ABSTRACT
Driven by a shift in the political economy towards knowledge and information, and by the emergence of mass higher education, the historic central value of the liberal arts to the contemporary university is endangered. This essay presents an analysis of the current status of the university and asserts the value of the liberal arts to the covenant that sustains it. A history of the origin of the contemporary university, along with its dependence upon the liberal arts, is outlined. Finally, a definition of the liberal arts for the contemporary university is proposed, along with suggestions for models that could incorporate it. The argument concludes with a plea for anchoring university life in commitment to a modern understanding of the value of the liberal arts for faculty, students, and society.

Keywords: Liberal Arts, Liberal Education, General Education, Scholarly Inquiry, History of the University

Since ancient times educators have imagined organized societies comprised of well-educated citizens, suggesting that an educated citizenry will lead to a higher quality of life for its society. The relationship is likely far more complex, however, than implied by the simple logic of cause and effect. In our modern era, the rise of democracy has produced a steady increase in the proportion of citizens who are educated. This increase has broad consequences, both positive and negative, some of which dynamically impact the system of education itself. A higher proportion of educated citizens ultimately changes the nature of the political economy, and, in turn, a modernized political economy affects the conditions under which citizens are educated.

Growth in the density of educated persons does not readily produce predictable outcomes. More intellectual capital makes for a livelier, ever changing, and thus in some respects less stable society. Democracies have in recent centuries performed so well in enabling citizens to participate in higher education that the world has changed rapidly around us, often in ways that are confusing. Higher education, largely responsible for this new environment, may through these altered conditions surprisingly pose a threat to its own founding ideals. Unable to proceed reliably as we have in the past, and uncertain about strategies for the future, we in higher education must act boldly to secure our fundamental values, or we risk becoming classic victims of our own success. I argue here that the university can play a significant role in shaping a positive future for society by rigorously focusing on its own core tenets, adapting them to contemporary reality.

Some fundamental features of universities stem from the germ that led to the rise of these institutions many centuries ago. Central among these is devotion to what was known in medieval life as the liberal arts. Other characteristics of universities reflect patterns that have persisted from their inception, such as their international character. For example, current trends toward globalization are easier for modern universities to accommodate because modern universities began as transnational attractions. *In the beginning

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was the Road,” wrote the celebrated French medieval historian Joseph Bédier, describing the origins of intellectual centers in Europe. Scholars seeking knowledge had to travel, and they congregated in trade centers such as Bologna, Paris, and Salamanca, where they formed trade guilds that eventually took the Latin name universitas societatis magistrorum discipulorumque. The international students who studied within these guilds, which soon were simply called universities, often organized themselves by national identity into “nations.”

**ANALYTICAL FRAMEWORK**

My analysis of higher education has led me to the conclusion that there are four inevitable consequences of a highly educated citizenry that every advanced economy will face. The new knowledge-dependent political economy:

- ... causes an increasing differentiation of the role and mission of institutions within the higher education sector.
- ... transcends the borders of nation states, bringing about globalization. Globalization, in turn, forces a greater standardization of academic curricula and degrees, of the kind we see today in Europe with the introduction of Bachelor and Master degrees.
- ... forces higher education to struggle with increasing relative cost and thus produces new financing models.
- ... stresses the production of human capital, bringing into play new pressures for outcome accountability.

As important as each of these trends may be, the last is likely the most urgent for higher education today because the societal imperative for “accountability” can place a premium on the practical at the expense of the essential.

In this essay I focus on the importance of the ancient tradition embedded in the idea of the liberal arts. Before turning to that subject, let me first define three key concepts I have introduced: the new political economy, a highly educated citizenry, and the university itself.

**A New Political Economy**

What do we mean by the “new political economy?” In the United States and other advanced economies new wealth today is now being created more by information, management, services, and technology than by the mainstays of the preceding industrial revolution: agriculture, heavy industry, and manufacturing. This distinctive shift in resource production creates a knowledge-dependent economy, and it thrives upon stable governments, international legal conventions, transparency in the flow of information, and other features that are characteristic of the ideals of modern democracies. At the same time the new economy requires a critical mass of intellectual capital, and this requirement sustains pressure toward a high level of education for the general citizenry.

**A Highly Educated Citizenry**

What do we mean by a “highly educated citizenry” or by “mass higher education?” In the United States there has been since 1950, but especially since 1960, a stunning increase in participation in higher education among ordinary citizens. The phrase “mass higher education” is commonly used to refer to this phenomenon, but it is poorly understood, and is sometimes casually used to describe structural inadequacies such as overcrowded classrooms. I use the term to mean an increasing proportion of citizens enrolling in higher education and receiving credentials of completion. I am not referring to the size or number of universities, or student-faculty ratios.

The term mass higher education deserves a precise definition. There is a specific sociologically justifiable definition of mass higher education that is reasonably valid. For U.S. researchers, it is an easy and convenient measure. The Bureau of the Census was established in the U.S. constitution in the 18th century to determine at regular intervals the number of persons in the country. The kinds of question asked of people living in the United States to describe the composition of the populace has multiplied over the years. Beginning in 1890, every year the census has asked a sample of U.S. persons this question: “How many years of schooling have you completed?” The results have been collected in different ways, but one consistent measure has been of all adults over the age of 25 years. For this group, the average number of years of schooling has been increasing gradually each year since the question was first asked.

In 1910 for the first time, more than 50% of the respondents said they had completed 8.1 years of schooling. This was the first time the number had exceeded eight years. Since the first eight years of school in the U.S. is considered primary school, and anything more than that is considered secondary, 1910 can be marked as the year when the U.S. crossed the threshold to mass secondary education. A majority of adult persons living in the United States had some exposure to secondary school in that year.

In 1968 for the first time, the average number of years of schooling completed by U.S. persons aged 25 or older was 12. Since in the U.S. secondary school ends with 12 years, and anything beyond that is higher education, we can take 1968 as the year in which the U.S. crossed the threshold to mass higher education. A majority of adult persons living in the United States had some
exposure to higher education in that year. Strictly comparable figures do not exist for other countries, but clearly in the early 21st century most countries with advanced economies are rapidly approaching this milestone and several have crossed it.

The University
For purpose of clarity, it is valuable to distinguish the idea of higher education, which encompasses a broad range of institutions and purposes, from the idea of the university, which is a particular type with unique characteristics. Mass higher education is widely understood in the United States, in part because it has developed in that nation as a diverse highly differentiated collection of very different kinds of institutions, providing many alternatives to students at varying cost and accessibility. These features are not universally distributed as widely in other nations. My argument for recapturing the liberal arts as a core tenet of the modern university can be applied in some form to all sectors of postsecondary education. Nonetheless, in this essay I am focusing on the one institution that I personally know best and whose traditions have loomed large as a symbol of higher education -- the university.

We can arrive at a definition of the university by examining its origins. Trade guilds in medieval Europe taught their craft and made distinctions based upon certified expertise, a bachelor certification for apprentice and a master for journeyman. These ancient roots can still be seen in many countries, as in the United States, where after a period of training one can become a “bachelor plumber,” or with more study as an apprentice one can claim a certificate and title, for example, as a “master electrician.” This ancient trade system forms the elegant basis for Richard Wagner’s stirring comic opera, “Die Meistersinger von Nürnberg,” which describes how an adventurous knight in the 16th century seeks to become a master singer to win the hand of the maid he loves, thus succumbing to the guild of master singers. The final scene of the opera presents the society’s trade guilds triumphantly marching in for a celebration: cobblers, tailors, bakers, apprentices, journeymen, etc.

For those in the guild of scholars the trade was liberal arts and thus the certification “Bachelor of Arts” signified that a student had achieved a beginning level of understanding of scholarship ratified by the faculty. If one wanted, however, to join the guild as a teaching scholar, one had to be certified as “master of arts.” This qualification typically required several years of further study, presentation of a scholarly work, an oral examination by the master scholars, and presentation of an exemplary lecture. Usually, a guild could only award its license, certification, or degree upon permission by the local ruling political authority, whether a monarch, duke, or emergent nation state. Thus a “royal license” as Master of Arts granted permission to teach in the guild or, as teaching at the university level was called then, to read. The Latin license was called pro venia legendi, where legend is the gerund for the Latin verb to read, legere. As it evolved, the arts guild adopted the generic Latin name of universitas societatis magistrorum discipulorumque (general society of teachers and students), from which we derive the contemporary word University.

One further complication is that in medieval times there were three established professions: Law, Medicine, and Theology. For these professions to be recognized within the university trade guild of the liberal arts, special procedures were introduced. Typically, practitioners of these professions had already achieved at least licenses as Bachelor of Arts, and in some cases were masters. The scholars in the liberal arts trade then devised special examinations for the best practitioners of the three established professions. If the candidate passed, the license of jus ubique docendi was awarded. The new scholar could then be addressed as “doctor.” The key Latin words were derived from the verb docere, meaning to teach, docendi coming from the gerund and doctor from the past participle. For example, the title Doctor of Medicine meant that the scholar as a practitioner had been qualified to teach the discipline of medicine among the scholars in the arts guild. Thus, in many European universities, the right to grant the doctoral degree, authorized by the state, came to define a university.

This short historical sketch explains why in many European countries the right to award a doctoral degree is the defining characteristic of what is called a university. National traditions in this regard are no longer universal. Universities in the United Kingdom, for example, persisted with the Master of Arts as the highest degree awarded until late in the nineteenth century, and did not formally adopt the PhD degree until 1917.

In the United States, there are more than 5,000 institutions of higher education, but only 62 institutions in the United States and Canada have qualified for admission to the American Association of Universities, considered the elite group of private and public major comprehensive research universities. Many institutions in the United States call themselves “universities,” for example, San Francisco State University, but by law are prohibited from offering doctoral degrees except in a few applied professional fields (audiology and the doctorate in education) and selectively approved instances involving partnership with a doctoral-granting university.

In this essay, therefore, to be clear, I define the term university to mean an institution that awards a significant number of doctoral degrees annually across a significant number of disciplines, while also offering traditional bachelor and master degrees. These institutions are usually called research universities.
THE LIBERAL ARTS

Now we are ready to discuss the study of the liberal arts, which gave us the traditions we celebrate today when we use the English phrase “liberal education,” and the German words “Bildung” and “Wissenschaft.” My thesis is that liberal education was at the center of the enlightenment reforms that characterized the formation of the modern university, especially in the founding of that icon of enlightened modernity, the University of Berlin, in 1810. Today, however, as we cross the threshold of mass higher education into a knowledge-based society, we are in danger of losing liberal education as a fundamental element of higher education. At the same time, our evolving society needs the virtues associated with Bildung and Wissenschaft perhaps more than ever before. The solution I suggest for meeting this challenge is to design and implement a future-oriented version of the ancient concept of the liberal arts consistent with the contemporary university. Let’s begin by looking at the origin and meaning of this concept.

Origins of the Liberal Arts

Even with the finest scholarship we can’t determine with satisfying specifics when or how the general notion of liberal education began. Nonetheless, we do know that the organization of knowledge in the Western world developed in the past 3,000 years and originated primarily in ancient Egypt, the Middle East, and Greece, influenced by neighboring civilizations. With greater certainty we can assert that the particular structure of the liberal arts, as such, emerged in Europe, and not until the middle ages.

There were potent analytical precursors of liberal education, even at the time of Periclean Athens, identified in the phrase “Enkuklios Paideia.” This Greek phrase can be translated many ways. Paideia is straightforward. It means education, or rearing or upbringing. Enkuklios, however, is a word with many meanings, depending on the context. It can mean such ideas as circular, cyclical, common, general, or regular. The usual translation of Enkuklios Paideia is general education, but in my view a better translation arising from the treatments of it by Isocrates and Aristotle would be complete education, i.e., education that brings together many different facts and principles and integrates them into a coherent philosophy.

The somewhat sturdier Roman construct of the Latin “Artes Liberales” arose four centuries later, toward the era of the emperor Augustus. The Roman orator Cicero used the phrase Artes Liberales, elevating it from Greek sources and adding features of Roman education. The concept was praised by such stoic philosophers as Seneca and appeared to emphasize ways of thinking. Even then, however, there was no accepted standard course of study.

The Magic Number Seven

It is not until the fifth century C.E. that we first get a textual reference to seven specific liberal arts. They appear in a lengthy and lively text by Martianus Capella, where these liberal arts serve as handmaidens to an allegorical marriage between utilitarianism, represented in the text by Mercury, and broad humane learning, represented by Philology. Cappela apparently retrieved these seven liberal arts from older texts that are long lost. His book was so enthusiastically received that no learned person could ignore it, and its influence persisted for many centuries thereafter. Saint Augustine was a contemporary of Capella, and a fellow North African, who wrote about the intellectual value of Capella’s seven liberal arts, thus helping to establish them as the cornerstone of scholarship.

In the sixth century Theodoric the Great, reigning king of the Gothic empire, located in what is now the North of Italy, included in his administrative court a gifted and passionate philosopher named Boethius, who was a Roman Senator. At a time of political instability, Boethius was accused of treason. Thoedoric ordered him imprisoned, and ultimately had him executed. While in prison Boethius wrote extensively about the consolations of philosophy and continued a brilliant reflection he had begun earlier on four of the seven liberal arts, calling them the four-fold way, or quadri
divum, literally the place where four roads meet. These four were the most mathematical of the liberal arts: arithmetic, geometry, astronomy, and music.

It wasn’t until three centuries later, in the early ninth century, when Charlemagne brought in the English priest Alcuin to strengthen schooling in the Holy Roman Empire, that the remaining three liberal arts began to be called the three-fold way or trivium. These three were the liberal arts that were most related to language: grammar, rhetoric, and logic. With the passage of time the trivium began to be called simply “arts,” and the quadrivium “sciences,” which led to the more general Latin phrase “ars et scientia,” which we recognize in the English-speaking world as the modern construct of “arts and sciences.” Because all students in the late middle ages began their learning with the trivium, advanced students would sometimes mock their colleagues for giving simple answers by claiming they knew only learning from the trivium. That is the etymological origin of the English everyday word “trivial.”

Aristotle and the Moors

The standardization of the seven liberal arts into the trivium and the quadrivium or the arts and sciences took place in the middle ages not long after the reign of Charlemagne and occurred at more or less the same time as the beginnings of what would become universities. By the time we get to the thirteenth century we are approaching the boundary between what we might call the late
Middle Ages or the early Renaissance. Before this time, most of the works of Aristotle were unknown to scholars in Europe because the texts had been presumed lost in antiquity. But most of Aristotle's copious works had indeed been preserved and translated into Arabic by Islamic scholars, who brought these texts to Europe via the Moorish invasion of Spain. Thus, at the beginning of the thirteenth century, about the year 1200, these works, gradually but cumulatively translated into Latin, produced a flood of essays by Aristotle, causing a profound and disorienting impact on European scholarly thinking.

Aquinas and a Multiplicity of Specializations
St. Thomas Aquinas (1225-1274) was deeply inspired by Aristotle's comprehensive understanding of the world. St. Thomas parsed and analyzed the newly discovered essays, allowing them to join his own thinking, thus producing a new logical philosophy and theology. The radical influence of Aristotle created such profound new knowledge that St. Thomas could easily declare that confining scholarship to just seven liberal arts was obsolete. The concept of liberal arts comprising the bedrock of higher education continued beyond the time of St. Thomas, but the arbitrary number of seven no longer put a boundary around it. Instead, liberal arts expanded to include all of what scholars agreed would constitute a common understanding of the world known to human intelligence. In many European countries, the concept of the liberal arts was subsumed by the Latin word philosophia, or, as the scholars associated with the liberal arts were called in German, die philosophische Fakultät. In the English-speaking world, these scholars continued to be called the faculty of liberal arts, or the arts and sciences.

Wilhelm von Humboldt
You can see by this transition from a guild of scholars associated with seven specific liberal arts to the idea of die philosophische Fakultät or faculty of arts and sciences that from today's point of view the liberal arts might be considered a collection of disciplines. At the time that Wilhelm von Humboldt accepted the challenge from Prussian King Friedrich Wilhelm III in February of 1809 to design a university in Berlin, however, the concept of an academic discipline in today's sense of the word did not exist. The historic European university of the eighteenth century contained only four faculties. The general faculty was that of Philosophy, which provided instruction in what had been known historically as the liberal arts. The remaining faculties were for the three professions that had been recognized since the Middle Ages: Medicine, Theology, and Law.

In the transformative founding of the University of Berlin in 1810, Wilhelm von Humboldt created the modern university as it is widely understood today. Indeed, the University of Berlin, and the reform universities in Germany that subsequently adopted its features and rationale became in the latter half of the 19th century the seminal inspiration for the development of the U.S. research university. In Humboldt's day all scholars first had to study in philosophy before continuing to professional study and for this reason the faculty of philosophy had come to be called "the lower faculty." Furthermore, since the scholars in the faculty of philosophy were the basis of the university, they had been assumed, by definition, as qualified to teach. There was no recognized formal procedure for them to qualify for faculty status, unlike their colleagues in the professional faculties. Most scholars in the faculty of philosophy actually had passed examinations, generally published widely, and many carried the title of Doctor of Philosophy. Nonetheless, the means by which they became licensed teaching scholars were perceived as neither coherent nor thorough.

Humboldt asserted that there should be nothing "lower" about philosophy, and, further, that scholars in philosophy should qualify as teachers in the university through a rigorous procedure. He proposed a new qualifying examination for university teachers, the pro facultate docendi, to be administered to candidates in philosophy. Instead of adopting this new label and examination that went with it, the faculty at the University of Berlin decided to strengthen the practices that had led in some places to qualification as Doctor of Philosophy. These examinations were administered in the special field of philosophy in which a candidate claimed to be an authority. These fields, such as history, literature, linguistics, chemistry, physics, or mathematics, are what are called disciplines today. With the adoption of standardized rigorous procedures for award of the Ph.D. degree, and introduction of the requirement of holding a Ph.D. degree as a minimum for appointment, the faculty of philosophy was thus placed on the same level as that of the professional faculties. There was no longer a lower or higher faculty.

Wilhelm von Humboldt was himself a great linguistic scholar, who admired Aristotle, and promoted principles consistent with Aristotle's conception of the world. For Humboldt, as for Aristotle, an important function of advanced learning was the formation of character that promoted in students a sense of responsible citizenship. Of course, Humboldt understood the need of any professor at the university to pursue specialized scholarship, but only in the context of a deep commitment to Wissenschaft and to Bildung. These two words, which have powerful meaning in German, have no exact English translation. Bildung conveys a sense of erudition, and cultivation of learned civilized character. Wissenschaft refers to the world of science and scholarship, including both process and product. To get to a commitment to Bildung and Wissenschaft, Humboldt assumed that one function of the University would in fact be the strengthening of a student's liberal education (allgemeine Bildung). Thus, he wrote to the King on July 24, 1809, laying out his proposal for a University in Berlin, that a university, "...proceeding from the proper perspective of a liberal education, can neither rule out any academic subject nor, from a more elevated point of view (since universities clearly operate only at the highest level), begin to limit itself in the end to purely practical exercises."
In a later essay, he was very clear about the University’s responsibility for Wissenschaft. He wrote, “This is because Wissenschaft alone, which comes from and can be planted in the depths of spirit, also transforms character; and for the state, just as for humanity, facts and discourse matter less than character and behavior.” In writing about Bildung to the King in December 1809, he stressed, “Therefore, the primary objective for the whole nation...must depend on the understanding of clear and well-defined concepts, and to plant those concepts so deeply that they are evident in character and behavior.”

Ideas about Bildung and Wissenschaft were critical to Humboldt’s understanding about the meaning of a university. They also were deeply in debt to the spirit of the liberal arts that had been the heart of universities in Europe from their very beginning. To see this relationship more clearly, we need to examine the spirit of the liberal arts.

**A FRAMEWORK FOR PROMOTING THE LIBERAL ARTS**

From my own perspective, the legacy of the liberal arts for today’s world is made up of three broad concepts that aim to build an educated citizen.

- **General Education** is the acquisition and possession of a repertoire of reliable information about a variety of important facts, systems, events, people, and phenomena.
- **Liberal Education** is the acquisition and possession of the means of determining the value, purpose, and meaning of information. It is this facility that permits one to know, for example, the beautiful from the ordinary, the just from the unjust, and better from worse. Liberal education also teaches students how to make connections among the elements within general education, and to discern patterns that convey understanding. Liberal education is dependent upon general education and thus cannot exist without it.
- **Scholarly Inquiry** is the acquisition and possession of modes of inquiry by which students acquire general and liberal education. They include, for example, the scientific method, bibliographic techniques, rhetoric and composition, critical theory, and dialectical, inductive, and deductive reasoning.

Not everyone in academic life would define general education, liberal education, or scholarly inquiry in the same way, and some might think of them quite differently than I’ve described them here. Nonetheless, a university education seeks to provide students with some level of competence at least in knowledge (general education), values (liberal education), and skills (scholarly inquiry). These three ideas are not strictly separable. Although some instruction may emphasize, say, knowledge, over values and skills, in fact all three end up being taught simultaneously.

*From the 19th Century to the 21st*

As we have seen, Wilhelm von Humboldt never lost sight of the essential tradition of the liberal arts, in the form of Bildung und Wissenschaft, to be at the center of a university education. This objective was possible, at least in the early nineteenth Century, when only a small elite group of students was expected to attend the University, and when, to use Humboldt’s words, it was the responsibility of the state “…to organize its schools so that they work hand in hand with the institutions of higher learning.” The enormous advances in research and knowledge that occurred in the following 200 years, plus the systematic advance of social democracy and the broadening franchise for education, have since then posed increasing challenges to maintaining Bildung as a priority for the university.

There is no precedent for how a highly educated society should arrange its educational institutions or pursue a broad educational purpose. In this new dynamic environment, the liberal arts, historically central to the purposes of the university, are increasingly becoming peripheral. Our emergence into a knowledge-based economy has brought us many benefits, including, for example, personal computers, the Internet, and extraordinary improvements in medicine.

At the same time, increases in knowledge and education have brought about malicious computer viruses, sophisticated schemes for financial fraud, and medical and biological possibilities that conflict with our ethical and moral understanding of what it means to be human. What is needed is a means to temper the rapid creation of new knowledge and wealth with ethical intelligence, an acceptance of responsibility for a healthy social order, and a commitment to good citizenship in a democracy. This is exactly the domain of the liberal arts. In short, what is needed today for the university of the future is a renewed focus for all students on Bildung.

We cannot, as was appropriate in Humboldt’s era, allow Bildung to emerge through unencumbered curricular choices by students informed by a wise and collegial faculty. Modern institutions are too many, large, diverse and complex. We also can no longer assume, as Humboldt did, that preparation for university study at the secondary school level, the high school or Gymnasium, would provide all or even much of the necessary elements of a liberal education. University scholars have an intrinsic responsibility for
protection of the liberal arts and must assert their historic professional duty to ensure that today’s students are prepared to assume roles as citizens in a modern political economy.

Promoting a Liberal Arts Education at the University
What is required at a university is coordinated action by the faculty, in their role as keepers of the university ideal. The content and structure of a liberal arts curriculum should be the responsibility of the faculty at any given university, developed and approved through its normal academic government. The faculty that commits to it must be the faculty that designs it and maintains it. There is no single solution to this challenge. A liberal arts element in a university course of study should focus on synthesis, perspective, and coherence in a way that demonstrates the motivating power of the liberal arts. Its purpose should be to enable students to seek patterns within their course of study, to apply values to these ideas, to point their learning toward their postgraduate lives as citizens, and thus to find the definitive meaning of their university education. This kind of liberal education would not only benefit students but would surely also enrich the faculty, anchoring them in a noble tradition that sustains the university.

Worldwide, the structure of the first university degree varies. Given their inheritance from the late renaissance institutions of Oxford and Cambridge, most U.S. universities already espouse some form of a requirement for a common core, often loosely called “general education.” It is generally a program of widely distributed study intended to promote a form of Bildung as well as to encourage exploration. What I am calling for is a probing examination of these curricula, with a focus on what the faculty deems essential for successful navigation of contemporary life. University curricula in the US are mostly designed for completion within four years and students typically do not begin serious specialization until about the third year. In Europe, and most elsewhere, Bildung is seen as occurring at the secondary level, and university students enter field specific degree programs without any additional forms of liberal arts education. Often these programs can be fully completed within three years. Students are already specializing. The thrust of my argument is that this model is tenuous. An explicit commitment to virtues of the liberal arts is central to the covenant of teaching in a university.

Some European universities have begun to experiment with options for students to pursue a specialization in liberal arts rather than in a specific discipline. In many cases, this option has become surprisingly popular, even drawing students specializing in traditional disciplines to choose among its offerings as free electives. Although a specific “liberal arts specialization” may be valuable, I am not arguing for weakening disciplinary specialization.

Instead, I argue that university faculty have a responsibility to ensure that students pursuing a disciplinary specialization also include some element that directly strengthens their Bildung and links it to their disciplinary study. This liberal education curriculum should be required of all students but need not consume more than about 20 percent of any student’s entire pursuit of a degree. The curriculum might be designed under the explicit assumption that students have acquired a basic repertoire of general knowledge and skills. Such a structured curriculum might be concentrated in one semester, distributed over several semesters or from entry to conclusion of study. This “cultivated curriculum” need not be the same at all universities, but wherever it is offered, it should be a coherent whole, requiring deep reflection on the part of the student. An option that defers to the expertise within specialized disciplines is also possible, in which each disciplinary faculty recommends a particular collection of courses outside of its own discipline for all of its students and then offers an integrating seminar for its students towards the end of their course of study.

Our intense pursuit of new knowledge within universities has necessarily required many imaginative minds to specialize. Of course, specialization brings technical vocabularies and modes of thinking that are not readily accessible to specialists in other fields. It is impossible for today’s scholars to avoid this problem, which is perhaps most vividly demonstrated in the poignant estrangement over the past two hundred years of the humanities from the sciences. We cannot turn our backs on specialization and technical vocabularies. We also need, however, to develop the capacity to see big pictures in ways that temper criticism with compassion and strengthen the integrating power of our comprehension.

No matter how we organize our own universities we need to keep in mind that all academic disciplines of the arts and sciences share a common heritage derived originally from the liberal arts. We are not speaking here of one tradition versus some other tradition, but of the basic unity of human knowledge as exemplified by Humboldt’s conception of die philosophische Fakultät, which made no distinctions among scholars by academic field. In other words, the academic compartmentalization of today’s university must be balanced by an explicit university-wide commitment to understanding the value of the liberal arts.

CONCLUSION
The liberal arts are the seeds from which the luxuriant garden that we call today the university has grown. They also supply the nutrients that keep the garden in flower. In today’s world, impressed by the scope and richness of this garden, dazzled by the beauty of particular blossoms, we stand at risk of forgetting how important are the seeds and the nutrients. We need to stand
back, perceive and protect the essence of the university, that spirit on which it depends, and which holds it together. What the university needs today, above all, is a renewed commitment to *Bildung* and to *Wissenschaft*, in the sense that Wilhelm von Humboldt thought about those concepts. As Humboldt reminded us in his essay on the university this will be both difficult and easy. Here is his advice:

Difficult: “In organizing the institutions of higher learning, everything depends upon holding to the principle of considering *Wissenschaft* as something not yet found, never completely to be discovered, and searching relentlessly for it as such.”

Easy: “If ultimately in institutions of higher learning the principle of seeking *Wissenschaft* as such is dominant, then it is not necessary to worry individually about anything else.”

**ENDNOTES**


9 Humboldt, W. *op. cit. (Anstalten).* Über die innere und äußere Organisation der höheren wissenschaftlichen Anstalten in Berlin, p. 258.

10 Humboldt, W. *op. cit. (Bericht).* Bericht der Sektion des Kultus und Unterrichts an den König, Dezember 1809, p. 212.

