humboldtian ideal. It reflects the importance still attached to classical studies, for which many students would have been well-prepared at school. It also conforms to the concept of study in depth — rather than breadth — that characterised teaching of disciplinary courses in English universities. The universities, including the new civic universities, presumed that general education had been completed in secondary schools, allowing universities to provide deep intellectual study of the specialised disciplines. By virtue of specialized study in the senior years of English secondary schools, undergraduate studies usually occupied only three years.

Their graduates would be employed as civil servants and in widening professional careers. Professional qualifications were controlled, through development of the traditional guilds, by professional institutions, not government. The universities equipped graduates with qualifications that exempted them from the professional examinations leaving a residual short apprenticeship to provide training and experience of professional practice.

By the end of the 19th century, research had become an important — but not a dominant — component of academic life. Entry to the emerging academic profession was increasingly dependent on research achievement in the sciences, though in the humanities, scholarship and teaching ability remained the criterion; for promotion, research had become essential. The departmental professorial structure facilitated development of research and the newer universities encouraged its growth in engineering and other new areas of specialism. Yet the ancient universities dominated provision of research training as well as the hierarchical structure. As late as 1950, well over half of doctorates were awarded by three of the then thirty universities (Ben-David,

1977). Little or no course work accompanied research training or existed in the universities: indeed the terms “graduate student” and “research student” remained synonymous until the 1960s.

United States. The first college, Harvard (1636), was founded as an English university college to advance learning and perpetuate it to posterity (Morrison, 1936). By the time of independence at the end of the 18th century, and when European universities were in decline, over twenty new colleges had been established. In the 19th century their numbers proliferated. Many were private foundations; state colleges and universities grew in number after the Morrill Act (1862), which provided limited endowment through land grant. All were subject to local control: the Federal government neither exercised nor sought significant influence, control or funding.

The initial academic model was that of the English universities with their classical curriculum and teaching in Latin. By the start of the 19th century, this was being replaced by a Scottish model — a more modern curriculum, flexibility, newer courses and instruction in English. Even so, the classical curriculum lingered until the latter half of the century, far longer in America than in Europe. Following the British models, the primary duty was teaching but by 1869 Elliot, the president of Harvard expected “the strongest and most devoted professors will contribute something to the patrimony of knowledge” (Shils, 1978).

The importance of research had been emphasised by graduates returning from study in German universities. Their influence, as professors of newer subjects in American colleges, was focussed by the decision of Gilman, the first president of the new Johns Hopkins University, to establish it as a graduate institution (1876) and as a graduate school, not just a research institution. This structure incorporated the essence of the German commitment to research together with the educational principle that had originally motivated creation of seminars and institutes. It was also able to provide for the “resident graduates” who had begun to accumulate in many colleges. In words reminiscent of Humboldt, Gilman identified “The university (as) a place for the advanced and special education of youth who have been prepared for its freedoms by the discipline of a lower school.” (Gilman, 1898, p.13). While Johns Hopkins as a purely graduate institution was economically unsuccessful, the concept was hugely influential. It was widely adopted. In Harvard by 1886 the graduate department of the School of Arts and Sciences was combined with the Science School to form its graduate school to which the Business School (1908), Education (1906) and Law (1911) were added subsequently (Veysey, 1965). Eliot, far-sightedly viewed it as strengthening the university:

“As long as our teachers regard their work as simply giving so many courses for undergraduates, we shall never have first class teaching here. If they have to teach graduate students as well as undergraduates, they will regard their subjects as infinite and keep up that constant investigation which is necessary for first class education.” (Morrison, 1936, p.336).

Establishment of graduate schools achieved two important innovations in American universities (Ben-David, 1977). In addition to institutionalising research and attracting leading scholars they provided the means of increasing the prestige of individual universities: excellent teaching may generate respect and

affection, excellent research generates fame. Second, it was an effective response to the increasing demand for advanced training. While research was essential for the emerging academic and research professions, the majority of graduates entering professional careers (Ushioji, 1971) had little interest in research but sought additional training. Without losing provision for general and liberal education at undergraduate level, this was achieved by entry to the master's programmes provided by the graduate schools.

The systems emerging in these three countries all drew on the 19th century German system, especially in regard to research. Although none could be aware of his writings, differences in national context created diversity in their emphases of the Humboldtian precepts. With no previous modern university system, Japan adopted the weaknesses as well as the strengths of the German system. Freedom for research and internal professorial autonomy were to be set against governmental control and minimal provision for *Bildung*. Conversely in England a lesser influence of the German system was to be seen. The independence of the ancient universities, emphasis on teaching and student care restricted their ability to expand research rapidly. In the U.S.A. alone graduate teaching was identified as a component of the German system to add to their university provision; moreover this was done in a form that did not distort the priority of undergraduate teaching yet satisfied both expansion of research and demand for professional education. With their shared heritage of the 18th century enlightenment, the Humboldtian precepts remained clearly evident in the U.S.A. and even more so in England (Brockliss, 1997). Notably it was the entrepreneurial presidents of American universities who were able to equip their universities better for the challenges of the 20th century (Ben-David, 1977).

So where is Humboldt now?

The 20th century transformed society. Education was re-invented, first as an aspirational objective, then as an economic imperative, no longer restricted to a social elite. Yet its structural frameworks survive: is it possible for its Humboldtian philosophy also to survive in the education industry of the 21st century?

Massification has been a phased revolution: first the schools, then the universities' undergraduates, finally their graduate schools. From the universities' perspective, the change was huge: in numbers, in function, in objectives. Participation increased from a few percent of the age cohort to more than half, and with it a wide spread of abilities. Transfer of basic education from the schools to the universities, "secondarization" (Clark, 1997), and extension of established knowledge combined to constrain the intellectual challenge of a university degree. Enrolment for many students became social conformity. For teachers and students, the frontiers of knowledge and research activity receded to the horizon's distant limits.

Even educational institutions evolve under environmental change. Three-quarters of all bachelor's degrees in the U.S.A. are now conferred on students whose institutions have no research frontier to view (Clark, 1997). Elsewhere in the world it is the universities themselves that have changed. Except, that is, the major research universities. With their competitive and selective enrolments, they continue to admit students

of high abilities, well-prepared for university studies — often by selective secondary schools. In England the leading research universities continue to teach courses recognisably similar to those of the immediately post-elite period; this is most clearly evident in mathematics and physical science courses where they alone now provide specialist undergraduate degree courses (Morgan, 2006).

Equally remarkable has been the growth of graduate schools. Of those students in the U.S.A. in 1900 receiving bachelor's degrees (27,410), 7% proceeded to master's and doctoral degrees; by 2006 the proportion had increased to 47%; in England the proportion is 33% but continues to increase rapidly and already in some leading universities, higher degrees are a majority of those conferred. The emerging status of the bachelor's degree as merely a qualification for entry to graduate school has overtaken Clark Kerr's claim that a quarter of all employees would require post-secondary education (Kerr, 1987). Whether this signifies a diminution in the market value of the bachelor's degree, growth of credentialism, perception of the value of advanced training, or all of these, the accompanying trends to professional doctorates and market-oriented reform of the PhD degree suggests that inflation is a significant factor.

Research is no longer confined to the university. Though its share of national R&D shrinks, now to 15%-20%, the university still provides some 40% of the research element (OECD, 2005; NSF, 2008). Commitment to research within universities continues to expand (Arimoto, 2009) and in terms of inputs and outputs research has grown faster than student numbers. Although the continuing search for truth — as in pure research — still predominates, the pressures to conform to utilitarian ends increase. The benefits from research, perceived by governments — which fund most of it — business, university institutions and individuals are largely financial and economic: patents are celebrated as widely as publications. More fundamentally, questions arise about how much research is needed, how long the costs of research can continue to grow faster than national resources, and how far cross-subsidy of research from tuition charges can proceed (Ben-David, 1977; Fallon, 1997; Hacker & Dreifus, 2010).

Together these images of the 21st century university suggest that only a faint glimmer of the Humboldtian model survives. Education as fulfilment of aspiration and the means to personal development is lost in numbers and utility. Teaching has become remedial and factual, remote from research. External intervention has been encouraged by institutions eager to embrace a plethora of non-academic roles and to endorse quasi-quantitative criteria of academic functions.

Yet the implicit comparisons may well be faulty. It is no longer possible to claim that “a university is a university.” Comparisons cannot be made system-wide and possibly not even institution-wide. Increasingly accepted is the view that only the graduate school can offer a fair comparison (Clark 1993; Ash, 1997). The ideal form of university teaching, as envisaged by Humboldt, is, according to McClelland (1980, p.129), “a form of communal brainstorming led by the professor with teacher and students inspiring and correcting each other in a search for discovery and understanding”, a picture familiar to contemporary research students. Moreover, the exclusion of all but a minority of academics and students conforms to Humboldt's expectation that few would be capable of subscribing to the ideals he identified. Even so, there remains an

unfulfilled element of the principle of unity of education. In accepting responsibility for post-secondary preparation, universities must provide inspiration as well as instruction. In Humboldt's words, "Knowledge should be so implanted in the mind of the pupil that understanding, knowledge and creativity excite it." (Humboldt, 1809). Achieving this would add an important qualitative criterion to the current quantitative assessment of undergraduate teaching.

Despite the revolutionary changes, as we now mark the bicentenary of the foundation of Berlin University, the academic community continues to attach profound relevance to the Humboldtian ideals. Whether the reforms at Berlin are characterised as myth is irrelevant. Humboldt is firmly enshrined in the pantheon of educational gods. From time to time he has been criticised as one unacquainted with the realities of academic life, yet he is identified with the fundamental principles of academic autonomy, freedom to study and teach, and the need for continuous search for truth in the university; and his perception of dealing with academics as like "managing a travelling company of actors" (Sweet, 1980, Vol II, p.60) has the ring of reality. Fortunately his less publicised shrewd assessment of professors was tactfully conveyed only to his wife (*ibid*), "Professors, of all people are the most unruly; their jealousies, their envy, their desire to run things, their prejudices are beyond belief." As for his view of academic work, perhaps that does bear the mark of the age of enlightenment,

"University teaching is moreover not such a strenuous affair that it should be regarded as a distraction from the calm needed for research and study." (Humboldt, 1809).

Notes

- 1) The Academy of Sciences was established in 1700 and taught science and humanities in the 18th century. It had facilities for study and research but by the start of the 19th century it was largely a prestigious institution for discussions of its distinguished members. Suggestions that it should provide the basis of the new university were opposed by Humboldt though its facilities were incorporated in the university.
- 2) The Carlsbad decrees introduced measures to discipline students and professors in schools and universities, to circumscribe the freedom of the press, and to establish a central investigative body (Ruegg, 2004).
- 3) At the end of the 18th century, the Scottish education system, historically separate, was markedly more advanced than that in England. The Scottish universities were then leaders among the few outstanding European universities. It is of interest to note that in Königsberg in 1809 Humboldt talked extensively with William Motherby, a Scottish friend of Kant. The lack of emphasis on research in the Scottish universities provides one reason why they did not progress in the 19th century in the seminal way that the Göttingen model did.

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フォン＝フンボルトの大学は今どこにあるか？

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ヴィルヘルム・フォン＝フンボルトの指導の下で創設されたベルリン大学は、現代大学にとってのモデルとして広く認知されている。それは、知識と教育の結合、真実の追求、外部支配からの学問の自由といった20世紀の大学像にも適合する18世紀啓蒙思想の基本原則がフンボルトの構想に組み入れられていたことが理由の一つである。とは言え、その影響が早々と広まったのは、当時優勢であったプロイセンでの立地や時宜を得た大学における研究の制度化といったベルリン大学の創設を取り巻く諸事情の方が要因としては大きい。その後の科学や学問の発展並びにその研究倫理により、ドイツ諸大学は、19世紀において国際的名声を勝ち得ることとなった。そして19世紀末には、その影響は日本や英国、米国にまで及んだ。

しかしながら、こうしたドイツ諸大学の発展は、大凡フンボルトに直接に起因するものではない。と言うのは、フンボルトの大学に関する著書が19世紀末まで発見されておらず、また、ドイツにおける彼の基本原理の影響力はそれほど大きくなかったからである。20世紀においても、大学院や研究大学でこれらの原理が存続している証拠が随所で見られる一方で、知的・社会的エリート供給のためのものであった高等教育の拡大が当該原理の根幹をも揺るがしたことは事実である。その一方で、大学教授職にとっては、外からの圧力、要求、統制の拡大にもかかわらず、これらの原理は従前通り、その主たる職務である教育と研究にとって不可欠なものとして受け止められている。

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