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A Vision of Scholarship

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"A Vision of Scholarship" is based on a long and continuous study of higher education carried out by the Carnegie Foundation for the Advancement of Teaching. In 1987 the Foundation published College - The Undergraduate Experience in America - a study that affirmed the richness and diversity of our system of higher education. It stated that our system was "the envy of the world." But the study also found that the undergraduate college was a "troubled institution." College raised eight concerns, two of which have emerged for further study and analysis.

The first of these issues was the quality of campus life. Further study resulted in a publication by the Carnegie Foundation called Campus Life - In Search of Community. The second issue dealt with the priorities of the faculty. The Foundation and its President, Dr. Ernest L. Boyer, listened, studied, surveyed faculty, surveyed the literature, made campus visits, convened seminars, brought in Senior Fellows. From these data and drawing on his long experience in higher education, Dr. Boyer concluded that the issue was not the faculty. These are a group of dedicated professionals carrying out their responsibilities as best they can. The issue confounding faculty priorities relates to the definition of scholarship. From his awareness and analysis, Dr. Boyer formulated and now proposes a new definition of scholarship.

Scholarship is now defined as equivalent to research, in fact, research followed by publication in refereed journals in specialized disciplines - this is the only yardstick used to measure scholarly productivity. While there is some variation from college to college, this narrow definition for scholarship applies to most faculty because it applies to nearly all disciplines.

Dr. Boyer and his colleagues found many faculty stifled, confined and contorted by the narrow definition. Many of them are working on compressed time schedules. Many younger faculty state that they are "demoralized." In his book Scholarship Reconsidered - Priorities of the Professoriate, Dr. Boyer goes to the heart of the matter, urging that the meaning of scholarship be debated and redefined. He proposes an expanded definition of acceptable scholarship including "the scholarship of discovery, the scholarship

of integration, the scholarship of application and the scholarship of teaching." These four types of intellectual activity must be acceptable, be recognized, be rewarded, and be respected throughout the academy. These four forms of intellectual activity are to be announced as equal, evaluated as equal and rewarded as equal, and institutions must be explicit and open about this definition of scholarship. These definitions are based on the assumption that, first, every faculty member should be intellectually lively; second, every faculty member should, therefore, be engaged in some form of scholarship and that it is the responsibility of the faculty member to prove the intellectual rigor of the scholarly work undertaken.

In his book, Boyer has clarified his definitions as follows:

"Since colonial times, the American professoriate has responded to mandates both from within the academy and beyond. First came teaching, then service, and finally, the challenge of research. In more recent years, faculty have been asked to blend these three traditions, but despite this idealized expectation, a wide gap now exists between the myth and the reality of academic life. Almost all colleges pay lip service to the trilogy of teaching, research, and service, but when it comes to making judgments about professional performance, the three rarely are assigned equal merit.

"Today, when we speak of being "scholarly," it usually means having academic rank in a college or university and being engaged in research and publication. But we should remind ourselves just how recently the word "research" actually entered the vocabulary of higher education. The term was first used in England in the 1870s by reformers who wished to make Cambridge and Oxford "not only a place of teaching, but a place of learning," and it was later introduced to American higher education in 1906 by Daniel Coit Gilman. But scholarship in earlier times referred to a variety of creative work carried on in a variety of places, and its integrity was measured by the ability to think, communicate, and learn.

"What we now have is a more restricted view of

scholarship, one that limits it to a hierarchy of functions. Basic research has come to be viewed as the first and most essential form of scholarly activity, with other functions flowing from it. Scholars are academics who conduct research, publish, and then perhaps convey their knowledge to students or apply what they have learned. The latter functions grow out of scholarship, they are not to be considered a part of it. But knowledge is not necessarily developed in such a linear manner. The arrow of causality can, and frequently does, point in both directions. Theory surely leads to practice. But practice also leads to theory. And teaching, at its best, shapes both research and practice. Viewed from this perspective, a more comprehensive, more dynamic understanding of scholarship can be considered, one in which the rigid categories of teaching, research, and service are broadened and more flexibly defined.

"There is a readiness, we believe, to rethink what it means to be a scholar. Richard I. Miller, professor of higher education at Ohio University, surveyed academic vice presidents and deans at more than eight hundred colleges and universities to get their opinion about faculty functions. These administrators were asked if they thought it would be a good idea to view scholarship as more than research. The responses were overwhelmingly supportive of this proposition. The need to reconsider scholarship surely goes beyond opinion polls, but suggest that administrative leaders are rethinking the definitions of academic life. Moreover, faculty, themselves, appear to be increasingly dissatisfied with conflicting priorities on the campus.

"How then should we proceed? Is it possible to define the work of faculty in ways that reflect more realistically the full range of academic and civic mandates? We believe the time has come to move beyond the tired old "teaching versus research" debate and give the familiar and honorable term "scholarship" a broader, more capacious meaning, one that brings legitimacy to the full scope of academic work. Surely, scholarship means engaging in original research. But the work of the scholar also means stepping back from one's investigation, looking for connections, building bridges between theory and practice, and communicating one's knowledge effectively to students. Specifically, we conclude that the work of the professoriate might be thought of as having four separate, yet overlapping, functions. These are: the scholarship of discovery; the scholarship of integration; the scholarship of application; and the scholarship of teaching.

The Scholarship of Discovery

"The first and most familiar element in our model, the scholarship of discovery, comes closest to what is meant when academics speak of "research." No tenets in the academy are held in higher regard than the commitment to knowledge for its own sake, to freedom of inquiry and to following, in a disciplined fashion, an investigation wher-

ever it may lead. Research is central to the work of higher learning, but our study here, which inquires into the meaning of scholarship, is rooted in the conviction that disciplined, investigative efforts within the academy should be strengthened, not diminished.

"The scholarship of discovery, at its best, contributes not only to the stock of human knowledge but also to the intellectual climate of a college or university. Not just the outcomes, but the process, and especially the passion, give meaning to the effort. The advancement of knowledge can generate an almost palpable excitement in the life of an educational institution. As William Bowen, former president of Princeton University, said, scholarly research "reflects our pressing, irrepressible need as human beings to confront the unknown and to seek understanding for its own sake. It tied inextricably to the freedom to think freshly, to see proposition of every kind in ever-changing light. And it celebrates the special exhilaration that comes from a new idea."

"The list of distinguished researchers who have added luster to the nation's intellectual life would surely include heroic figures of earlier days—Yale chemist Benjamin Silliman; Harvard naturalist Louis Agassiz; astronomer William Cranch Bond; and Columbia anthropologist Franz Boas. It would also include giants of our time—James Watson, who helped unlock the genetic code; political philosopher Hannah Arendt; anthropologist Ruth Benedict; historian John Hope Franklin; geneticist Barbara McClintock; and Noam Chomsky, who transformed the field of linguistics; among others.

"When the research records of higher learning are compared, the United States is the pacesetter. If we take as our measure of accomplishment the number of Nobel Prizes awarded since 1945, United States scientists received 56 percent of the awards in physics, 42 percent in chemistry, and 60 percent in medicine. Prior to the outbreak of the Second World War, American scientists, including those who fled Hitler's Europe, had received only 18 of the 1329 prizes in these three areas. With regard to physics, for example, a recent report by the National Research Council states: "Before World War II, physics was essentially a European activity, but by the war's end, the center of physics had moved to the United States." The Council goes on to review the advances in fields ranging from elementary particle physics to cosmology.

"The research contribution of universities is particularly evident in medicine. Investigations in the late nineteenth century on bacterial and viruses paid off in the 1930s with the development of immunizations for diphtheria, tetanus, lobar pneumonia, and other bacterial infections. On the basis of painstaking research, a taxonomy of infectious diseases has emerged, making possible streptomycin and other antibiotics. In commenting on these break-

throughs, physician and medical writer Lewis Thomas observes: "It was basic science of a very high order, storing up a great mass of interesting knowledge for its own sake, creating, so to speak, a bank of information, ready for drawing on when the time for intelligent use arrived."

"Thus, the probing mind of the researcher is an incalculably vital asset to the academy and the world. Scholarly investigation, in all the disciplines, is at the very heart of academic life, and the pursuit of knowledge must be assiduously cultivated and defended. The intellectual excitement fueled by this quest enlivens faculty and invigorates higher learning institutions, and in our complicated, vulnerable world., the discovery of new knowledge is absolutely crucial.

The Scholarship of Integration

"In proposing the scholarship of integration, we underscore the need for scholars who give meaning to isolated facts, putting them in perspective. By integration, we mean making connections across the disciplines, placing the specialties in larger context, illuminating data in a revealing way, often educating nonspecialists, too. In calling for a scholarship of integration, we do not suggest returning to the "gentleman scholar" of an earlier time, nor do we have in mind the dilettante. Rather, what we mean is serious, disciplined work that seeks to interpret, draw together, and bring new insight to bear on original research.

"This more integrated view of knowledge was expressed eloquently by Mark Van Doren nearly thirty years ago when he wrote: "The connectedness of things is what the educator contemplates to the limit of his capacity. No human capacity is great enough to permit a vision of the world as simple, but if the educator does not aim at the vision no one else will, and the consequences are dire when no one does." It is through "connectedness" that research ultimately is made authentic.

"The scholarship of integration is, of course, closely related to discovery. It involves, first, doing research at the boundaries where fields converge, and it reveals itself in what philosopher-physicist Michael Polanyi calls "overlapping [academic] neighborhoods." Such work is in fact, increasingly important as traditional disciplinary categories prove confining, forcing new topologies of knowledge. Many of today's professors understand this. When we asked faculty to respond to the statement, "Multidisciplinary work is soft and should not be considered scholarship," only 8 percent agreed, 17 percent were neutral, while a striking 75 percent disagreed. This pattern of opinion, with only slight variation, was true for professors in all disciplines and across all types of institutions.

"The scholarship of integration also means interpretation, fitting one's own research - or the research of others - into larger intellectual patterns. Such efforts are increasingly essential since specialization, without broader perspective, risks pedantry. The distinction we are drawing here between "discover" and "integration" can be best understood, perhaps, by the questions posed. Those engaged in discovery ask, "What is to be known, what is yet to be found?" Those engaged in integration ask, "What do the findings mean? Is it possible to interpret what's been discovered in ways that provide a larger, more comprehensive understanding?" Questions such as these call for the power of critical analysis and interpretation. They have a legitimacy of their own and if carefully pursued can lead the scholar from information to knowledge and even, perhaps, to wisdom.

"Today, more than at any time in recent memory, researchers feel the need to move beyond traditional disciplinary boundaries, communicate with colleagues in other fields, and discover patterns that connect. Anthropologist Clifford Geertz, of the Institute for Advanced Study in Princeton, has gone so far as to describe these shifts as a fundamental "refiguration,...a phenomenon general enough and distinctive enough to suggest that what we are seeing is not just another redrawing of the cultural map - the moving of a few disputed borders, the marking of some more picturesque mountain lakes - but an alteration of the principles of mapping. Something is happening," Geertz says, "to the way we think about the way we think."

"This is reflected, he observes, in:

. . . philosophical inquiries looking like literary criticism (think of Stanley Cavell on Beckett or Thoreau, Sartre on Flaubert), scientific discussions looking like belles lettres morceaux (Lewis Thomas, Loren Eisley), baroque fantasies presented as deadpan empirical observations (Borges, Barthelme), histories that consist of equations and tables or law court testimony (Fogel and Engerman, Le Roi Ladurie), documentaries that read like true confessions (Mailer), parables posing as ethnographies (Castañeda), theoretical treatises set out as travelogues (Lèvi-Strauss), ideological arguments cast as historiographical inquiries (Edward Said), epistemological studies constructed like political tracts (Paul Feyerabend), methodological polemics got up as personal memoirs. (James Watson)

"These examples illustrate a variety of scholarly trends - interdisciplinary, interpretive, integrative. But we present them here as evidence that an intellectual sea change may be occurring, one that is perhaps as momentous as the nineteenth-century shift in the hierarchy of knowledge, when philosophy gave way more firmly to science. Today, interdisciplinary and integrative studies, long on the edges of academic life, are moving toward the center, responding both to new intellectual questions and to pressing human

problems. As the boundaries of human knowledge are being dramatically reshaped, the academy surely must give increased attention to the scholarship of integration.

The Scholarship of Application

"The first two kinds of scholarship - discovery and integration of knowledge - reflect the investigative and synthesizing traditions of academic life. The third element, the application of knowledge, moves toward engagement as the scholar asks, "How can knowledge be responsibly applied to consequential problems? How can it be helpful to individuals as well as institutions?" And further, "Can social problems themselves define an agenda for scholarly investigation?"

"Reflecting the Zeitgeist of the nineteenth and early twentieth centuries, not only the land-grant colleges, but also institutions such as Rensselaer Polytechnic Institute and the University of Chicago were founded on the principle that higher education must serve the interests of the larger community. In 1906, an editor celebrating the leadership of William Rainey Harper at the new University of Chicago defined what he believed to be the essential character of the American scholar. Scholarship, he observed, was regarded by the British as "a means and measure of self-development," by the Germans as "an end in itself," but by Americans as "equipment for service." Self-serving though it may have been, this analysis had more than a grain of truth.

"Given this tradition, one is struck by the gap between values in the academy and the needs of the larger world. Service is routinely praised, but accorded little attention - even in programs where it is most appropriate. Christopher Jencks and David Riesman, for example, have pointed out that when free-standing professional schools affiliated with universities, they lessened their commitment to applied work even though the original purpose of such schools was to connect theory and practice. Professional schools, they concluded, have oddly enough fostered "a more academic and less practical view of what their students need to know."

"Colleges and universities have recently rejected service as serious scholarship, partly because its meaning is so vague and often disconnected from serious intellectual work. As used today, service in the academy covers an almost endless number of campus activities - sitting on committees, advising student clubs, or performing departmental chores. The definition blurs still more as activities beyond the campus are included - participation in town councils, youth clubs, and the like. It is not unusual for almost any worthy project to be dumped into the amorphous category called "service."

"Clearly, a sharp distinction must be drawn between citizenship activities and projects that relate to schol-

arship itself. To be sure, there are meritorious social and civic functions to be performed, and faculty should be appropriately recognized for such work. But all too frequently, service means not doing scholarship but doing good. To be considered scholarship, service activities must be tied directly to one's special field of knowledge and relate to, and flow directly out of, this professional activity. Such service is serious, demanding work, requiring the rigor - and the accountability - traditionally associated with research activities.

"The scholarship of application, as we define it here, is not a one-way street. Indeed, the term itself may be misleading if it suggests that knowledge is first "discovered" and then "applied." The process we have in mind is far more dynamic. New intellectual understandings can arise out of the very act of application - whether in medical diagnosis, serving clients in psychotherapy, shaping public policy, creating an architectural design, or working with the public schools. In activities such as these, theory and practice vitally interact, and one renews the other.

"Such a view of scholarly service - one that both applies and contributes to human knowledge - is particularly needed in a world in which huge, almost intractable problems call for the skills and insights only the academy can provide. As Oscar Handlin observed, our troubled planet "can no longer afford the luxury of pursuits confined to an ivory tower....[S]cholarship has to prove its worth not on its own terms but by service to the nation and the world."

The Scholarship of Teaching

"Finally, we come to the scholarship of teaching. The work of the professor becomes consequential only as it is understood by others. Yet, today, teaching is often viewed as a routine function, tacked on, something almost anyone can do. When defined as scholarship, however, teaching both educates and entices future scholars. Indeed, as Aristotle said, "Teaching is the highest form of understanding."

"As a scholarly enterprise, teaching begins with what the teacher knows. Those who teach must, above all, be well informed, and steeped in the knowledge of their fields. Teaching can be well regarded only as professors are widely read and intellectually engaged. One reason legislators, trustees, and the general public often fail to understand why ten or twelve hours in the classroom each week can be a heavy load is their lack of awareness of the hard work and the serious study that undergirds good teaching.

"Teaching is also a dynamic endeavor involving all the analogies, metaphors, and images that build bridges between the teacher's understanding and the student's learning. Pedagogical procedures must be carefully planned, continuously examined, and relate directly to the subject taught. Educator Parker Palmer strikes precisely the right note when he says knowing and learning are communal acts. With this vision, great teachers create a common ground of intellectual commitment. They stimulate active, not passive, learning and encourage students to be critical, creative thinkers, with the capacity to go on learning after their college days are over.

"Further, good teaching means that faculty, as scholars, are also learners. All too often teachers transmit information that students are expected to memorize and then, perhaps, recall. While well-prepared lectures surely have a place, teaching, at its best, means not only transmitting knowledge, but *transforming* and *extending* it as well. Through reading, through classroom discussion, and surely through comments and questions posed by students, professors themselves will be pushed in creative new directions.

"In the end, inspired teaching keeps the flame of scholarship alive. Almost all successful academics give credit to creative teachers - those mentors who defined their work so compellingly that it became, for them, a lifetime challenge. Without the teaching function, the continuity of knowledge will be broken and the store of human knowledge dangerously diminished.

"Physicist Robert Oppenheimer, in a lecture at the 200th anniversary of Columbia University in 1954, spoke elegantly of the teacher as mentor and placed teaching at the very heart of the scholarly endeavor: "The specialization of science is an inevitable accompaniment of progress; yet it is full of dangers, and its is cruelly wasteful, since so much that is beautiful and enlightening is cut off from most of the world. Thus it is proper to the role of the scientist that he not merely find the truth and communicate it to his fellows, but that he teach, that he try to bring the most honest and most intelligible account of new knowledge to all who will try to learn."

"Here, then, is our conclusion. What we urgently need today is a more inclusive view of what it means to be a scholar - a recognition that knowledge is acquired through research, through synthesis, through practice, and through teaching. We acknowledge that these four categories - the scholarship of discovery, of integration, of application, and of teaching - divide intellectual functions that are tied inseparably to each other. Still, there is value, we believe, in analyzing the various kinds of academic work, while also acknowledging that they dynamically interact, forming an interdependent whole. Such a vision of scholarship, one that recognizes the great diversity of talent within the professoriate, also may prove especially useful to faculty as they reflect on the meaning and direction of their professional lives."

Obviously, one of the major issues of clarification as this model of scholarship is applied will be to develop appropriate and correct methods of assessment. Clearly

each scholar will need to participate by providing documentation to prove the excellence of the scholarly work undertaken.

There is at present no more fertile field in higher education than this issue. The recent San Antonio conference held by AAHE was oversubscribed within a matter of weeks and discussions and presentations were lively. In addition, the Carnegie Foundation, itself, has convened scholars to study "Scholarship Assessed," a publication which it will issue as soon as possible.

In searching for the proper assessment of scholarship, there appear to be two major issues. First, what are the criteria by which these forms of scholarship can be assessed and are the four forms sufficiently inter-related so that one set of criteria can be used for all four? And, second, what documentation shall be needed to validate the assessment process?

In connection with the criteria, Ernest Lynton has proposed that at a minimum all scholarly activity should have a purpose, a described desired outcome, content and methodology. All of these should be based on reasoned choices derived from the scholar's expertise. In addition, quality scholarship always involves an element of innovation and discovery.

These criteria along with the criteria that are used by scholarly journals and scholarly presses are currently being examined by the Carnegie Foundation in anticipation of "Scholarship Assessed."

Documentation of scholarship should at a minimum speak to the scope of the difficulty and inherent importance of the activity, should describe how the scholarship made use of thorough, up-to-date knowledge in the field and be clear about the expertise involved in achieving the objective and describe the content and methodology. Where appropriate the originality in the process and the various steps used should be clarified along with the degree of success that is achieved.

Obviously, this documentation would be aided and abetted by a reflective essay, article or textbook, a course syllabus, a technical report, software, or by development of a portfolio.

All the items in the above paragraphs are currently under evaluation and discussion and scholars interested in this topic should stay involved in the conversations and debates now extant in higher education.

This new definition has obvious implications for the evaluation of scholarly work, for faculty members, for faculty careers, for graduate schools and for society. All of these issues were discussed in some detail in the remarks made on March 27. With regard to the implications for society, Derek Bok, the president of Harvard University, has warned of the dangers of detachment of the academic community. The definition of scholarship which is now proposed will bring the human community more clearly into focus for academicians. It will also lead to building bridges across the disciplines and for connecting the campus to the larger world. Through such a redefinition of scholarship bridges can be built to, for instance, the nation's schools, its health care delivery system, its banking system - all of which cry out for application of knowledge that expert faculty members might bring. Other problems, such as the environment, or ethical and social issues, or crime and poverty, require carefully crafted solutions that need not only new knowledge but integration, too. And surely without the scholarship of teaching there will not be an informed citizenry capable of critical analysis that so many critics say is lacking in America today.

In short, an expanded definition of scholarship would have not only a significant impact on higher education but also on society itself. These proposals are worthy of our most thoughtful consideration and attention.

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