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**SCHOLARSHIP RECONSIDERED:  
PRIORITIES OF THE PROFESSORiate**

**Remarks by  
Ernest L. Boyer  
President**

**The Carnegie Foundation  
for the Advancement of Teaching**

**IBM Higher Education Executive Conference  
Palm Springs, California**

**Wednesday, March 11, 1992**

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**SCHOLARSHIP RECONSIDERED:**  
**PRIORITIES OF THE PROFESSORiate**

Remarks by  
Ernest L. Boyer  
President

The Carnegie Foundation for  
the Advancement of Teaching

Thank you. This <sup>afternoon</sup> ~~morning~~ I've been asked to talk about

- **priorities of the professoriate in American higher education.**

And I'd like to begin

- **by reflecting very briefly on how the role of the faculty has changed throughout the years.**

## HISTORY

**When little Harvard College was founded in 1636**

- **the focus was on the student.**
- **Teaching was a central  
even "sacred" function.**

**And the highest accolade a professor could receive**

- **was the "famous one" Chaucer extended to the  
clerk at Oxford, when he said—**
- **"Gladly would he learn—and gladly teach."**

**And for a century and a half**

- **"Educating the whole person" was what  
scholarship in America was all about.**

According to its charter Harvard's goal was to

- "advance learning and perpetuate it to posterity."

And as late as 1869 Charles Eliot

- upon assuming the presidency of Harvard declared that
- the primary business of the American professor
  - must be regular and assiduous class teaching.

And for ~~several~~ several centuries  
educating young undergraduates was  
the whole scholastic in America was  
all about.

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## BUILDING

But then following the War of Independence

- the focus of higher learning slowly shifted,
  - from the shaping of young lives,
  - to the building of a nation.

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**In 1824, Rensselaer Polytechnic Institute**

- **was founded in Troy, New York.**
- **And according to historian Fred Rudolph**
- **RPI was a constant reminder that America needed**

**railroad builders,**

**bridge builders,**

**builders of all kinds.**



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**Then came the famous Land Grant Act of 1862**

- **which linked higher learning to the nation's agricultural revolution.**

**In 1867 Ezra Cornell**

- **in Ithaca, New York said**

**I would build a college**

- **in which every person**
- **can study any subject.**

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*social route*

And when Lincoln Steffens visited Madison in 1909 he said that

- in Wisconsin the university is as close to the "intelligent farmer"

as his pigpen

or his tool house.

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**The focus of higher education now was on**

- **reality and practicality**

**is the way**

- **David Starr Jordan**
  - **President of Stanford put it.**



AR

In 1903 David Starr Jordan, president of Stanford, declared that

- the entire university movement in this century is toward
  - reality and
  - practicality.

And by 1908, Harvard's President Lowell could claim

- at bottom, most of Americas institutions of higher education are filled with the modern democratic spirit of
  - "serviceableness."

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**And so**

- **By the late 19th Century**

**The scholarship of teaching**

**had been joined**

- **by the scholarship of building.**

## RESEARCH

Meanwhile, a third dimension of scholarly activity

- was beginning to take hold.

**America's first doctor of philosophy degree was conferred  
at Yale**

- **in 1861,**
- **225 years after the establishment of Harvard.**

**And about the same time American academics who studied  
at European universities were profoundly influenced by**

- **the emerging scholarship of science.**

**Men like Daniel Coit Gilman**

- ~~who founded Johns Hopkins in 1876~~
- were convinced that a new kind of university was required in America,
- one that focused "almost exclusively" on graduate education and research.

~~In response to this emerging influence universities like~~

- ~~Harvard and Berkeley, and most especially Johns Hopkins—to name a few—~~
- ~~began to "emulate" the European model.~~

~~And when the blueprint for Johns Hopkins was first drawn in the 1880's~~

- ~~no undergraduates were included.~~



Cushman it should be remembered  
was elected to the presidency of  
the Univ of California

in 1872  
at the age of 41

~~He was an unhappy man~~

He left within 3 years  
accused by the critics of

unity to Deanshire  
to agriculture & the  
"mechanical arts"

Ad give more emphasis  
to Logic, Literature & History.

Cushman went on the launch  
~~for~~ John Hopkins  
re notes for real  
entry 12 1876

~~And it should be remarked~~

~~that~~ what

Ad when the ~~for~~ Blue print  
of John Hopkins was first  
drafted

independents were  
excluded altogether

**The argument was that**

- **a "real" university should focus exclusively**
- **on graduate education.**

**In the end**

- **undergraduates were reluctantly included at**

**Johns Hopkins**

- **to help pay the bills.**

Upon his ~~retirement~~ retirement  
26 years later withdraw Wilson  
called it "Calman's law":

- "The first to organize and create... in America a unity in which
- "The Discovery & Dissolution of New Territories were conceded a Rank Superior to those TERRITORIES."

The line had been clearly drawn

The schedule of delivery was  
a hard where

"more clearly.."

Still for most calls  
the priority of the project  
continued to be focused  
on the classroom.

Comedy for comedy that when  
Robert Gordon Sproul ~~to~~  
became president of the Univ of Calif  
in 1932 ~~to~~ he declared it

"The Univ should be a  
training ground for scholars  
needed in my generation

Prof. Harold & Verne Sandstrom's  
history of the Univ of California  
was still

"An institution oriented  
institutions."

## THE CURRENT CLIMATE

But then following World War II.

- **Priorities of the Professoriate profoundly shifted.**

*for nation -*

**For the first time in higher education history**

- **federal research funds dramatically increased**  
**thanks to Vannevar Bush who argued**  
**persuasively that**
  - **academic research that had helped win the**  
**war**
  - **could also win the peace.**

At the same time, America was moving breathlessly from elite to mass higher education. - a Professor Math Jan described it

- And a new generation of scholars fanned out all across the country, intent on replicating the research model they themselves experienced.

Higher education in this country

- had multiple missions,
- but a unitary model of assessment.

Innately Research became the primary criterion by which Faculty achievement would be measured

As the status of almost all ~~College~~ type ~~level~~ institutions in the country - Except ~~any~~ ~~other~~ ~~type~~ ~~of~~ ~~institutions~~ was measured by ~~the~~ ~~same~~ ~~model~~ ~~the~~ ~~Backus~~ ~~John~~ ~~High~~ ~~school~~



Although it should be mentioned  
that ~~the~~ the people ~~is~~ model  
is admitted to ready for  
for you 30 years

As late as 1969

only 41 percent of the  
people in the U.S. said

It is difficult for a  
person to return home  
if he or she does not prefer

Even for such large numbers  
it was not 70%.

*Jim Seeger*  
~~The irony was that~~

- at the very time the mission of higher learning was expanding,
- the priorities of the professoriate were being narrowed
- and there was tension in the system
- as most campuses were influenced primarily by the Hopkins model.

*And that course we caught  
in the course of two great  
generations*

To put it simply,

- following World War II American higher education was caught in the crossfire of two great traditions.

On the one hand there was the colonial college tradition with its emphasis

- on the student,
- on the general education,
- and on loyalty to the campus.

On the other hand, there was the European university tradition with its emphasis

- not on the student—  
put on the professoriate,
- not on general—  
but on specialized knowledge,
- not on loyalty to the campus—  
but on loyalty to the guild.

Ad on most Cambridge Jews  
a struggle for the soul  
of the nation

Are we a Calcutta City?  
or a Racial City?  
or a Blend of Both?

<sup>DW</sup>  
~~Frankly~~, most colleges <sup>try to lure</sup> ~~have wanted~~ it both ways.

They really are <sup>'collegiate'</sup> "collegial" when colleges ~~are~~ out recruiting students

- <sup>Ad pamphlet</sup> brochures are filled with <sup>sentimental</sup> ~~Colonial College~~ language like
  - "community" and "collegiate" and even "family."
  - And students are promised loving, tender care.

~~And even the pictures we present conjure up~~ <sup>try to lure</sup> the imagery of a ~~small New England college.~~

- ~~The kind~~ that caused Daniel Webster to recall with a lump in his throat,
- "She may be small, but there are those of us who love her."

~~The~~ pictures in ~~yearbook~~ <sup>yearbook</sup> conjure up intimacy & affection.

But when students come to campus, especially the freshmen and sophomores

- ~~are disconnected from the culture.~~ <sup>from their families in a</sup>
- That's deeply divided with faculty on ~~the~~ <sup>higher</sup> one side and students <sup>culture</sup> on the other.

It's only when students choose a major that the two cultures begin to come together.

- In graduate school there's  
a new close bond  
of the two

- But at the doctorate a  
discontinuity level the two  
are increasingly incestuous  
is featured.

### FACULTY AND STUDENT TENSION

The irony is that no one seems <sup>positively</sup> ~~politically~~ comfortable with this arrangement.

- In <sup>a</sup> the Carnegie survey of faculty <sup>Frank</sup> ~~60~~ percent <sup>said that</sup> ~~said~~ they prefer "teaching to research."
- And 71 percent <sup>said</sup> ~~say~~ that we need better ways—beside publication—to measure faculty performance.

And most disturbing

- many colleges in this country are attempting to be
- more imitative,
- then distinctive.

## **THE ANSWER?**

**Well, what precisely are we to do about all of this?**

**Is it possible to somehow relieve the tension between the university and the Collegiate Model?**

- **And view the role of the professoriate in a way that expands the unitary model?**



Recently—at the Carnegie Foundation—we released a "little" monograph subtitled

- *Scholarship Reconsidered*

And in this report we concluded that the time has come

- to move beyond the tired-old
- teaching vs. research debate

and begin to ask the much more compelling question

- What does it mean to be a Scholar?

**And in response to this intriguing question "What Does it Mean to be a Scholar?" We concluded that there are—in fact**

- **Four interlocking dimensions of Scholarship**
- **all of which should be recognized and rewarded.**

## **Scholarship of Discovery**

**We say first that**

- **research is and must remain at the very heart of academic life.**
- **The pursuit of new knowledge must be vigorously cultivated and defended.**

**And we celebrate in our report what we call**

- **The Scholarship of Discovery.**

**Fifty years ago,**

- **Vannevar Bush—former President of MIT put it this way:**
  - **"Universities—he said—are the well spring of knowledge**
  - **And as long as scholars are free to pursue truth wherever it may lead**
  - **There will surely continue to be a flow of new scientific knowledge."**

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**Not every institution can fulfill the essential mission.**

- **Indeed, I worry about the imitatives who diminish resources and devalue the currency of the intellectual life.**

*each*

**Still we must have centers of distinction.**

- **And we strongly urge in our report that**
  - **federal research funds be expanded.**
  - **And we also urge that basic research stay within the academy itself.**

*← 30*

There can be no university without the

- Scholarship of Discovery.

(5)

## **SCHOLARSHIP OF INTEGRATION**

**And this leads me to priority number two.**

**In the new Carnegie Report we say that**

- in addition to the Scholarship of Discovery**
- we also need what we call**
- the Scholarship of Integration.**

John Henry Newman declared in his elegant essay on higher learning that

- the special mission of the university "is to draw many things into one."

~~And I'm convinced that~~ in our fragmented academic world we urgently need scholars

- who go beyond the isolated facts
- who make connections across the discipline
- and who can—by their collaborative investigation—help shape
  - a more coherent view of knowledge
  - and a more integrated, more authentic view of life.



*NA* The writings of

- Stephen Jay Gould.

The essays of

- Lewis Thomas.

And Stephen Hawking's brilliant little book on the history  
of time

- illustrate—at the richest level—
- the kind of integrative scholarship we have in  
mind.

**The Nobel Laureate, Barbara McClintock, wrote on one occasion:**

- **Everything is one.**
- **You can't draw a line between things.**
- **And yet, on most campuses we've broken up the disciplines into smaller and smaller units,**
  - **that are administratively and politically convenient,**
  - **but not necessarily intellectually revealing.**

**Frank Press, the President of the National Academy of Sciences recently suggested that**

- **the scientist is, in some respects, an artist, too.**

**Frank went on to observe that**

- **"the magnificent Double Helix—which broke the genetic code**
- **is not only rational," he said,**  
**"it's beautiful as well."**



And several years ago when the world renowned physicist  
Victor Weiskopf was asked

- what gives you hope in troubled times
- he replied, "Mozart and quantum mechanics."

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I'm suggesting that scholarship means

- specialized research.

But it also means moving beyond

- traditional, academic boundaries
- and putting our discourse in
  - historical,
  - social, and
  - ethical perspective.

*It seems increasingly apparent that*  
 Indeed, I find it fascinating the departmental boundaries  
 are beginning to break down

- precisely because the old categories of knowledge don't fit the new intellectual questions.

And it seems to me that the most exciting work going on in  
 the academy today is

- in the hyphenated disciplines,
- in psycho-linguistics,
- in bio-engineering and the like.
- In what Polanyi calls the
  - "overlapping academic neighborhoods."

And I ~~find it especially revealing that~~ <sup>Recent</sup> in our ~~national~~  
survey <sup>of the report</sup>

- 93 percent of ~~the~~ faculty at research universities agreed that
- <sup>^</sup> multidisciplinary work should be considered scholarship.

Several years ago, Professor Clifford Geertz, at the Institute for Advanced Study, wrote a provocative essay several years ago entitled

- "Blurred Genes."

In this essay Geertz concluded that

- "something is happening today to the way we think about the way we think."

And he concludes that new disciplines are emerging

- in response to new intellectual questions
- that simply do not fit into the traditional academic boxes.



**Over fifty years ago, Mark Van Doren wrote that**

- **the connectedness of things is what the educator contemplates to the limit of his category.**

**Van Doren concludes by saying that**

- **those who can begin early in life to see things as connected**
- **have begun the life of learning.**

**And this ability to look across the disciplines and discover relationships and patterns is—it seems to me—what good scholarship is all about.**

## THE SCHOLARSHIP OF APPLICATION

This brings me to category number three.

We say in the Carnegie Report that

- beyond the "scholarship of discovery"
- and beyond the "scholarship of integration,"

we also need what we call the "scholarship of application"  
which means relating

- the theory of research
- to the realities of life.

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*A That's*  
~~This idea of making knowledge "useful" is rooted~~

- in the land-grant colleges,
- in the polytechnic institutes,
- in the normal schools,
- in the conservatories.

*42* ← Institutions that were—in the nineteenth century—in the nation's service.

*And the dimension of scholarly work*

In recent years, ~~the idea of "service"~~ *directly* has fallen into disfavor because no sharp distinction has drawn

- between "doing" scholarship
- and "doing good."

~~And~~ the term "service" has like "silly putty" been shaped to mean

- almost anything at all.

In the Carnegie Report we say that for service 45

- to be considered scholarly,
- it must be tied directly to one's special knowledge.
- And flow directly out of the theory of the field.

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**Donald Schön of MIT writes convincingly about**

- **what he calls "the reflective practitioner."**
- **Which means moving**
  - **not just from theory of practice**
  - **but from practice back to theory.**

*Look down the road*  
And I'm convinced that there is a growing need for the scholarship of application.

Today our shorelines are polluted,

- our ozone layer may be threatened,
- our cities are imperiled.

*I'm convinced in ten days ahead the rates*  
And ~~I expect~~ that ~~today's~~ colleges ~~and~~ universities

- ~~will increasingly~~ be expected to respond to the crisis of this century,
- just as they responded to the needs of agriculture and industry a century ago.

**And speaking of the scholarship of application, I'd like to urge especially that colleges give more support to precollegiate education.**

**The harsh truth is that today the nation's schools are hopelessly overburdened.**

- **They're being asked to do what the families**
- **and churches**
- **and communities**

**have not been able to accomplish.**

**And I'm convinced that if we don't help save the nation's schools**

- **universities will inevitably decline.**

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**I'm suggesting that—in the end—"theory" simply cannot be divorced from practice, and that in developing new priorities for the professoriate**

- **we simply must give new dignity and new status**
- **to what we call the scholarship of application.**

**Oscar Handlin wrote on one occasion that we**

- **"Can no longer afford the luxury of pursuits confined to an ivory tower.**
- **Scholarship"—he said—"has to prove its worth not only on its own terms,**
- **but by service to the nation and the world.**



## THE SCHOLARSHIP OF TEACHING

This brings me to category number four.

We say in the Carnegie Report that scholarship means

- not only the ability to discover and to integrate and to apply knowledge.
- It also means inspiring future scholars in the classroom,
- a process we call the scholarship of teaching.

Several years ago, I could not sleep, and instead of counting sheep I tried to recall all the teachers I had.

- I must confess there were a few nightmares in the bunch.

But I also remembered three or four outstanding teachers

- who not only knew their subjects,
- but knew their students, too.

**These wonderful mentors had a huge impact on my life.**

- **And I suspect that almost everyone in the audience today is here because of at least one inspired teacher.**

**And yet what's disturbing is that this essential dimension of scholarship is often undervalued**

- **and it's disquieting that a professor may get more credit delivering a paper at a conference at the Hyatt in Chicago,**
- **then he can in teaching undergraduates back home.**

**It's easy to get sentimental about teaching.**

**But my larger point is that if we hope to keep scholarship  
alive we need classrooms**

- **where there is active, not passive learning,**
- **where students are creative, not conforming,**
- **and where undergraduates learn to work together  
rather than compete.**

**Since—in the coming century—the truly consequential  
human problems will be resolved—only through  
collaboration.**

I'm suggesting that

- the undergraduate experience is the foundation on which a great research center
- must be built.
- ~~And teach at the level also~~ must be a priority on the campus.

I'm saying that Excellence cannot be divided

Put it a college or better  
Small ~~academic~~ networks

~~It seems~~  
It seems on ethical  
+ thank to give each  
+ don't a fully whole

**Robert Oppenheimer,**

- **at the 200th anniversary of Columbia University  
put it this way:**

**He said that**

- **it's the proper role of the scientist that he not  
merely find a new truth  
and communicate it to his fellows.**

**But it's also the role of the scientist—Oppenheimer said—**

- **that he teach,**
- **and he try to bring the most honest and most  
intelligent account of new knowledge  
to all who will try to learn.**

**And surely this means inspiring future scholars in the  
classroom.**

## CONCLUSION

~~Here, then, is a summary of our report.~~

In the new Carnegie Report we insist that scholarship surely means

- the discovery of knowledge
- as in research.

**But we say that scholarship also means**

- **the integration of knowledge**
- **to avoid pedantry.**

**It means**

- **the application of knowledge**
- **to avoid irrelevance.**

**And finally it means**

- **the transmission of knowledge**
- **in order to sustain the continuity of scholarship  
across the generations.**



**It's my own view that this full range of scholarship can flourish on a single campus**

- **but I'm also convinced that colleges and universities need to find their own special "niche" within the spectrum.**

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- **Let's have undergraduate campuses where the**
  - **scholarship of teaching is a central mission.**
  
- **Let's also have comprehensive colleges and universities that promote integrative studies**
  - **through a core curriculum,**
  - **through interdisciplinary seminars,**
  - **and through team teaching.**

**And let's have colleges and universities that give top priority to the scholarship of applying knowledge.**

- **In schools,**
- **in hospitals,**
- **in industry and business,**

**-much as the land grant colleges worked with farmers.**

## RESEARCH UNIVERSITY

And yet—~~in the midst of all of this~~—it seems to me that the research university has the most challenging task of all.

- ~~It is after all "the flagship"~~<sup>which</sup> that sets the
- standard of excellence for all others.

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**In the Carnegie Report we say that**

- **research and publication surely must remain a key criterion**
- **by which the performance of faculty will be assessed.**

**But we also recognize that**

- **at the great research centers there are**
  - **institutes and multidisciplinary programs**
  - **that focus on the scholarship of integration.**

**Research universities—especially those in the Land Grant tradition—**

- **also are involved in the scholarship of application**
  - **in medical clinics,**
  - **law school,**
  - **agriculture,**
  - **education,**
  - **in business**
  - **and in theatre and the arts,**
    - **which blend action and reflection.**

**And, of course, research universities enroll tens of thousands of undergraduates every year**

- **which necessarily involves them in the scholarship of teaching.**
- **And those who are assigned to teach**
  - **surely should be rewarded for their work.**



**To expect a single institution to achieve excellence in the full range of scholarship**

- **is ambitious,**
- **if not audacious.**

**And yet I suspect that it's only at the great university centers**

- **where scholarship,**
  - **in its richest, fullest sense,**
- **can come together.**

## **BENEDICTION**

**We have, here, in the United States more than 3,000 colleges and universities.**

**What we've really tried to say in the Carnegie Report is that**

- **we need higher learning institutions that are**
  - **not imitative,**
  - **but distinctive.**

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And we ~~simply~~ urge that every college and university

- seek to define its own unique mission
- and seek to develop its own system of faculty rewards
- to match those special purposes and goals
- ~~and that is of course precisely why we've gathered here today.~~

TWU-R.DOC, (ELB,SPC/dmo), October 23, 1991

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**Federal research funds**

- **for the first time dramatically increased**

**And at the very time**

1. • **The mission of American Higher Education was expanding**
2. • **The reward system of the professoriate was being narrowed.**