

INTERVIEWER: We had finished off, we were discussing the students who had occupied this office, or the President's Office.

JOHNSON: Yeah. Well, a lot still happened in that year of '71. We had a lot of work to do. And Jerry Wiesner was elected president of the Corporation meeting in the early part of the year. And of course, we had worked together. So the transition was minimal. And it was almost a seamless transition. That's really fair, to call it that. I had worked enough with James Killian. So it wasn't very difficult for that transition, either.

I did move, though. This was the office that I had during my presidency. It looks a little different, but basically it's this office. And I really felt strongly that the provost ought to be next to the president. His work with the president was day to day, and I thought it made sense. And so I'm not sure that everybody thought it was a great idea. They were so used to, I was in this office, Killian was in the other office. But I found that small cluster of offices down where the Chairman's Office is now, and had it put together for an office. Betty Whittaker, was still my assistant, came with me. Remained there till the end of our 12 years.

Dr. Killian had been in the Chairman's Office for 12 years, and while I didn't plan it that way, that's what I had, too. I was president till June, or July first, of '71. I think those dates are right. It must be. And then I was chairman till '83. Now I'm relying on memory. I haven't looked at those dates. And if you find they're wrong, don't be too surprised.

INTERVIEWER: Now, where was the provost located before he moved into this suite?

JOHNSON: He was down the next corridor, quite a ways. And that's where Wiesner was. And it now, of course, Walter Rosenblith became the provost, and he was in here. And Wiesner was in the office.

All that makes no real difference, except I do believe there's a certain efficiency of having those two together. And you can just call out the door to get the other person.

And I had had some changes to make in my own working style. Because in a way, as Van Bush used to say -- I asked him. I asked Vannevar Bush, 'what the president did, what the chairman did.' He said, well, the president runs the Institute from the inside looking- out. The chairman runs it from the outside looking in. I think he was exaggerating. He had never been president. He was chairman, and he took on a little extra there.

But that was -- in a certain way, it meant that my focus had to become much more looking out. Our constituencies representation had to be moved up, I thought. And that meant, of course, our trustees, first of all. The trustees work essentially in a body, with the chairman as chairman. So we have a large Corporation body. So as you can imagine, I wanted to see each of those people. I had known them, but now I had responsibility for the process of choosing new Corporation members.

We had introduced, in the previous couple of years, a set of ideas. One of them was that we needed younger members of the Corporation. We needed some younger members, and if we waited for normal attrition, it would take a long time. So we proposed a class of Corporation member that, more recent graduates. Five of them, stepping in succession. They each served five years. Some of them were undergraduates, had just finished their undergraduate years. They all had to be separate from the Institute. They had had to finish their work. And some graduate students. A total of -- we elected one a year, so there were five in office at any one time. And we did the obvious catching up in that first year.

They have proven to be, as you may have heard from others, in my judgment a great addition to the Corporation. We also developed a modest mechanism so they could meet with, let's call them the more senior members of the Corporation. They quickly became, in spirit and in fact, full fledged members of the Corporation. They added a great deal, and I believe still do. That was a long time ago. And it was a new idea, at the time, across the country. And that worked.

To go back, the Chairmanship itself -- I thought a lot about it at the time. I remember, see if I can recall what I was thinking about -- is, I believe, unique to MIT, the way we do it. The chairman is and should consider himself a full-time -- he's not a part-time chairman. His purpose is to support, guide, and stand ready to support the president. He -- and I say he in the sense that we will surely soon have female Chairs. Haven't had yet; we had a female president. But that has worked well for MIT. Killian succeeded Bush; Bush succeeded Compton; I succeeded Killian, and so on.

We had a break in -- typically. With one exception. The chairman until I came in, when I came in, had all been former presidents. That changed after me, because Wiesner didn't, just didn't feel that he was up for that job. He was a little older; he had other things that he wanted to accomplish. And so he didn't want to become the chairman when he retired from the presidency. We then had to worry about how we dealt with that problem, but we can talk about that a little later on.

And at the present time, although Dana Mead is a graduate of the Institute, holds his degree, holds his doctorate from the Institute, he was never president, of course. Nor was Alex, who preceded him. I don't know how that's going to work in the future. Whether we will go back to having the likelihood of a former president becoming chairman.

INTERVIEWER: Sure. That's another topic I wanted to bring up, was, Rosenblith had called, starting with your tenure as president, with yourself, President Wiesner, then Present Gray, as well as himself as the Camelot of MIT. It was with the four of you together had interacted in so many respects, as deans, as chancellors, as provosts; it's this very close-knit group. Was it a close-knit group? And can you talk something about the persistence of these group of men, as you rose through the ranks and you came from provost to president to chairman? What was it about this group?

JOHNSON: It was a special group. It was a special group. We knew each other very well. Wiesner and I had worked, and of course Rosenblith was in that group. And the three of us were very close, and we brought Paul into it. And so it really was -- and when I told the group that I was going to leave the presidency, Rosenblith spontaneously, with tears in his eyes, said this has been a Camelot for us. And he was referring to a larger group than that. But he really meant the four of us.

And we had a certain continuity then, in those jobs, that served the Institute well at that particular time. There's always some fitting and cutting and trying when you get a person who comes fresh to the job, hasn't worked with the principles before. But I have found that easily workable, and we've not had a major problem.

But at the time, the four of us working close together for a number of years, certainly more than 25, worked very well for the Institute.

INTERVIEWER: It was also unique in that, you mention the continuity of it, as well as the persistence. That after you had held these notable posts, that they persisted. President Gray became chairman then he returned to the faculty. President Wiesner returned to the faculty. They could have had opportunities to serve elsewhere, other universities or government posts.

JOHNSON: I don't think they ever considered it.

INTERVIEWER: Why? What is it about MIT that makes them want to persist?

JOHNSON: People ask that question. People, especially presidents on the outside, you know. Presidents at other institutions are kind of shown the door in a pleasant, ceremonial way. But they're not expected to come back too often. We actually -- it's not a bylaw, it's not a rule -- but we certainly say to the outgoing president, you've got an office here for life.

Now the interesting thing is that Chuck Vest has now taken a major post that takes him away from Cambridge. I became president of one of the other institutions, the Museum of Fine Arts, when I -- well, I did it concurrently with being chairman. But I continued to maintain a role there. I always put MIT first. That was where your heart lies, or my heart lay. And I worked it that way. But I think, I think we are sui generis, in that sense.

When they did a major study of the presidency in the United States some years ago, a number of people were involved. None of us were involved; they were chosen by the Ford Foundation. And although we all contributed to some discussions on it, we were not involved in the group that put the report together. They commented on MIT's uniqueness in that sense. That there were two kinds of institutions where the leadership was predictable. One was MIT; the other was the Catholic Church. I never knew quite how to take the second part of that. And in any case, we're a little bit more ecumenical now.

INTERVIEWER: Well, describe that. With this continuity, with President Vest and President Hockfield there has been a shift at bringing in outsiders. Could you maybe elaborate on what kind of benefits and costs or detriments are associated with having insiders be leaders, versus bringing in outsiders.

JOHNSON: Good question. It's a good question. We were going down the path of choosing, as a successor to Gray, somebody who had deep MIT involvement. It didn't quite work. And so, I and others felt we ought to cast the net a little wider.

And almost -- I was active in the Sloan Foundation, and I'd chaired the Sloan Foundation. And a trustee of the Foundation, Harold Shapiro, as a matter of fact, came up to me at a meeting that occurred soon after we realized we had struck out here. But we were going to go back to our several candidates, excellent candidates. And Shapiro said to me that a previous dean of engineering, then provost at the University of Michigan -- with which we had had good ties, like we had with many other of the AAU institutions -- he thought was outstanding. And he sensed that there was an opportunity there.

And I think we called him that very night, and he said yes, he'd be willing to talk about it. And so that worked. And Vest, after perhaps a year or two -- there's bound to be some time just to learn the nomenclature -- I thought took it on very well.

Now it's interesting to me that Chuck decided to take the presidency of the National Academy of Engineering, which takes him -- which will be for a number of years. But it takes him to Washington. And that's where he will live. So he will not be in that sense physically close to MIT.

I watch President Hockfield with delight and amazement. She seems to have been here forever. After just three years, I believe it is, she feels, I'm sure, very much at home. I've often thought that our -- the tone, and tint of MIT, and its president's house, very much in the middle of things -- perhaps not quite in the middle -- encourages that. But I think that has worked.

But it shows that we are flexible, and that we change with the time. The field is changing. I felt strongly, I had a modest involvement with the committee that did the real work to search for candidates. I felt that if it were possible, we should put weight on biology as a background. Nobody had the prescience to think we could reach out -- although from the beginning we said that was certainly in the field. It would have been a long reach at that point. And following our lead, a number of other institutions have done the same thing. Although there were a couple of candidates before that.

INTERVIEWER: You mentioned, you alluded to this earlier, that after you had stepped down from the chairmanship there was a small crisis because -- not crisis, it perhaps overstates it. But that because Wiesner did not want to assume the chairmanship, that it then fell to find a candidate outside of this kind of continuity that we had had before.

JOHNSON: Yes. Part of it was -- first of all, I understood it exactly. Wiesner had made clear his view on this long before the event. He was several years older than I, nine years older. And there is a certain wearing down, especially in that period. And he had some vital work, which he considered very vital, in the area of disarmament, reducing the possibility of war threat. He had worked on that with the Soviets, with some close colleagues there, and with colleagues here. That was his principal interest. I sure understood all of that.

It's hard to think now, in these years while we've got lots of problems on our hands, of how tense the years of the Cold War were. It was my own -- I've never talked about this, but -- my own belief was there was a sizeable chance that there would be an interchange of weaponry in some way during some of those years. That it never happened was a tribute to several things, but certainly was the effort of both individuals in the Soviet Union and surely individuals in the United States trying to work private modes of conversation.

One of our, one of the principal avenues, circuits, was science, of course. You could be science and not be -- you could be focused in science and escape the easy label of being politically involved. That turns out not to be true, but we all nourish that idea.

The other field -- much less, of course, and probably, it must be said, less important -- was management. In both those fields I had some interest. And we had connections with Soviet counterparts. It was a cold, frosty day when you went to Moscow for meetings on innocent-sounding topics. But it was a very difficult time.

But all that put together meant that Jerry wanted to return to what he felt were vital matters. And I understood it. So he said no. And looking around, it wasn't easy to think of a chairman. I finished my time, Paul became [INAUDIBLE], so there was a several year period there. And I assured Paul that I would remain chairman for at least three years during his term.

And then we almost accidentally found somebody that the Corporation Committee felt, who was a member of the Corporation, that he would be an excellent chairman. And he served with distinction, although I never was sure that his heart was in it. He came from Berkley, came from the University of California. David Saxon is the man I'm talking about. And when he finished his years here, he went back to California. He never really lived here. He was, I always had the impression in lots of ways he was living out of a suitcase.

INTERVIEWER: One of -- so Gray became chairman after Saxon, and then Alex d'Arbeloff and Dana Mead. And they, like Saxon, were not administrators here at MIT. They in some capacity came from the outside and became chairman.

JOHNSON: They all had deep MIT roots. Saxon had three degrees from MIT. Paul had his electrical engineering degrees from here. And while Mead, interestingly enough, went to the Academy, West Point, as an undergraduate, and spent his appointed time in the military, during one of the leaves that that large organization arranges, he came to MIT and did his doctorate in economics.

Which is no mean feat. First of all, getting the time to do it. I don't know how he managed that, but he did. And then he was a member of the Corporation. As was d'Arbeloff for many years.

INTERVIEWER: I guess I want to rewind a little bit and talk about, your presidency was remembered so much for the campus unrest that was present at the time and how you dealt with it. But there were several other events that happened, or reforms that happened during your presidency. Among them -- so I wanted to ask, how aware were you of the impact that computing would have? Or, when the proposals would come across you, or you'd meet with faculty and electrical engineering, this idea of adding on computer science, or having a laboratory of computer science, or an artificial intelligence laboratory, or these -- did you realize the impact?

JOHNSON: Well, it was impossible not to realize it. These were big operations. You know, the Electrical Engineering Department, by far the largest single department. And the computer science, which began as an integral part of electrical engineering. The leadership there was constantly wondering, should they become separate from electrical engineering as its own department? There were individuals who made strong cases for that.

I got involved in that deeply. I was seen as, I believe, a little bit of a nonpartisan in the argument. And I enjoyed that.

The other field, which is very -- I really did get involved, is biology. I decided, with a lot of evidence, that biology was the coming field. And during those years -- we had been -- biology we had had, of course. It was a course. But it was -- let me call it, before microbiology. And microbiology changed the world of biology. And we saw that as a place to put a lot of support.

We had relatively few resources to really put into the game. We're all committed to what we're doing. Big things, important things. So to do that took some special effort. And great men who were there, like Frank Schmidt for example, were never quite sure for quite a while that microbiology was the way to do it. But he became a very avid, involved person in it.

But that was the second field that I felt that we could, should, and would stay primarily concerned with academics, despite the sturm and drang all around us. That we simply had to make some bets. And Wiesner -- and when I say I, and Rosenblith, all those people worked.

And then, literally on the dawn of my -- I was in office -- but you probably know this story. I mention it only because it's interesting. We were approached by the National Institutes of Health, its chief, who asked to see me. Came here from Washington. And literally, sitting in this room, said that the National Institutes were prepared to put major resources into having MIT start its own medical school.

That would be impossible today. But in '66, there was a minor turmoil going on. Did we have enough MDs? And these able bureaucrats thought that if a lead school like MIT became involved in a medical school, it would encourage medical education all over the country. So they offered us, offered me as a brand new president, to support first of all somewhere in the range between \$60 and \$70 million, maybe, for an initial subsidy to get things going. And then a promise of multimillion dollar research support for several years.

Those were, they were willing to put it on paper. I knew enough about Washington to know even things on paper sometimes drift away. But I was impressed by the strong feelings of this group. And one has to say that it made kind of a superficial sense. We had a lot of people on the faculty who were doing, from whatever their own academic seat was, collaborative work in fields that could be called medicine.

So we considered it. Gordon Brown, the dean of engineering, played a -- he had a group already convening on some issues of medical education, and I assigned him and his cohorts the idea of could, should it be the sixth school?

I think members of the Corporation who heard about this -- because we reported it to them -- thought it was an exciting idea. We're committed to service; that seemed to be a great idea. Teaching and research in a field that was vital.

To make a long story short, as you know, we said no. To everybody's surprise, I went down to Washington, told the head that we appreciated it, but we would not go ahead to form a school. However, we were prepared to extend our collaboration with our fellow sister institutions here in Cambridge, and also to reach out to others.

And it was at that time that Harvard came to us, Bob Ebert, the dean of the School, and said, we seek collaboration with MIT. We knew all about the school effort. But he said, we are strong in practice, the practice and theory of medicine. But we're weak in science and our collaboration with the School of Science at Harvard is not as close as we'd all like to make it. We think that collaboration with MIT might work better.

And out of it came a program that goes to this day. And you can't go anyplace in the country but now seeing dozens of really sparklers who were -- I had to put a couple of days in the MGH last year, and --

INTERVIEWER: This is the Whitaker College?

JOHNSON: Well, no. That's still separate. But this is the HST, Health Science and Technology Program. A collaboration. Harvard added 25 places to their medical school, and we produce MDs and PhDs in the field, to produce researchers of medicine.

Whitaker was our collaboration with engineering, and became more than that. But that idea was not aimed at producing MDs. It was a place to foster research, medical research. And fortunately, we had the Whitakers. And together with the Pew Foundation, we managed to raise the money almost overnight to build the buildings. Seems wonderful now. And Uncas Whitaker, and Helen Whitaker, his wife, were so pleased with the whole effect. And it's been extremely good.

We did other collaborative things, with Woods Hole, a major program there. And we'd always believed at MIT, or at least in recent years, that the disciplines are not separate and divided, each in its own slot, but that there were large overlaps of interest. And when I was president, we encouraged that process, and have continued it to this day.

When I say things like that, I want to make clear that my predecessor, Julius Stratton, had these same kind of ideas. We weren't turning over a completely new page. You turn over an emphasis, or, you know, you have to push something. And that's how that works.

INTERVIEWER: Some other reforms that you had implemented, were also at the undergraduate level. Among them were the decision to shift semesters, start an independent activities period, implement pass-fail, and start this Wellesley exchange. Maybe you can describe these -- were these collective decisions, reforms? Or were they each independent? Tell me about what was the background between these --

JOHNSON: Well, Wellesley was quite independent. We had begun a long term -- you know, when I became president, we had 14 women in the freshman class. We had all known that that made no sense at all, but if you can believe it, it is true that the excuse that we all relied on is that we don't have any dormitory space for women. And co-ed dorms weren't even envisioned in those days.

I was strongly for more women at MIT. I thought it would help our education. I thought it would make a contribution to the world of education. And my own undergraduate and graduate education had been in fields where women had substantial roles. I was convinced it was important, not just for the women involved, but for what it did for everybody.

But getting it started was difficult. One big step was made when we were able to persuade -- and Jim Killian played a major role in this, he was chairman. Jay Stratton was still involved; I became strongly involved -- to see Mrs. McCormick. Mrs. McCormick was a force of nature. A marvelous woman. I would rate her and Alfred Sloan, and then a long list of people, as being among those early MIT graduates who saw something that they could support and encourage. For Sloan, it's a different story.

But I had the pleasure, as Killian had, of meeting Ms. McCormick who lived over on Commonwealth Avenue. Still a very bright person, even though she was an old, old lady at that point. And she provided funds for the first tower. And that was not yet complete when I became president -- or just about at that time, it became complete. I was president when they introduced me to the people coming in.

And then we quickly added the second tower. And then the whole thing became moot, because dormitories became, in general, mixed. That was a wave of cultural change that happened in that period, along with so many other things. And you know the results. I think women are roughly 40 percent of the undergraduates. They're over 50 percent in total. And those half and half will soon be reached.

And the funny thing about it is the admissions people, who knew a lot about the interests of potential students, as well as current students, I said, what do you think -- and think carefully about it -- should be our goal, in terms of the admission to women? Will it amount to 25 percent? What will it amount to? Their guess was is it would be well under 25 percent at maximum. They didn't think there were that many women interested in science. Well, it shows how wrong people can be. But it also shows the limit that there is in foresight for cultural reasons at any time. I'm sure there are things like that right now.

But those programs you mentioned -- women, and then the faculty cohort of women, expanded at the same time. Although that still is well under 50 percent. It's growing, and you don't have to read Tech very long to find some comment or other about how we lag. That we certainly lag concurrently, the issue of race in student body, the numbers of people who are African Americans, who are Native Americans. All those, we always had a large number of people applying from Europe, and then increasingly from Asia. But Black Americans. I can tell you that in my teaching at the University of Chicago as a very young associate professor, I believe it's true that I cannot recall a single Black student in any of my classes. So it was not at MIT, it was all over.

INTERVIEWER: Was it due to an overt policy of segregation? Separate but equal?

JOHNSON: No, there was no overt policy. There were overt policies about numbers of foreign students. And in the '30s -- right, it's before my time. But there were policies that are, looking back -- I never confronted them at a place like Chicago -- that limited the number of Jewish students. That was a major scandal at Harvard I don't think that ever touched MIT.

How will that all work out? Well, we have worked very hard on the issue of African Americans in our student body. We have not been very successful, whether it's faculty or student body. It's a defect in preparation, most likely. Most of these students come from large metropolitan schools where the preparation is less than satisfactory, in my judgment.

We've worked on it in many ways. You probably know some of them. But I take the position we have to work harder. And we will. I believe America will solve this problem. But it's the largest problem for the nation, in my judgment, that we have. The problem of fully integrating, without regard to color, without regard to creed, the population. Of course it should affect them, the institutions of the country.

But it's true in France, too. And when I went to school in Glasgow, you looked in vain for an individual of color in any of the classes that I took. It's worldwide, as you know.

INTERVIEWER: Sure. Well let's go back, and I wanted to get a sense from you about what prompted the decision to shift the semesters earlier. To get exams before Christmas, to start IAP, implement pass-fail.

JOHNSON: Yeah. It had struck me as a professor that it was inefficient and awkward. You know, the old system was, the classes went -- let's just take the Christmas holidays, the long holiday. We gave everybody a vacation at Christmas time of two weeks. And that was presumably some kind of a study period. Classes finished before Christmas; then they came back post-Christmas for two or three weeks in January and took the finals.

It was a burden on the students. It was a burden on the faculty. But I felt most sensitive to the student complaints that I heard, at least. I didn't know quite what the solution was, but it was a thing that bothered a lot of students.

And the solution -- not perfect, but start the term a little earlier. Take it right up to the holidays. Finish all the exam period. And then what do we do with the month of January? We called it Independent Studies. It's called, I don't know what it's called now.

INTERVIEWER: Independent Activities Period.

JOHNSON: Independent Activities. And my feeling, and I said it to many students: if you feel like skiing, this is the time to do it. And I bet there are some who do it.

But students do all kinds of things during that time. And I think it's been great. And oddly enough, you know those were the years that the first energy crunch. And we were able to turn down, we were able to save energy in the month of January by not heating everything from dorm rooms to all the classrooms, although the Institute stayed open. And all the graduate students were strongly pressed to use it as a study period.

INTERVIEWER: Was it also in your term that the core curriculum was cut in half, as well as implementing pass-fail? Maybe you can explain those decisions.

JOHNSON: Pass-fail is still, it's been argued, still. But Ken Wadley, who was the dean of students, as we called it then. Dean for Students. And Wiesner. The deans, we discussed it a long time. But I would say I felt it was -- you know, we used to figure grades to the third decimal place. We had pass with high honors, we had pass with honors. It was a Jerry-built system that had served our predecessors well.

But I was aware that the entering students coming from all over the country, more than half of them valedictorians of their class, suddenly found after the first exam in the fall of their freshman year that they were below average. We couldn't do anything about that. [LAUGHTER] But we could see, and this medical department, when I questioned them said yes, there is evidence that pressure on students and their fear of failure, their pain at telling their parents that they came close to failing, and in some cases went home with D or F grades in their -- we didn't use those, but -- to their parents. Parents are still a fact of life in that freshman year, especially, and really all through.

But it seemed to me, and I had heard about the pass-fail proposition, that we could afford to do that during the freshman year. Give people a chance to get the ground underneath them. That's been disputed by many members of the faculty. It's been restudied at least twice in the major way. I think it still exists, though. In some fashion. A little bit different than we started it.

And I think it was good. I still think it was good. I've read, I can't tell you how many students who've either written or said, that saved my neck during the first year.

INTERVIEWER: And what of cutting the core curriculum in half? The students--

JOHNSON: Well, that seemed obvious. We had to do it. But that has a very minor connection with me. I was glad to support it and lead it, but other people devised that. I played no role in that, other than to speak for it. President presides over the faculty meetings, you know, here at this institution.

INTERVIEWER: Well, it's also in your term that you expanded the Academic Council beyond just the deans, you added -- and you also formalized that body, as well as the faculty. Tell me about what prompted those decisions to expand.

JOHNSON: The Institute was becoming more complex. When I became a dean in 1959, I joined the Academic Council automatically. There were the deans, the vice president for research, and the president presided. There were about six or seven of us around the table. Once in awhile the finance vice president came in. But most of the time, it was the Academic Council.

And that had its merit, but it was a narrow group. These were the barons in their fiefdoms. And they met once a week, every week, Tuesday for lunch. But during my term we did expand it to people who deserved a voice around that table, and whose views we ought to take into account.

It worked, I thought, surprisingly well. And again, the provost was much for it. And the deans, a little recalcitrant at first, but they became very positive about it, too.

INTERVIEWER: Now what entities, or what offices were added to the Academic Council during your time?

JOHNSON: Well, dean for students. Head of the libraries. The libraries were going through a gigantic revolution. And it seemed to me -- you know, we would do something about resources like that, and then have to have other meetings with the main people in the library. We got the head librarian involved. That was I wouldn't say the major role.

We got the finance people and the controller deeply involved. We had mysteries about the budget. I wanted to make it a transparent budget that was clear, understandable.

Let's see. We ended up with quite a few. I think they may have somebody from the alumni now on that council. We didn't do that in my time.

We also had what we call -- these titles are not exactly definitive anymore -- but we had a Faculty Council, which was the department heads. And they met just once a quarter. Four times a year. Those were great meetings. But all the department heads could see and size up their fellows. And we brought major issues, like curriculum. If we fought out the issues and defined them. Or pass-fail. You know, that's the place to deal with the department heads.

And we found out that the department heads in engineering -- there are several of them -- did not always agree. People, my old colleagues at Sloan, used to say, you've given part of our clout away in the Academic Council. You were one dean, that was equal, co-equal to the other dean. In the Faculty Council, you're one department head among others. Well, it didn't work that way. But I remember getting a nasty letter from one of my old colleagues saying, Howard, you gotta remember the politics of this kind of thing. I thought we always worked it in good fashion.

But we, the main thing behind this, by that way, is not structural. It's communication. I wanted a situation where we could inform the whole structure of the, the academic structure, the financial structure, all the staff structures, all at once. Or more or less all at once. So we were all prepared for the cataclysms of the future. I thought that was a good idea. It didn't always work, but it worked very, very well. Most of the time. Nothing works all the time.

I felt, I've always believed that if you can listen, and if you can communicate to others, the whole institution is stronger. And that, those are not just words. I really felt them strongly. And by and large, I believe it's the right path.

INTERVIEWER: Sure. I want to jump ahead again a little bit. You talked, you'd mentioned how much Compton, Bush, and Killian, respectively, had reformed the office of chairman, how much the president and the chairman had to work together. What specifically were the reforms, the changes that they made? You mentioned that one, the president's on the inside looking out, and the chairman's on the outside looking in that Vannevar Bush had mentioned. But what of this ambiguity between the responsibilities of the --

JOHNSON: The two posts? What it implies automatically is that the two posts have to be very close together. Obviously communicating, seeing, working together.

It's important that there be no room for split between those two posts. I think that happens in many organizations, and that is potentially a problem with our structure. And it's a problem all over the country, the chairman, the trustees and the faculty split. California's notable in those situations; the regents and the faculty are two different kinds of people.

We have never had that, despite a large body. The Corporation is fairly large. We're talking 80 people, I'm sure, probably more now. And it's, you've got to hold it, just like you got to hold the faculty together, if you're going to succeed as president, you have to hold the trustee body together. And so far as possible, have those two groups see eye to eye. That's not always possible.

But that is the possible hole in the ice for working together. You need it for everything in life, from fundraising to new structures, new directions. And by and large, MIT is regarded -- I don't want to mention Harvard again, but that was a source of their problems recently, a main source. We've never had that. I think we've been fortunate.

We did have it before World War I, when as I read it, it's pretty clear that Harvard wanted to annex the School of Engineering to Harvard. What that would leave as MIT, who are separately chartered from the 1860s, I'm not sure. But the then-president of MIT thought it wasn't a bad idea. The faculty rose up in mighty wrath and essentially gave him a vote of no confidence. And he left shortly after.

INTERVIEWER: When you became chairman, was there unfinished business you had as president that you wanted to continue as a chairmanship, or was there a different role you wanted to assume? What did you want to do with your new post?

JOHNSON: Well, I knew there was a new task coming up that needed major work. We hadn't had a -- we had to raise funds. It's difficult to imagine now in this period, but the Vietnam War period -- which, of course, ran through the '60s and into the '70s -- was my period. And I think it's generally felt that on many campuses, perhaps most campuses, there was a feeling among the general population that the colleges and universities have gone too far. And why should we support them? They're not fighting this war, they're criticizing it. And all of that.

So we needed to do more fundraising. And I was determined that I was going to have to lead that. So that was one direction I knew we had to do. It was unfinished business, but it hadn't even started. We had, the whole period of my time was devoted to that. And Wiesner put his oar in that, too. We all did. But we raised \$250 million. Which now seems a small amount, but those were real dollars. We went well over our goal.

And so, but I spent a lot of time raising money during that period of my chairmanship.

INTERVIEWER: Was this for buildings on campus, was this for just general endowment funds? What was the campaign for?

JOHNSON: Well, those two things. Our endowment was thinner than it should be.

We, the campaign of the early '60s had been devoted so much to brick and mortar that, apart from dormitories -- during my time as president we built some new dormitories, and then we continued to do that when I was chairman. The row down beyond [INAUDIBLE] building were all begun and put in starting about then. I've mentioned the McCormick Towers. Well we could see that didn't do the whole job. We still had much to do.

Mostly I think, I felt that we ought to -- I should spend a lot of time uniting the faculty and student body with our outside supporters. We did a lot of that. And then of course there were always things to do.

INTERVIEWER: We just have four more minutes on this tape. But I wanted to ask you, speaking of buildings and architecture. The buildings that went up in the '60s -- the Herman building over by Sloan, the Stratton Student Center, they all have this sort of Brutalist, concrete exterior structure.

JOHNSON: You're right.

INTERVIEWER: What was going through your mind as these proposals, or as these architects would come to you? What was that -- did those buildings look good then? Do they not look good to you now, anymore?

JOHNSON: Well, architecture is a subject by itself. And especially collegiate university architecture. The faculty by and large -- you can't generalize on any of these things -- but faculty, by and large, wants space. Efficiency. And Pei and Company, and Catalano, and other architects who were working in that period agreed with that.

And of course the brutalism of architecture, we weren't quite as far as many campuses went, but we were part of that movement, the architecture was. And I find the Dreyfus Building, today, the Landau Building, a little too stark. It was also entering the technology period of poured concrete.

The question I used to ask all the time, are the windows going to hold in a halfway attractive way, as well as a functional way? And second, is this stuff going to stain? How will it hold up with New England winters? Show me the panels of concrete that had endured for 25 years, not to mention 50 years, without major cleaning problems.

The architects -- it's interesting. I think, talk to somebody like I.M. Pei, who is still very much alive, who was MIT's architect for quite a period. He played a major role here. I must say, although I had some background, I felt that was an area -- I wanted to make sure the structures were sound. I wanted to make sure they were going to last, because a college campus is forever. And to tear down a building is a sign of a major mistake. I'm not talking about building 20 purposely temporary buildings.

And my own interest would have been limestone. I worked in the Sloan Building for six years, as a professor and as a dean. Most of it, I guess, as a dean, come to think of it, it's longer than that. And that building made of -- that building made of limestone has held up surprisingly well. Its decoration is terrible. It's a touch of neo architecture, you know, and has some of those signs. But it's an authentic building. It has character. True to its time. I think that's the best thing you can say for the concrete wave. True to its time.

INTERVIEWER: I wanted to move into the phase of reflecting, and talking about some issues broadly that MIT's faced in the last 25 years. Now, former Harvard president there, Bok, in his 2007 commencement speech, broadly asked several questions about what research universities, what their priorities should be. So I would like to ask you, having been a university president. And I'll go in an order that's somewhat out of the order that he went.

But among the questions he asked was how to make the most of the opportunities in science. He said, that most of the work is expensive, and that no university can hope anymore to excel in everything. It'll have to choose a field which best fits its capabilities. Now, President Vest said, when he came into office, 'that much -- whether at the federal government, or in funding in general -- that there's a lack of recognition about the requirements of maintaining a place like MIT. That MIT just doesn't have one or two spires of excellence; it's broadly excellent in many areas.' But there's not an understanding about how one should fund that, or support an organization like that. That it would be inappropriate to cut off the mountains to fill in the valleys.

What conflicts, or what difficulties did you face trying to support MIT financially, whether from the government, for raising funds? How should we go about ensuring excellence across a broad spectrum of areas -- whether it be the sciences, the humanities, engineering fields -- going forward? Or based on your experience, what difficulties does a university face in raising funds, or securing its programs?

JOHNSON: Well, for the research universities -- and you know, we're talking roughly 50 to 60 institutions who do most of the academic research in this country, and a smaller subset of those really do the major, innovative research, I would call. I think that as we look to the future, we should be expecting and strongly urging the federal government to have a greater hand in supporting. And it should, if we're going to continue to make progress on a broad front, as we do here at MIT, it's going to have to be substantial funding.

We know it pays off. And I think that any president of the United States must take it on himself or herself, the need for major research. We have to remember that we've lost, for a variety of reasons, the great corporate contributions to research. And I'm not talking about maintaining, what I call maintenance research. You know, keeping the current product line up and running. I'm talking about open-ended discovery research.

That, if you just look in my time, we've lost the strong sense of support in research from IBM, from the DuPont Company, in chemistry. Those two --

INTERVIEWER: Bell Labs.

JOHNSON: Certainly Bell Labs is a third. There probably are one or two others. Were absolutely critical. And they no longer exist. In the DuPont Company we still have research, but it's not of the scale that we used to have there. And that's true of IBM. I'm not saying they're not doing anything, but it's not the broad front, the breakthrough front that it was, let's say 40 years ago, 30 years ago. Even 20 years ago.

So where does that support have to come from? And this includes preparing young people to take innovative goals in research. All that has to be supported. And it's very difficult to raise that kind of money from private sources. We do a pretty good job here at MIT in getting individuals to support research.

But the volumes required here -- just look at the field of biology, which is going to be a major consumer of funds in this near period. The federal government is not in a position to be able to do this. And besides, they used to have a strong tie, in federal funding and research, to what could be called defense. While that still exists, it's not the major emphasis that it had, and could have, during the Cold War. Just isn't there.

I think that we're going to have to solve this problem. Bok mentioned some possibilities. Vest has mentioned some possibilities. And Wiesner and I certainly used to talk about that.

I think we will continue to press hard on the private source of funding. And that's important, even more than just for the physical sense of support. It gives us an independence. It allows us an experimental wing of research. So that has to be pressed, too.

And it's the -- most college presidents, university presidents, would agree that that takes up a major part of their time. You're constantly trying to raise money. That both diminishes the charm of the job and adds to the sense of fairness within an organization. Where some places, some parts of it find that an easy easier task than others. How do we raise money for mathematics research, for example, which we used to rely on Bell Labs for a surprising amount of that. And IBM, in some cases. We don't have that anymore. So I think we have to look at both those arms, private and public.

But of that, we know in MIT's case, and certainly in Harvard's case, that we will be successful. The money is there, and is forthcoming. People in this country are remarkably generous.

But it won't be enough. That's painful to say, but it simply won't be. And I think we've got to find a formula. An agreement. A system that's reexamined periodically, where major funding from its several legs -- health, each of them in its way -- gets support.

This takes talent. It takes individual effort. And even shorting that process a little really creates problems in a relatively short time. We have seen fields wither for lack of support. Leadership is one answer, but it isn't the only answer, and maybe it's not an adequate answer.

INTERVIEWER: And I wanted to also ask you about this idea of fields that wither. That there's, among the traditional physical sciences and traditional engineering disciplines, they're witnessing declining enrollments and such. But in other fields, these more interdisciplinary fields in nanotechnology, or information technology, or neuroscience, these emerging fields. Is it cause for concern that there is this diminishment in the traditional fields? Or is this emerging new fields, is that the sign of an ecology of ideas? It's it a cause for concern that we're losing the basic sciences?

JOHNSON: You know the answer to that is murky. I wish there were a clear cut answer. My own sense of it is that on the private side we can still find those individuals who are, perhaps because they've come to the field themselves, willing to support basic fields. Of physics, for example, or mathematics.

The fields like chemistry are bound to get support, because the companies are interested in them. And it's easy to see from my own experience that you can raise money there that you can't raise for physics or mathematics, for example. And yet if we don't get basic support for mathematics and physics, we're really in trouble. I think that's also basically true.

But the combination of fields is an old movement. It's been going on for a long time. And I think a constant invention of fields -- all you have to do is look at the MIT course list and you can see the invention. And some become new courses. I think that's bound to continue. You get a bright young person who has an idea that relates to a combination of fields and where do they run with it? And you've cited some examples here at MIT. They will press on. They will succeed.

I think one of the strengths of the U.S., by that way, is that we are flexible about source of funding. It's much easier for us than it is in Britain to raise money from private sources. That's certainly true in France. Not quite so true in Germany at the present time. The Germans seem to be more adept at that.

But it remains a problem. That's why I think the post of fundraising should be closer to the president than it used to be. And I think it's going that way in many -- You know, we have the vice president for Resource Development fairly close to the president. That's a good thing.

INTERVIEWER: Also on this topic of disciplines trying to find a niche, that Carl Compton mentioned that he never understood why the humanities at MIT always seem to be suffering from a crisis of identity. But at the same time I would want to ask you, how can a research university, a technological, an institute of technology, nurture and inspire the humanities? What role do the humanities and social sciences have at an institute of technology?

JOHNSON: Very large role. And you've seen some of that in your time here. I think there is no simple answer to that.

Because I think of our old friends of mine here, like John Burchard who was the first dean of the humanities, who had this marvelous man for all seasons kind of approach. But it wore thin in some cases. Because it became overused, in a way.

The historians want to prove themselves in the history field. The language people want to do all the pieces of humanity. And it's putting all those together that is the major problem for the young student. I think we leave now, by and large. We have a requirement that makes it easy and important for the student to choose concentrations in the humanities. I think, by and large, that works well.

It's always been interesting to me that students who begin in science and engineering, as they grow older -- when I meet people, let's say in their 60s, 70s, and 80s who are still bright and with it, the courses that meant so much to them were humanities courses. And why is that? Well, it's pretty easy to see that you develop the whole brain, the whole person. Those are the topics that demand answers that are beyond technology, in a certain sense.

They couldn't succeed as they have without technology. And there are lots of people who attest to that. That's our mainstream, and it makes us individualized from anybody else. But I think we have to give the student a breadth of study, a sense of reading, a sense of writing, that both communicates things that define humanity and human beings.

INTERVIEWER: Sure. Now, I always thought it was interesting that so many of the notable and esteemed faculty members, scientists and engineers at MIT, they always seem to be closet musicians and artists. Whether it's Jerry Wiesner, or Walter Rosenblith or Millie Dresselhaus. It's this fact that they're very accomplished --

JOHNSON: That's a good phrase. I'd never heard it before. Closet musicians, that's good.

INTERVIEWER: What is it about -- maybe you could speculate on why it is, what attracts these kind of great engineering minds, what interplay is there between this --

JOHNSON: You've left out one field: art. Of course. Well, you didn't leave it out; you could say it next.

But I spent many, many hours at our Museum of Fine Arts, and spent time with both people who are the eternal art historian - critic and those who produce the art. I have become convinced that art and music do nourish the soul, do nourish the sense of longing to become deeper, more aware, more interesting to themselves. More understanding.

And I think what do they -- what is it that attracts people to music? I've heard many great musicians, but I've heard, for every good one there've been many who couldn't play outside that closet. They were not very good. But they enjoyed it. They enjoyed it. And that's one level. And same is true of art. You find a refrigerator posting of an art piece to be all they're worth, in many ways.

But they -- it's important that people understand the first rate, though, in the arts. I think that is the critical thing for MIT to keep in mind. And we have to have a quality of art that is first rate. Don't ask me to define that. But I can look now at a painting and have an opinion of how good it is. I wasn't always able to do that.

But I started going to the Art Institute when I was a kid, because it attracted me in ways that were difficult for me to explain. Certainly difficult for me to explain to my teachers. I think we have to remember that at MIT.

That's why I was very much for -- we can't assemble a collection of art, but we can do music here at MIT, and we can do outdoor sculpture. And that's what we focused on in terms of new things. The campus, the buildings, but the trees and flowers and landscaping, I believe -- maybe wrongly -- is terribly important. And I worked hard on that here. We, the Great Court, as we called it then, was practically the only large piece of greenery in the whole campus. The place that's, the courtyard between Hayden and the Green Building and the dormitories and our old Main Building used to be, when I got here -- can you imagine? -- a gravel lot for parking.

Well, we've come a long way since then. And we're still getting sculpture. But I would emphasize that, whether in art or music, we have to aspire to the very best. Just like we do in our other fields.

INTERVIEWER: You were instrumental, along with Jerry Wiesner, in promoting this 1 percent rule, when you were budgeting the buildings. Tell me about the 1 percent rule, or something to that effect.

JOHNSON: We were moving into an era where we could see, we'd bought enough land. We spent a lot of money on land that'll last us 50 years, we thought. We didn't quite succeed in that, but we went a long way. But we knew that if we continued to be the factory on the Charles, it wouldn't be the full life that is important for students. And faculty. Faculty members enjoy working in places that have beauty, obviously. Maybe not all of them, but most of them.

And I, we wondered how we could press this. And we asked Dean Beluski, dean of architecture. He said, well, that's going to come from the architect for the buildings. And others are, but I remember his answer particularly. But I wanted to put a number on it. One percent sounds very small. But if you put that on a \$20 million building, it begins to show a little bit.

And so Jerry was easy to convince on that. He, it important, because he was going to -- you know, the provost, in a sense, is the chief communicator, the leader of the faculty. And it was important that he believed in it. He didn't need much persuading. I thought maybe 2 percent was more possible, but I became convinced we couldn't get it through. And maybe it wasn't good idea. We could do a great deal with 1 percent. And we have.

INTERVIEWER: Another one of President Bok's questions he asked was, how international should American higher education become? And it's a question that MIT often grapples with. Certainly in the early 1990s when MIT was -- or President Vest and MIT collectively were faced with this question of sponsoring or transferring technology abroad, or the question of how many international students occupy the ranks of graduate engineers and such. Certainly it raises, this question of internationalism versus national resource, MIT as a National Resource, raises its head when you get into questions about Defense Research, [INAUDIBLE] grants. How should MIT balance, or strike a balance between collaborating internationally, making a name as a world-class university, with being a resource to the nation?

JOHNSON: You can't escape the fundamental notion that MIT has become perhaps the best known international university, and certainly a leading one. And we will remain that. The world is one world, I think that's true. And as long as we -- in other words, I would press that front of being an international institution.

As a dean, I pushed the first Fellows in Africa Program in 1960. We sent young graduates of Sloan for two years, with their wives if they had them, to assignments in the newly independent countries of Africa. Those men and their wives filled special rolls from East Africa to the Sudan, as a matter of fact. But all through Africa the Cote d'Ivoire, Nigeria, and so on.

The purpose -- and then, just to make this short, the Institute took on a major -- and I wasn't involved in that. It was President Stratton who made the decision that we would help in Berlin, to get their technical institution, the great Technische Fachhochschule, going again. It was flat, you know, in the early '60s. And I was one of those chosen to go over and survey it. I was a dean. And they had the Free University, but everything else was pretty well flattened. Now that's a thriving institution; the Technische Universitat. But we did that.

INTERVIEWER: You also traveled to India.

JOHNSON: And then we travelled to India. I spent the better part of three summers in India. At the wrong time -- in the height of summer. But each time about six weeks, all over the country. And we have, as you know, a university at Kampur that's -- our purpose there was, so many Indian students were applying to come here, well I thought one thing was, if we they could have their own university, and we could support it, in a sense, it would be useful. And the Ford Foundation funded it, the State Department strongly pushed us. And I think that was -- I was a dean at that point. It's pressed on.

I think you have to make the case to yourself, the case of MIT, to the Academic Council, to the professors involved. Are they prepared to give this quality effort? You know, we stayed out of that business for a long time. We thought, we ought to concentrate on doing the best here, and bringing in students to study, and send them back to start their own university. It may be more efficient to help them there, or maybe do both.

I know we're doing a lot in places that I hope have been examined. I've spent a little time in Singapore. I think we're doing, Sloan School is doing a lot there. We're also all through the Far East. I like the idea of the collaboration we're doing in China. We did early on in Japan.

But through that all, what we have to make the case for being able to say, we are not short-changing MIT. We are a national institution. Unless we keep this place at the highest slot in the scale, we won't be doing our job. So I think that's important, but it's not -- I mean, the international effort is important, for obvious reasons. We are a player. We are a producer. And we are an educator on the international scene. But unless we stay strong at home, that could melt away.

I've known a Big Ten university that was asked to do so many things abroad that they kind of looked on it as summertime fun. And I think that's a very bad situation to get into. I don't think MIT will ever get into that situation.

INTERVIEWER: What role should MIT have in setting national policy, whether on education, or on science and technology policy broadly?

JOHNSON: Well, we do it not as -- we don't do that as a university. We do it through the leaders we train. I think they represent an American view.

I'm always so conscious, when I taught here, and then the 50 years I've more or less worked here, that such a large proportion of our faculty -- you know, roughly 1/3 most of the time. Sometimes it gets down to 25 percent -- were born outside the United States. And I think that concept is all of a piece. We are one world. And we perform as a kind of a beacon, in a way -- I hope that doesn't sound too corny, but I really do mean it -- of opportunity and confidence. And we should be encouraging both. Very difficult to do all the time.

And I think there should be what I call review periods on these things. If something isn't working, we ought to gently shut it down.

INTERVIEWER: How should MIT and other universities respond to increasing fundamentalism? This idea that, you know a majority of Americans don't believe that evolution is a scientific fact, or is not a truth at large. Or an increasing sense of anti-science, whether it's stem cells or these other controversies within science, and this increasing appeal of populism, or anti-intellectualism. What role should MIT or other universities have in combating this, or responding to it?

JOHNSON: I must say that my own view is that whole movement is nutty as a fruitcake. I don't apologize for that. I think that doesn't mean I'm saying that about religion. I think religion -- the major religions, religion in general -- plays a unique guiding force, a unique sense of aspiration, unique sense of hope for so many people. We know how powerful that is.

But anti-science is not part of that movement. And I think it's not the kind of thing that a university should stand on a stump and preach against. And we're becoming, we're becoming in a sense as partisan as those folks are. I can't believe that's going to last. I'm prepared to go to the fire on that one; I think to be anti-evolution may comfort some people. But if it ever really has majority characteristics -- and I know in some states it has that -- but it's not something that should be, that we should pretend doesn't exist. I think when I'm asked about things like that in a mixed group, I say I think it's hogwash. I don't say that; as a matter of fact, that's the first time I've used that. But it's simply not true. And while people have a -- if we stand for anything at this Institution -- I'll just speak for the way I view MIT -- it is truth. And we seek the truth. We seek the truth where it is. And if it's true, it can be demonstrated. Because somebody tells me, it doesn't diminish for me the beauty of the manger scene. It really doesn't. I was raised in that tradition. I suppose if I were raised a Muslim, I would have that same -- but I guess, I guess we're part of that struggle. And we might as well accept it. That we stand for truth. I believe that. I hope you do. If you don't, I'll understand.

INTERVIEWER: Vest commented, President Vest commented that to some extent, that criticisms of universities have resonated with the public, not only because of rising tuitions, or decreasing quality of undergraduate teaching across the board -- speaking generally -- but that maybe it's somehow an echo of the tumult from the 1960s and the 1970s.

JOHNSON: I believe that's true.

INTERVIEWER: How can universities, MIT among them, regain the trust of the public at large?

JOHNSON: A lot of us knew, I suppose every faculty member in his heart knew that was happening. But those of us who were in leadership roles were especially aware that it was a very real threat. And I knew it was going to take us a long time to get out of it. And in a sense, I talked -- I never served in Vietnam, obviously -- but I've talked to a lot of people who have. It was a large mistake, and it will take years to wear away. I believe it will; I think we're already showing signs. Maybe we have to wait for a generation.

I was the one who insisted -- it's kind of silly, maybe -- that we did put the names of the MIT graduates, or students, who had been killed in that war. It's a very small list. In the Main Lobby. You have to look for it, but they're there. I think those -- and at the time, I believed it would take a long time to get over it. I believe we are, though. I believe we are.

INTERVIEWER: We're getting to the home stretch here. So I'm going to ask really broad questions now, so take this as you will. But you mentioned the sui generis of MIT. What about MIT is unique? What is its essential core defining features? It's something about the nature of the students, that they hold tinkering and hacking and just messing to be unique? Is it something about the faculty and the research they produce? Is it something about the administration, and the freedom they lend to the students? What is it?

JOHNSON: I think it's the conceptual frame that unites us in a certain way. It's a kind of technological humanism, I think of it as. It's technology for a human purpose. And we try to have, try to grow the best faculty in the world that will teach those subjects.

And the students constantly amaze me. They're so far different than the MIT students of generations ago. In the '30s, when I was studying, I used to think of a friend of mine, Lyle Pahnke. He's long dead. Went to MIT. I envied him so. I can't recall envy as a major sin for me. I don't know what that says. But in Lyle Pahnke's case -- P- A- H- N- K- E, was his name -- went to MIT and became an electrical engineer. I was so aware that he was going to have an experience that would accomplish so many things.

It turns out that you can do a lot of things without an MIT education. But I believe in this place as much as I believe in any educational institution, as a place to foster thinking about complex -- not just problems, but issues. And there are other institutions that do that. But we do that in our way. And as I say, it's a kind of a techno-humanism that I like.

After I taught here for 10 years, and been involved -- in '65, oh I was a long-standing dean by then. But I knew I'd never leave the place, because it was congruent with my own sense of the need to accomplish, the need to contribute, in this frame that we talk about here, and to constantly question our progress. To constantly question whether we're doing it right.

INTERVIEWER: On that issue, progress, why haven't other schools been able to imitate MIT's success, or replicate it? Or should MIT be concerned about other universities closing the gap?

JOHNSON: Well, I hope they are. I hope they are. You may remember, Wiesner and I made a trip to Spain to speak at some big thing they were having. And we were surprised there to have a message from Juan Carlos, the king, asking to see us. Which we did, we went, met with him. And his question was your question. He said how? I'm prepared to follow any reasonable sense and spend any reasonable amount of money. How do I build an MIT in Spain?

We thought about it. And he asked us, don't give me an answer now. And we talked to him later. And we said, you can start, but you won't finish. We're not finished. I said, your Majesty, we have to tell you that MIT grows out of a soil that has nurtured people who want to succeed, and regard the other fellow as their equal. And you can't create that. This may be -- but you can go a long way. And if we could work it out, some of your students coming to us -- some do now. I think there were several.

And he listened to that. And he said, that is a wise answer. He said, we have separate cultures. He says, we're not like the Italians; we're not like the French. And we'll have to create this culture. But he said, I'm going to begin. He said, I'm going to begin. I don't know what progress he's made. But he's still in power.

But I think that what advice -- I used to get that in India. We have a pretty good university at Kampur. We have a good School of Management in Calcutta, their best, by far. But it's an Indian institution. Just as it would be the Spanish Institute of Technology. I think it would have -- it can't be like MIT. We're built out of a different history.

But you can be very good. And I think that's true. And that's -- you know, I thought, Chuck gets a triple A for the idea of the Open Course. I think that may be a start of something that will help a lot of people.

INTERVIEWER: On the OpenCourseWare, what is MIT's trajectory? What is it evolving into? What role do you see MIT playing in the future? You mentioned that MIT's never really stopped becoming MIT.

JOHNSON: No. We have to keep -- you know, I've thought about that question, and it's very difficult to plot that course. Because in a sense, we deal with history as we approach it. I do know that I believe the faculty recognizes quality performance. The big debate, that poor guy who has wanted tenure so bad and didn't get it. I've thought about that case. I think, I think it means is that we have to choose our faculty -- I've always thought we chose our faculty very carefully. I think we have to do more, and help them along the way. And then hold a very high standard, to make sure they know how much we depend on them. And their students really drive them.

And the students do. My best experiences here have been with students. I taught a course for two or three years after I left the chairmanship. I was still honorary chairman or something. But I limited the class to 20. And I learned a great deal. And they were good. They were really good. And they've done some things, individuals among them. They haven't had time to really establish a top record. But I believe they will.

It's -- that's an interesting last question. We must, we must continue. We haven't reached our zenith yet. We've got a lot of work to do. And at my age, I won't see much more of it. But that would be my -- we've got a brand new dean at Sloan, they tell me. I of course have not met him. He comes from a school that's a pretty good one. But he's going to drink from the fire hose the first year or so. I'm sure he'll survive it.

INTERVIEWER: This is a tangent, I guess, but MIT hacks. Do you have a favorite hack? Do you remember any one that stands out in particular?

JOHNSON: Yes. Oh yes, I do. I believe the MIT hack, as the students define it, is a great idea. I'm all for them. And I realize that we're constantly walking the tightrope of, 'will anybody get hurt?' And it's worth the risk. But that is the risk, and we must realize it's there.

But when I became president, they covered the dome with a big orange tarp of some kind. I love that one. I thought that was being inventive and clever. And how they did it, I don't know.

The other one that I really enjoyed was waking up one morning -- I tend to awaken early. And it must have been, well surely six o'clock isn't early. But I looked out my window over, living at a 100 Memorial Drive, in the penthouse at that time. And there on the dome was the police car.

And I immediately had a, almost as I looked at it, was the then chief of police of the campus patrol. He said, what the hell do you want me to do now? And I said, for the moment not a thing. He says, well, the owner of that restaurant -- I can't remember the name of it, but it's still there -- has threatened to sue us for -- And I said, don't worry about that. Just make sure that nobody gets hurt climbing up there. And give them a generous deadline to get them down. And they did, and it did it just right.

And I went to see that fellow. He was a swarthy guy. And he said, God damn it. We gotta get those, those kids stole something! I want them to make restitution! There are probably nicks on the -- they cost a lot! And I listened to all that tirade. And then I said, as nearly as I can tell, the main thing that happened is, people are admiring how they got up there, and congratulating the students for getting it up there. And then asking where they came from. And they mention your restaurant. And he stopped, and he said, I didn't think of that. And it turned out that he thought it was giving them so much good publicity that he didn't raise any problems at all. He just asked to get -- I don't know, I think there was just one, but as time goes on, people are saying there was a whole herd up there. But I don't think that's true. Interesting.

I don't know, I worry about them and admire them, both. I think our rule of not finding the culprit, even though mostly we know in time, as long as no one is hurt, and no one is made fun of, in a sense, you know, a butt of a joke in a nasty way. I think it shows spirit. Maybe I'm wrong.