With the changes in undergraduate education and the growth of community colleges, the concept of the continuous residence requirement for the baccalaureate degree may be going out of style. There is also increasing demand for changes in residence requirements at the master's level, because many of those pursuing this degree hold full-time jobs. Changes are also necessitated by the technological revolution in education. At the University of Illinois, PLATO, a computer-based education system, is already in wide use, and there is every reason to believe that by the mid-1970's a statewide PLATO network will begin to break down the lockstep of the formal educational process. This will mean that the University will be able to reach over hundreds of miles, with persons completing courses without ever having been on campus. It will make residence requirements obsolete. At the graduate level the substantive reasons for residence requirements will have to be re-examined, for it is not so much that the doctoral student needs the institution, as that the institution needs the doctoral student, for graduate students play a vital role at the center of the university's intellectual life. The role of the graduate student is changing, as is the society he lives in, and this must be taken into account when resident requirements are being established. (AF)
RELEVANCE OF THE RESIDENCE REQUIREMENT*

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DR. DANIEL ALPERT: In asking me to speak to this topic, the relevance of residence requirements, Boyd Page called to my attention the rapid changes going on at the undergraduate and master’s degree level and pressures in those areas for reducing residence requirements.

Although I am not aware of serious challenges to the concept of residence requirements, nor that this is a burning issue at the Ph.D. level, I agreed to try to review the implications of the changing world we are in on the residence requirements at the doctoral level.

My first response is that at this level the questions facing student and faculty alike is not the minimum residence requirement for the Ph.D. but, rather, the maximum residence which should be imposed or permitted before granting the degree. And since our minimum requirements are typically so much less in time than that required to get the degree, the requirement as such is irrelevant.

Furthermore, the actual duration of his stay may be determined by completely external considerations. Some years ago it was the nature of the draft laws; today such things as job availability really have a major impact on how long our graduate students stick around.

And having made those comments, I could stop at this point and go on, but before turning to other subjects, I would like to make a few further observations
about resident graduate education and the changing environment.

What are the implications of current changes in residence and other requirements at the undergraduate level? As you know, many undergraduate institutions are introducing flexibility in course selection and grading which will soon make the grade point average meaningless as an index of student performance. Some colleges give full credit for a semester or a year creatively spent outside the formal educational establishment. Other colleges, anticipating the recent recommendation of the Carnegie Commission, are considering a reduction from four to three years as a requirement for the baccalaureate degree.

The current revision of undergraduate education, really being led by some of our liberal arts colleges, is inspired in part by the growing financial squeeze that they experience. This rethinking of objectives and priorities will soon change the entire concept of a baccalaureate program.

At the same time, the growth of community colleges suggests that fewer students will spend all of their undergraduate careers at a single institution. It
may be only a question of time until continuous residence at a given campus as a requirement for the baccalaureate degree will go out of style.

Concurrent with these changes at the undergraduate level are increasing demands for changes in residence requirements at the master's level. Here the picture is confused by the wide variety of requirements and expectations which characterize this degree.

Furthermore, the student population is divided between young recent college graduates and mature practicing professionals interested in updating their skills or enhancing their certification status. It is at this level and with this population that we are confronted with increasing demands to permit students to take courses and be certified, even while holding down full-time positions elsewhere.

While this considerable turmoil in the structure of undergraduate and master's education is in a state of rethinking, I am persuaded that we are on the cutting edge of a technological revolution in education, a revolution that will bring changes into education, comparable to those brought on by the introduction of the printing press. That technology, the technology of the
printed page is 400 years old and showing many signs of obsolescence and reduced usefulness in storing or transmitting knowledge.

As some of you know, I have been closely associated with a special program in computer-based education at the University of Illinois. This program has already demonstrated that remarkable changes are possible in teaching capability and economics, increasing the productivity of the educational process.

The areas in which Plato has already been used range from elementary reading to advanced chemistry, from pharmacology to political science, and from computer program to population genetics. Even in the prototype Plato IV system we envisage thousands of consoles in an educational network distributed over the State of Illinois and elsewhere. There is every reason to believe that by the mid-1970's a statewide Plato network will begin to break down the lockstep of the formal educational process, both the lockstep in time and the lockstep in geographic space.

The Plato system can make it possible for students at any community college located within the State of Illinois to take certain basic courses with Plato that
are identical to the courses being given to our freshmen and sophomores at the University at Urbana-Campaign.

How can we deal with education and certification at a distance? It is my opinion that we shall have to consider this question in straightforward, pragmatic terms. If we grant a master's degree to a student in residence for having successfully completed a string of courses, I don't see why we should not grant the master's degree if those courses are successfully completed by other means in or out of the classroom. There is every reason to believe that in many fields the new technology will provide better and more individualized instruction than will be available in our classrooms and lecture halls.

If it is interaction between professor and student or among students that we believe to be essential for a master's degree, let us ask how we optimize such interaction. Does it make sense to ask a 45-year-old engineer to leave his job and home for a semester or a year to take part in our current classroom exercises?

If certification were required for the job of graduate dean--perish the thought--how would we go about setting up the residence requirements? (Laughter)

With the aid of the new technology, I
believe that within a decade the university as a center for teaching will be capable of reaching out geographically over hundreds of miles. Furthermore, I believe that the university as a center for teaching will not place restrictions on the age or educational levels of its clients.

We may have to design some new degrees. I will leave it to your imagination to design some residence requirements.

I for one foresee that a number of our teaching assistants at the university at the Urbana-Champaign campus will become research assistants looking over the educational process for students over a large radius.

How do these developments relate to residence requirements for Ph.D's.? Obviously the changes in baccalaureate programs will present us with admission problems. Without the grade point average to characterize incoming graduates, how will we identify good students? Well, I am not really too much worried about it. We already depend to a greater degree on the written or oral evaluation of his instructors.

But how about the reduction of the bachelor's program from four to three years? Does that
mean that the Ph.D. will be extended by a year? We all know that at the present time there is a distinct difference between the preparation of a typical student from a liberal arts college and the undergraduate degree holder from an M.I.T. or Berkeley, and we often realize an extra year in the course of their Ph.D. programs.

Will we dispense with the residence requirements for Ph.D's. or radically change the nature of those requirements? It seems to me that we cannot and should not do without our graduate students in residence and hence we will continue significant residence requirements.

You will note that I mentioned that we need them, so we had better put some requirements that keep them. We generally turn it the other way around, of course; we generally talk about education, even at the graduate level, as if whatever we do is done solely from the point of view of the graduate student.

I think sometimes the semantics we have used in that regard get us in deep trouble with the society that supports us.

To answer the question in significant terms we will have to re-examine the substantive reason for our residence requirements. In this regard if there is a
single theme I would like to underline in the course of this talk it is that the Ph.D.--that is, the doctoral student--brings to the campus as much as he takes away. Indeed, without doctoral candidates an institution might be a center of teaching but it is far less likely to be a center of advanced learning.

Graduate students learn quite a bit from their professors, but they typically learn much more from their fellow students. Furthermore, professors typically learn as much from their students as they teach them. The unique roles of the professors is to set standards, to help in posing problems, and in establishing the cultural style. That is the role of the professor and when we criticize the product that comes out in terms of the narrowness of his perceptions, we are not criticizing students nor are we even criticizing curricula; we are criticizing ourselves.

I happen to believe that that kind of criticism will not change for the Doctor of Arts or any other professional degree that we may establish.

So quite apart from the economic function of graduate students, indispensable in many universities, for example in the teaching of undergraduates or in
providing professors with professional research assistants, graduate students play a vital role at the center of the university's intellectual life. For this reason, of course, we had better have them in residence.

But it is time to make a serious reappraisal of their role in the life of our institutions.

I have found it interesting and useful to consider how doctoral candidates do fit into the major functions of the university. The commonly accepted social functions of the university are, first, the creation of new knowledge and its integration in the existing body of knowledge. This includes the maintenance of intellectual standards for our society.

Second, the transmission of knowledge and know-how to the new generation, the training of experts and professionals.

Third, and this relates largely to the undergraduate, the socialization of late adolescents and young adults, the provision of an opportunity to select life styles and the certification that they have done so.

And fourth, the application of knowledge to the solution of practical problems, problems posed by society.
To these four commonly accepted roles I would add the transmission of knowledge and know-how to mature citizens, especially in their transition to new professions or positions.

It is interesting to reflect how the role of graduate students has changed in each of these major roles of the university. Perhaps it has changed least in the typical pursuit of new knowledge and the integration into the fabric, the existing fabric of knowledge.

If it is changed, it has been related to the persistent demand by students that we consider the values and the objectives of those pursuits.

In the transmission of knowledge to a new generation--I have commented on it already--in many of our large state institutions they play a direct economic function in taking part in the classroom.

In the area of the socialization in selecting of life styles for undergraduates, in some way I perceive a greater change than in any of the others. For example, it strikes me as interesting that the life style of many of the undergraduates that I meet bears a much greater relationship to the independent and interdependent life style of graduate students than it bears any
relationship to the fraternity-sorority culture of my days as an undergraduate.

And fourth in the area of the solution of practical problems, the application of knowledge to problems posed by society, it seems to me that graduate students have had the least of substantive contributions and the most in the way of criticism and demands in terms of the word "relevant" as it relates to their education.

I think they have had relatively little to contribute because of a comment made by one of the panelists yesterday: This is an area where typically it takes experience and the greatest contributions have come from people over 30.

As we reflect upon the changing role of graduate students, it goes without saying that we have some real homework to do. That homework goes far beyond establishing residence requirements. We have to re-evaluate the roles of teaching assistants, and in my view, this is a viable role if, and only if it is a creative part of the student's learning process.

If this role becomes determined over the bargaining table, it is only a question of time until the real value to society will be limited, and it may well be
that we will eliminate it from the process.

One of the ideas which we as graduate faculty have tried to inculcate both in our clients and sponsors, is that the university, in particular the department, is the locus of a cultural environment. To achieve intellectual independence we say the student must be a part of that environment for a minimum period of time.

Now I believe this is a justifiable assertion, but only to the extent that the department, college, or university represents a true community. The student can gain from that in a realistic sense to the extent that he is a part of it. And especially at a time when there may not be a job for him at the other end of the pipeline, it is important to us that he feel that he really got something out of the experience. There is no point in demanding residence in an environment which has embedded in it basic hostilities and a vision of the world which is viewed through a narrow, darkened slit.

If the fragmented community is to be reunited, all departments must face up, not only to their own problems, but also to those of the university as a whole.
It is interesting to me that a decade ago it was the humanities and in part the social sciences that were concerned and preoccupied with what seemed to be a losing position in terms of the role they played, either in the university or in the society as a whole.

Now the physical sciences and engineers have joined that party.

And when the world was seen to need—to be in greater need of highly educated men than ever before, it is rather tragic that we suddenly seem to be limited to be the only consumer of our own product. Even the physical sciences and the life sciences are going to have to find out what went wrong, why society doesn't love them any more, and they won't find that out in the laboratory.

If the cultural environment is to be a major rationale for having a residence campus, that environment must be conducive to individual growth and learning and to an understanding of the relationship of the university to that outside world.

On the other hand, if the objective of our education is to provide courses or to develop particular skills, I believe there are better ways and certainly more
economical ways to do this than keeping graduate students in residence for a number of years.

In other words, I believe that the university can be a center of teaching and reach out to many thousands of students, even at remote locations. I do not believe that it can be a center of advanced learning without having both faculty and graduate students in residence and sharing that community of intellectual interest.

The world we are experiencing in higher education in 1970 is almost totally at odds with the world we experience only five years ago. And viewed from that point in time, virtually unpredictable. It is my view that the world of '75 will be just as different from the world of today as our world is from that of '65. I do get comfort from the fact that some real changes are going to happen and it provides me with a sense of challenge and opportunity as well as concern.

In this talk I have talked of doctoral candidates primarily rather than restricting it to Ph.D's. With regard to the Doctor of Arts or any other doctoral program I think that if such degrees become meaningful, it will not be because we have strung together a different set of courses in the curricula or truncated some of the
requirements. I think that if such a degree becomes meaningful it will be because we have changed, we, the graduate faculty have changed our values or the actual activities that we are interested in.

With that in mind, I have not taken this opportunity to stress the differences in the residence requirements between the Ph.D. and any other doctoral program.