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Minutes of the Regular Meeting of the Academic Council

Thursday, February 21, 2013

Susan Lozier (Chair of the Academic Council/Nicholas School for the Environment):

Good afternoon, everyone. If I can have your attention, I will start our meeting. Welcome to the February Council meeting – and the second Council Conversation, which will commence after the business portion of our meeting this afternoon.

Announcements

I have a few announcements before we begin our meeting. On behalf of the Duke faculty, I would like to offer congratulations to the following faculty members who have garnered distinction for themselves and for Duke:

Kam Leong, a James B. Duke Professor of Biomedical Engineering, has recently been elected to the National Academy of Engineering. With this appointment, Professor Leong becomes the fourth Duke member of the National Academy of Engineering, joining Professors Robert Calderbank, Earl Dowell, and Henry Petroski.

Patrick Charbonneau, who is a member of this Council, and he is an Assistant Professor of Chemistry and Physics, and Jianfeng Lu, an Assistant Professor of Mathematics, have been named Sloan Research Fellows by the Alfred P. Sloan Foundation. This two-year award recognizes young researchers for their

potential to make substantial contributions to their field. Congratulations to both Patrick and Jianfeng.

Finally, I would like to offer congratulations to two Duke alumni, Alessandra Colaianni and Jordan Goldstein, who are among the 39 U.S. recipients of the Gates Cambridge Scholarship, which is awarded by the Bill and Melinda Gates Foundation on the basis of academic merit, leadership and a commitment to improving the lives of others. This award covers the full cost of graduate study at Cambridge University. Alessandra graduated magna cum laude from Duke in 2007 with a degree in Biology and Philosophy and Jordan graduated magna cum laude from Duke in 2010 with a degree in Mechanical Engineering. And there's Patrick, just a little late, we just congratulated you on the Sloan Fellowship (laughter and applause).

Congratulations to all on these stellar accomplishments.

My next announcement concerns the loss of two members of our Duke community. Robert Richardson, former member of the Duke Board of Trustees and the Floyd Newman Professor of Physics at Cornell University died yesterday at his home in New York. Dr. Richardson earned his Ph.D. from Duke in 1966 and shared the 1996 Nobel Prize for Physics for his work in low-temperature

physics. He was the first to discover the property of superfluidity in helium-3 atoms, a breakthrough he made in 1972 after building upon his work as a graduate student here at Duke. Dr. Richardson was one of our honorary degree recipients just last May. Former Duke basketball star Phil Henderson died at his home on Sunday. Mr. Henderson made three NCAA Final Four appearances in his time at Duke from 1986 to 1990 and was the captain and leading scorer of that 1990 Final Four team. On behalf of the Duke faculty, I extend condolences to the Richardson and Henderson families for their losses.

Approval of Meeting Minutes

Our first item of business is to approve the January 17th meeting minutes.

(Approved by voice vote with no dissent).

Next, I want to take a few moments to alert all members to two important issues that will be coming to the Council later this spring:

For a number of years, Duke has conducted pre-employment background checks for new hires. In brief, these checks are limited to criminal convictions--not arrests or allegations--during the previous 7 years. Conviction information is not used as a reason to deny employment unless the conviction has occupational relevance, and the severity of the conviction is taken into consideration for the hiring decision. To date, new faculty hires have been exempt from this policy except those whose responsibilities include clinical work. The senior administration approached ECAC earlier this semester with a proposal to no longer provide this exemption. The decision is not ours to make. The Provost will make the decision as to whether new faculty hires will continue to be exempt from these background checks after gathering faculty

input and after receiving advice from the University Counsel, Pam Bernard, and the Vice President for Administration, Kyle Cavanaugh. In order to gather that faculty input, this issue will be on the agenda for our March meeting. Prior to that meeting, I have asked Kyle Cavanaugh to prepare a document that describes in more detail than my brief summary the criteria currently used by Duke's Human Resources for pre-employment background checks, and the proposed process for these background checks on potential faculty hires.

As with every meeting, I will alert the full Duke faculty of the agenda items for March and invite them to contribute their voice on this issue. Also, as with every meeting, you are invited to contribute your questions anonymously, if you so desire. After receiving feedback from the faculty, ECAC will make a recommendation to the Provost.

As for the next item of upcoming business this spring: Some of you in the room, by virtue of your membership on any number of faculty committees, have learned that the administration is considering changes to the employer contribution to 403(b) plans in order to meet current and anticipated financial challenges in the next few years. Some of you in the room, by virtue of the fact that news of this kind spreads faster than butter on a hot bun, have heard the same news. I want all members to understand that over the past few months the administration has been informing ECAC, UPC and APC about the University's current financial state, and while there have been suggestions that reductions in retirement contributions would alleviate some of the current and anticipated budgetary pressure on the Schools, no proposals have been put on the table. If a proposal to alter the faculty compensation package is received from the administration, it will first go to the Faculty Compensation Committee,

chaired by Professor Rochelle Schwartz-Bloom. After receiving input from this committee, ECAC will invite the administration to update the Academic Council on the University's financial health so as to provide the needed context for any proposed changes in total compensation. Your input on any proposed changes will be sought at that time. So please stay tuned.

Election of Next Academic Council Chair

The next item of business is the result of our recent election for the next Academic Council chair. 82% of Council members fulfilled their civic duty by participating in this election, the results of which have been verified by Professor Kathy Nightingale, chair of the Academic Council Elections Committee. Professor Joshua Socolar has been elected as the next Academic Council chair (applause). On behalf of this Council, I offer Joshua my warmest congratulations. I would also like to extend my thanks to Professor Tom Metzloff for his willingness to stand for election and, indeed, for all of his loyal service over these many years at Duke. Thank you to Tom as well (applause). Josh will assume his new post on July 1 of this year.

Neurology Proposal: Transition from Division to Department

We now turn to a vote on the proposal from the Neurology division within the School of Medicine to transition to a department of Neurology. The supporting materials from last month's meeting were posted again with today's agenda. Dr. Ted Pappas, Vice Dean for Medical Affairs, is here again today if there are any questions.

(Approved by voice vote with no dissent).

Update on Duke-Kunshan University from Provost Peter Lange

Turning to our next item, we are just doing great here (laughter): In September of 2011, at my first Council meeting as chair, I expressed concern that there was a rocket, called DKU, ready to be launched half a world away before we even knew whether rocket fuel was available. The recent news of another delay in the opening of DKU means different things to different people, but one thing it says for sure is that I am not much of a rocket scientist! The letter to faculty earlier this month from Provost Lange, Vice Provost for DKU and China Initiatives Nora Bynum and DKU Executive Vice Chancellor Mary Bullock, announcing the delay of the DKU opening until the fall of 2014 has provided some renewed concern about this initiative. Although I think it fair to say that the Chronicle article of February 8th provided more of that concern, with an assessment of the situation that differed not so much in facts, but in tone. ECAC has invited the Provost today to address some of the renewed concern by further explaining the cause for the delay and by discussing the financial and programmatic implications of this delay.

Because we have the Council Conversation scheduled today, I have asked the Provost to keep his remarks relatively short. He gave a full account to the Arts & Sciences Council last week and had a chance to talk more about the programmatic developments. If there are remaining questions today, the Provost has agreed to come back to another meeting to answer those questions. Provost Lange?

Peter Lange (Provost): Thank you for inviting me to do this. This is going to be a brief update and to answer questions which may have arisen from some of the recent articles

in the Chronicle. I think that Professor Lozier has correctly characterized some of the sources of the concerns. But that said, it is obviously incumbent on us, as we have tried to do consistently, to address them. I have only one contextual slide and then I'm going to go to the core questions. The contextual slide is just to give you a little update on what has happened in the last year. I think you know most of these things, but I think one of the noteworthy things is this increase in faculty engagement including a request for proposals in Arts & Sciences for courses which produced twenty course proposals for DKU. The beginnings of working at a broader curricular picture that would look at the links between the courses and that is what the liberal arts semester in China is intended to do. We are also now beginning to look more closely at how we can link some of these courses in Arts & Sciences to courses coming from the other undergraduate schools, and we also are in discussion about additional graduate programs. It is my guess that this is not what you are interested in (laughter). Let me go to the construction update. Any project that you do – whether it is on our Duke campus or elsewhere – needs to balance time, quality and money. The difficulty is compounded when you're doing something 12,000 miles away in another language and with another culture. That has added complications to the process and it is complicated further by the fact that we have this somewhat anomalous situation where somebody else is paying and doing the construction but we are setting the standards and determining what we want. Those have all been complexities that have contributed to the relationship that we have developed with Kunshan. I have to say in general, it has been a very good relationship but it was a relationship in which perhaps the leadership at Kunshan which could really drive the project had entrusted some aspects of the construction to people who turned out not to be doing it as well as

the leadership anticipated. Compared to other projects for the city of Kunshan, DKU is complicated. It is expensive and as I have said, we are a much more demanding client than many of the clients they would have in China. I will illustrate, if you ask, what some of the construction issues were.

Duke has consistently pressed for quality over time and money. Let me stress that again. We have consistently stressed quality over time and money (laughter). The implications have been that it has taken longer and we have had delays. We had a delay this time because beginning in October, and more into winter, it became evident to us that the construction in Kunshan was not proceeding at a quality level that we fully expected. Now, I want to stress as I stressed in the Arts & Sciences Council, this was not a question of the structural quality of the buildings – that is that it would fall down. It has never been an issue. We have full confidence in that. It had more to do with some of the internal construction elements. To give you just one example, I'm sorry I'm going to do the same one I did in Arts & Sciences Council, they decided to build the ductwork for air conditioning under the ceiling rather than above the ceiling and as I think you can understand that tends to lower the ceilings. The ceilings thereby were much lower than had been anticipated in the drawings. We required them to pull out that construction and redo it, which is what is happening now and which is one of the reasons where there has been a delay. Just to make it also clear, some of the delay is due to standards that we imposed that they resisted because of the cost. For instance, our architects insisted on a quality of stone – and by quality I mean a grain and color of stone – which was entirely to their liking but had to be imported. At a certain point Kunshan said, well, we have a stone which looks pretty similar and people are not going to be out there looking really closely and which we can get domestically.

There was a lot of back and forth about that and eventually we decided that in fact, their stone was perfectly adequate for the project. Those are the kinds of issues which have caused the delay.

Now, what are the implications of the delay? We do have more time for program development and for recruitment and we have some increased cost for construction oversight which will come from Duke Capital funds which I will detail in a moment. Let me just add, the last quote is from the Chairman of our Board, "we are not in a race to be the first but to be the best." This is a quote which is very much consistent with the more or less six-month delay over what we had anticipated. Just to remind you, with respect to facilities, Kunshan funds construction and provides facilities to DKU through a no-cost lease. These are the conditions which have always pertained to the project and as we drove up the cost by our quality standards, they have paid those costs. Duke has committed approximately eight million dollars to fund the master plan, to building design and construction oversight. That is a number we had and anticipated having when the project was going to conclude in August. Because oversight is somewhat extended, there will be some increase in this amount. We are currently negotiating with Kunshan, and with the construction people, about exactly what that amount would be, but I anticipate that it would be commensurate with the amount we have spent up until this time, reduced by the amount of time it is which is really about a six to eight month extension. Those funds do not come from funds which otherwise could be directed to academic programs. They come from funds that we have reserved for capital projects. That is a modest budget increase with respect to facilities. With respect to operations, the annual operating costs are jointly subsidized fifty-fifty between Kunshan and us as the campus programs develop. Our commitment had been estimated to be 38.4

million over seven years when we gave you a last full estimate which was in February 2012, and which was based as well on a Monte Carlo analysis of what we thought could go wrong on either side. The current estimate is 41 million over eight years, so that's a slight reduction in the annual cost. This is subject to ongoing refinement and risk analysis and to the development of clearer terms with regard to how many students will go, which programs we will have, and what the tuition will be that we can charge. All of these are built into the models, but we do not have 100% certainty available. So what does the overall picture look like? Here you can see on the left hand side, the budgeted numbers. In '11-'12 we expected the entire project in operations to cost 5.4 million dollars and Duke's share would then have been 2.7. Instead it cost, because of the delay, \$600,000 and we paid \$300,000. In '12-'13, those numbers are 7.8, 3.9 and then our anticipated cost for '12-'13 was 4 million dollars; we now expect it to be about 2 million dollars. So, you can see that so far we're running ahead. Now obviously over the full period, we still expect to spend what I told you, but we are not overspending because of the delay. If anything the current spending is reduced because of the delay.

Let me address some recent questions. The first question has been: we hear a lot about financial pressures. Professor Lozier mentioned some financial pressures today that we've been discussing in UPC, APC and all the various committees which we have and with ECAC and the question is, is DKU responsible for these pressures? The answer is no. The fundamental sources of those pressures are undergraduate financial aid and the need to realign SIP to bring it into balance, so we no longer have to use central reserves to support them. Now, I would remind you that the deficit in SIP that we are now trying to balance is due to the fact that we have been protecting the academic enterprise and the schools through the use of re-

serves from feeling the full effects of the downturn. We spent over the last five years 386 million dollars of SIP support for academic purposes and had we kept SIP fully in balance and not used reserves, we would've had to impose a substantial portion onto the schools, which would've created a real break after the downturn. We've benefitted enormously from making that bridge, but that bridge cannot continue. DKU accounts for about 10 million dollars of the 363 million dollars of planned SIP expenditures over the next five years. That's about 3% of the total. DKU spending through this year will be about 2.3 million dollars and has been included in the amount above. That's my update.

Questions

Prasad Kasibhatla (Nicholas School of the Environment): We seem to have a very robust construction monitoring program in place, which is great, but I was wondering if you could update us on the labor situation, how labor is being created and their wages?

Lange: So when we discussed the project with the Council earlier, this question arose and we have, to the degree we are able, monitored the company selected for construction to assure they're meeting fair labor practices. Not obviously paying US pay, but not exploiting the labor force there either. We continue to do that and Kunshan is well aware that we are concerned about that issue.

Lozier: Actually this came up in a recent discussion when Nora Bynum and Mary Bullock came to ECAC. We've asked Nora to look into some questions we have and it's going to take a couple of weeks. But, we will share that information with the Council because I know that was a concern from last year.

Garnett Kelsoe (Immunology): To anyone who has visited Shanghai, it's clear that the

Chinese have terrific architecture firms and building firms. We seem to have this issue of quality, which is not apparent in a lot of big Chinese cities. Has Kunshan chosen inappropriate builders or what is the heart of the issue here?

Lange: Let me just stress that you are seeing the final product in Shanghai and when you see the final product in Kunshan you'll also say it is a beautiful building. Nonetheless, I think that Kunshan has acknowledged that their oversight in detail of the project and perhaps their selection of some of the contractors was not as good as it could be. And in fact, they have replaced some of the contractors as a result after we raised the questions in a forceful way during the late fall. Does that answer your question? If you're saying, "is it harder to get the contractors of the quality you want in Kunshan rather than downtown Shanghai," that is probably the case.

Kelsoe: I guess the real question though is Kunshan adequate really to the job without extraordinary means of oversight?

Lange: We're providing the oversight we think we need in order to assure the quality that we want. And, we're confident after these discussions that we've had over the last few months that we will in fact get that quality with the oversight that we're putting in.

Kelsoe: Will the degree of necessary oversight be the oversight that we're offering now or the oversight that existed in the past?

Lange: We had not previously sent a person from Duke who works in FMD to oversee the project directly in Kunshan. As of the 1st of January, we did do that.

Kerry Haynie (Political Science): I think there was mention of the April application,

can you say a bit about where that is? What to anticipate?

Lange: So the way it works is that the Chinese have a two-step process for these joint ventures. The first step is where you tell them what you would like to do and they tell you whether they approve that if you did what you would like to do, it would be acceptable to them. That is the preparation agreement which we already have. The second phase is one in which they say well, we're looking now at whether you're really doing it or within sufficient sight of really doing it, so that we can have confidence that what you promised us you would do, will actually be done. That is the establishing procedure. That application will go in late March or April as I indicated on the chart and we anticipate that will take something on the order of 4-6 months to reach a, we expect, positive conclusion.

Haynie: We won't be doing anything until at the earliest the Fall of 2014, so what do we say in the documents that will give them the confidence we're doing what we said we will do?

Lange: Let me give you examples. When we did the preparation agreement, we said "we'll have courses of this kind in mind." Now we have an actual curriculum that we can offer, because we will have faculty who will actually have courses that faculty have proposed to do. We have approval of programs to actually do them there which we did not have before.

Jim Cox (Law School): Can you say something about the assumptions that went into preparing the eight year forward figure of the 41 million dollar subsidy going into these programs in terms of what expectations are about those figures for the total cost of the operation and what you would envision as

the total revenues coming in that would be covering them?

Lange: So, I can't do that out of my head, Jim. If that's a question that you'd like answered, I'm happy to come back and do that with my financial folks, but it would be inappropriate for me to do that out of my head, I could call other people who may know it better, but I don't think we have the time to do it. I'm not ducking the question, I can't do it out of my head.

Lozier: I will say though that Peter Lange and Jim Roberts have set up a meeting with John Payne, who is chair of UPC, and me, as chair of the Council, in March to go over those numbers. And so, for those Council members who were here last year, know that we looked at this in detail at the Monte Carlo analysis. What we're doing initially is looking at what update is required because of this delay and if that information is deemed pertinent, we are certainly happy to bring it forth to the Council.

I will say on this note as well that for my part, I guess I've always expected some construction delays because of the complexities involved in the project. I would have been more worried if there had been walk backs in enthusiasm or commitment and from what I see and what I understand from those really involved in the project, there has not been any walk back in that enthusiasm and commitment. So, I think at this point we can think that we are still moving forward with this DKU initiative.

Lange: I would actually say that from the standpoint of our Chinese partners, there are two developments that I would say come out of this. The first one is that we have learned that we can be more frank with them about our concerns than we perhaps felt in the past and they have learned the depth of our con-

cerns and are very concerned to assure that our concerns here do not in any way dampen the enthusiasm for the project. They have given us substantial assurances and changes in management structure to back those assurances.

Lozier: So much concern shared all around. No deficit of concern (laughter).

Jack Preiss, Professor Emeritus, Sociology and Anthropology, on Desegregating Duke's Undergraduate Body

And now, we're going to turn, with no disrespect to the Provost, to our featured item on the agenda which is the Council Conversation, but as preface to that Council Conversation it gives me a distinct privilege to introduce an honored guest. For those of you in attendance last month, you know that I shared information about the instrumental role that Professor Jack Preiss, then Duke Professor of Sociology and Anthropology and now Professor Emeritus, played in gathering faculty signatures in support of desegregating Duke's undergraduate body 50 years ago.

As I mentioned in January, our University archives contain a letter that Dr. Preiss wrote to the Duke faculty in May of 1962, noting that no concrete evidence of overall faculty expression on desegregation was on record. As such, Dr. Preiss encouraged faculty to sign a resolution recommending that undergraduates be admitted to Duke "without regard to race, creed or national origin."

Today as we gather to have a Council Conversation on teaching and learning at Duke, it is only appropriate that we welcome Dr. Preiss to our meeting because when we look back over 50 years of teaching and learning at Duke we cannot help but notice that one large difference between then and now is the

diversity of students that sit in our classrooms.

I have asked Jack to say a few words to this Council about the events leading up to the Trustees decision to desegregate in the summer of 1962 and to offer his impression of the impact of this change on Duke's campus. Jack Preiss (applause).

Jack Preiss (Professor Emeritus, Sociology and Anthropology): It is a real privilege for me to be here. I think my voice is still here to a great extent, but I'm not sure on a given day. I was really appreciative of being asked to talk with you at this august body which really did not exist 50 years ago. I think the fact that this is the 50th anniversary of not only desegregating the University but the fact that it's the 50th anniversary of this body and I don't think that has gotten much publicity, but I think it is almost as important as desegregation of the University from a racial standpoint. I think it's particularly fitting that I say a few words to you. My impulse is to talk a lot about a variety of issues, but in the absence of the time available, I'll just stick to a few, what I think are significant points, which resulted in the desegregation itself. As I've just said there was no faculty body existing at the time, in order to bring this about. Of course, the famous Brown-Board of Education legislation that occurred in 1954 and when I got here in 1959, it had no impact on the University whatsoever. A large group of the faculty and certainly of the administration was of the opinion that that legislation did not affect private universities, and that was the going sentiment around the University, particularly on the administration and the Board of Trustees. When I arrived here, sort of like a carpetbagger from the North, I came down from Michigan and my introduction to the South--of course I had my Air Force training down here but that was a very restricted kind of activity in Alabama and Georgia,

where I got my flight training--but I really didn't get to be in the South as it were until I got here in 1959. So the question was how I was going to fit in with my new post down here. I came as Associate Professor in Sociology and in Psychiatry that may come as a surprise and a shock to some of you. But, there was interdisciplinary work going on (laughter) in the University in spite of its segregated status and I'd done a lot of work in Social Psychology. I was interested in issues of mental health and there were some forward seeing people in the medical school, notably Bud Busse, who was chair of Psychiatry at the time, who said we really need to get other points of view in at least some of the medical departments. Psychiatry seemed to be the most available at the time, but there were others. People like Eugene Stead in Medicine, who were beginning to see things not in a regional sense, but in a national sense and even as you now are, looking in an international sense. So there were people who were restive about the state of the University at that time, and I just might mention that Paul Gross, some of you may know or remember or heard about who was, actually the chairman of Chemistry in those days but also became a major administrator in Allen Building because Allen Building was the source of all knowledge (laughter), whatever you want to call it (laughter), I don't know whether it is anymore (laughter). Anyway, the structure of the University basically was the administration was really a creature of the Board of Trustees and there was no faculty voice of any feature that I could determine as well as some of the others who were on the faculty at the time and who were coming in. So, the whole question of how to desegregate the University--and I use the term desegregation advisedly because we were not integrating the University, we were simply trying to remove the legal problem that Brown v. Board of Education had determined had to be met and that was our goal--to insti-

tute that at Duke. As I said, many on the faculty and certainly on the administration and the Board of Trustees wanted to keep it that way. So we didn't have an easy job. What we did basically in the committee that was just mentioned by Susan was to do it on an ad hoc basis. There were a small group of us who decided we would look into the whole desegregation situation in the whole University, not just the faculty, but the medical school as well. And we knew, we had hundreds, thousands of people who were not Caucasian working in the University, but they were doing a lot of the stuff that many of them still do but under a little different circumstances: clean the beds, the floors, washed the dishes and took care of all the kinds of service jobs that were necessary and still are. I remember being somewhat shocked at the fact that these folks were living not only in a different world but that their incomes and wages were pretty unbelievable--people were working here making from seventy five cents to a dollar an hour and even in those days it would be a little bit difficult to have any kind of a lifestyle with that type of income. Basically, I looked at it and what we did in 1960-1961 was not only to desegregate the student body and the faculty, but also all the people in the community, the outlying community who were attached to Duke University in an economic and job sense. I've always looked at that as the basic problem, not only the University itself which was at that time an insular body. I think you could say that you could look at it as a castle with a moat around it, which to an extent is true, although there are pieces of Duke University all over Durham now, particularly in the medical segment of the University. But then we really felt that we had to take that as a total picture and I've been doing that not only when I was on the faculty here, but since I left 25 years ago. I now work in the community. I was on the City Council for a while and have been active in political affairs. The Duke person who pre-

ceded me on the City Council was Robert Rankin from Political Science and that was our one entry into the affairs of the Durham community, which was also segregated in the same way the University was. So, I think it was more of a combination of things--the community as a whole and Duke University which I think you wouldn't be stretching the notion to far was more like a plantation. We didn't have designated slavery here but we had wage slavery and a few other manifestations of what a plantation system really was. That was the atmosphere in which some of us had chosen to be part of but weren't really aware of what we were getting into. I think the history of what we did was, more or less, by imposing on a system that was running according to its own devices in a satisfactory way. To be fair about it all, I don't think we could say that it was a prejudicial atmosphere and culture we had; it was simply the way things were. And the people who had their views about blacks in general and students in particular were simply reflecting the culture they were in. It wasn't like we were now say if you would talk about racial bias or racial prejudice; it was, I think to be fair to the people who had those views, the way they were brought up and you couldn't really say that they were immoral or anti-justice. This was simply the way society was constructed and that actually turned out to be the major barrier to get people to change their minds is that they had to change the way they looked at life, whether it was academic life, or residential life or any other kind of existence. I think that at the time many of us came to realize that we weren't battling what you now see happening in places, certainly in our society, is it prejudice? Is it bias? And so on, it was simply different in the ways people lived, who were brought up and had taken on those cultural and moral values. So this was a much tougher job to do than simply to castigate or condemn people as being racist. It was a different kind of rac-

ism but it had, to the people who lived that way a kind of that's how it is. And that's much harder to change then it is to simply try to get rid of prejudice or get rid of bias. You simply had to work your way through it and I think that was true in the community as a whole where I spent a lot of my time, even when I was on faculty. Fortunately, I had tenure when I got here, or things might've worked out a little differently but the resolution we drew up and sent to the Board of Trustees. People had to sign on the letters that I sent around and said: "Are you going to support this resolution that we're going to send the Board or not?" And we got a lot of people to sign it, which I think was quite an accomplishment in those days. So that's basically how it happened and I'm not saying that I'm telling you all this because I'm on any kind of an ego trip, which I'm not, but to simply tell you how it happened. You know a lot of folklore rose up about things like this--about who did what and so forth, but I think the faculty who signed on and worked for it, people like Taylor Cole, from many departments and the Medical School and Marcus Hobbs, who some of you may know and Paul Gross, who was later fired because he thought Duke ought to be a national university, whereas the President and Board of Trustees thought it should be a regional university. That was quite a big step in how Duke developed on several fronts. I don't want to take too much time here; I guess maybe I've overstayed my visit (laughter). I'd be glad to answer any questions or discuss it further if anyone of you would like to do so. Thank you very much (applause).

Lozier: Jack has been invited to join us for dinner this evening and I know a number of you in the room are invited to that dinner as well so I hope you will take his remarks as an opportunity to ask him questions during that dinner. I do want to tell you, Jack, that in honor of your contribution to this University

and particularly to the Duke faculty, I started to write a tribute to you to be read on this occasion. I must admit though that I lost steam after a few whereas-es and turned instead to a tribute that comes more easily to me. I have selected a poem from Billy Collins, U.S. Poet Laureate from 2001 to 2003, to read in your honor. First a short preface: Jack and I have met three times over the past two months and I have been struck during all of our conversations by his willingness, over many decades, to jump in and take action when he saw an injustice. Many others saw the same injustices, but not everyone jumped in. Many watched from the sidelines. Our conversations have made me wonder about my own willingness to jump in rather than observe, and those reflections reminded me of a poem I have long enjoyed. And now this poem, as a tribute to Jack:

FISHING ON THE SUSQUEHANNA IN JULY

~Billy Collins

I have never been fishing on the Susquehanna
or on any river for that matter
to be perfectly honest.

Not in July or any month
have I had the pleasure -- if it is a pleasure --
of fishing on the Susquehanna.

I am more likely to be found
in a quiet room like this one --
a painting of a woman on the wall,

a bowl of tangerines on the table --
trying to manufacture the sensation
of fishing on the Susquehanna.

There is little doubt
that others have been fishing
on the Susquehanna,

rowing upstream in a wooden boat,

sliding the oars under the water
then raising them to drip in the light.

But the nearest I have ever come to
fishing on the Susquehanna
was one afternoon in a museum in Philadelphia,

when I balanced a little egg of time
in front of a painting
in which that river curled around a bend

under a blue cloud-ruffled sky,
dense trees along the banks,
and a fellow with a red bandana

sitting in a small, green
flat-bottom boat
holding the thin whip of a pole.

That is something I am unlikely
ever to do, I remember
saying to myself and the person next to me.

Then I blinked and moved on
to other American scenes
of haystacks, water whitening over rocks,

even one of a brown hare
who seemed so wired with alertness
I imagined him springing right out of the
frame.

To Jack: Thank you for rowing upstream, for
getting wet, for making the effort.
You inspire those of us who are comfortable
observing from a distance to get our feet wet
as well. You inspire us to say something if we
see something and to do something if we say
something. To even row upstream if need be.
On behalf of all Duke faculty and on behalf of
this Council, I say: Thank you, Jack.

Second Council Conversation: Teaching and Learning at Duke

We now turn our attention to our second Council Conversation. As advertised, our conversation today is on Teaching & Learning at Duke. ECAC has invited four faculty members across the campus to lead this discussion. Allow me now to introduce these faculty members. I will start with one familiar face:

Peter Burian, Dean of the Humanities at Duke for the past year and Professor of Classical and Comparative Literatures and Theater Studies. Professor Burian's research has focused on Greek literature, particularly drama and the theory and practice of literary translation. He joined the Duke faculty in 1968, served as chair of this Council from 2000-2002, and just last year was a member of ECAC. Peter will serve as the moderator for this discussion.

Brenda Armstrong is Professor of Pediatrics, Associate Dean of Medical Education, and Dean of Admissions for the School of Medicine. She is also known for her role as President of the Afro-American Society at the time of the Allen Building takeover in 1969 as an undergraduate. During her tenure as Dean of Admissions, the Medical School has achieved unprecedented success in enrolling the most diverse classes among Duke's peer institutions, with total enrollment of women, total minorities, and under-represented minorities at 50%, 50%, and 25%, respectively. She joined Duke's faculty in 1980.

Ian Baucom, Professor of English and Director of the Franklin Humanities Institute. Prior to assuming the post of Director of the Franklin Humanities Institute, Professor Baucom served as chair of the English department for three years. His research focuses on twentieth century British Literature and Cul-

ture, Postcolonial and Cultural studies, and African and Black Atlantic literatures. He joined Duke in 1997.

Mohamed Noor, Earl D. McLean Professor in Biology. Professor Noor's research is in evolution, genetics and genomics with a focus on understanding the processes that cause the evolution of barriers to gene exchange between diverging species. He joined Duke in 2005 and most recently has been teaching Introduction to Genetics and Evolution in the Coursera platform as part of Duke's on-line initiative. Teaching to rave reviews, I might add.

I'd like to invite Peter Burian to now moderate. We are getting started a little late and normally I would convene at 5:00 but today we'll plan to finish at ten after five, so I will ask for your patience as we go through this Council Conversation.

Peter Burian (Dean of the Humanities/ Classical & Comparative Literatures/ Theater Studies): Thank you, Susan. Here we are: a couple of children of the 60s which was a fabulous decade (laughter) as Brenda and I know and two people who were hardly alive then.

Ian Baucom(English/Franklin Institute Director): I'm a child of the 60s (laughter).

Burian: You mean a baby of the 60s (laughter). That's different. I'm glad there's this range of ages and interests and I want to thank Susan very much for conceiving and putting together these conversations. What I think all of us here hope is that this is just the beginning of ongoing conversations about topics of deep and lasting interest to all of us as faculty members at Duke. I want to thank my colleagues and friends for being a part of this. I just will say a few brief words of introduction and ask one preliminary question

and then we'll open the floor and I hope that the rest of the afternoon will go on as a real conversation, though I've got a couple of other questions prepared in case the discussion should happen to lag.

From the days of Plato's academies, at the very least, teachers have reflected and worried about what to teach and how to teach. At Duke, recently that discussion is centered around buzzwords such as "globalization," "vertical integration," "online education and MOOCs," "flipped classrooms" and so on but these are just small parts of a much larger question. How to summarize it, I can't obviously, but a big issue that lurked behind all of this might be phrased in questions like: "What do our students want from their college education?", "What do we see as the goals of our pedagogy and our mentorship?", "How closely are these sets of expectations aligned?", "What's it good for?", and even, "Is it worth what it costs?" Now, these are big questions and I'm not going to try to turn these over to our wonderful and brilliant colleagues as if they could just give us easy solutions. I'm going to begin with a somewhat elaborate question about one facet of this that I think is on all of our minds and that's about the effect of technology on education today. Do we need to rethink our whole approach to pedagogy in light of new technologies? A few examples come to mind. How will online course media change the classroom experience? Will the availability of high-quality educational materials online exalt or devalue the campus experience? Will the new media reinforce the idea of education as a consumer good in which value for money in a competitive marketplace becomes the driver of our offerings, for example through greater focus on teaching and learning design to prepare undergraduate students for the workplace? Might these technologies instead foster fuller, freer discussions and a heightened sense of intellectual community around those discussions? My distinguished colleagues

have had a look at these questions in advance and I have asked each of them to provide their own answers as a way of beginning the discussion. Brenda, may I begin with you.

Brenda Armstrong (School of Medicine): I come at this from a very, very different perspective simply because I have a sense of education for young people as being more than just what they get in the classroom. It is the education, by example in many cases, of how you integrate into a community, how you transfer to a community of learners a set of values for education and any number of other things. How do you communicate to those very communities the notion of leadership and model it also for those who are coming behind? In particular, for me, looking at people who will take care of us all, it means mastery of certain scientific principles and the ability to apply them and even more so in the context of a team of people who will help to drive healthcare. But, it also has to do with how you create in people who will apply the science, the humanism, that is necessary to develop relationships which will alter behavior in the face of terrible outcomes, alter behavior for prevention, which takes a set of skills not taught by a classroom or by a textbook but largely taught from the communities from which these folks come. I had the best education possible as an undergraduate here because I was thrown into Duke at a crossroads and I had examples of how one parlays brilliance with leadership and the modeling of those sorts of behaviors. That was the education that I got. It wasn't just that I took a bunch of science courses, and took some tests. I didn't have the technology that I have now. I feel the technology is complementary, but it is not what drives the whole education of the folks that we want to put out into the workforce. Many of them going out into the workforce are absolutely dysfunctional and we have let them become dysfunctional in the name of grades and stand-

ardized tests. As a group of people who control who can get there, we have not defined the total picture and then incorporated it and modeled it in the way that we “teach.” My job, even though you all think that we’re looking for grades and test scores, is to find that whole person and then to provide an environment where that humanism that is absolutely necessary to work in larger corporations, to work down on the ground with small groups of people, to influence behaviors that change the way that we go about the work of being human beings and the work of whatever our jobs are. I have to find those and in order to find those, there are two things that are necessary. In this context, there is an institutional culture that is absolutely necessary to define both pieces of that and value it. The second thing that is necessary from my standpoint is giving opportunity for growth and stumbling for people who are trying to find their way. The stumbling and the growth and finding their way absolutely has to do with difference, the appreciation of difference. The respect for difference and the way we learn from each other because of difference. That education that you’re talking about is not just in a classroom. It involves a bulk of work that is done by individuals in different contexts other than traditionally having someone stand up in front of a classroom lecturing, or someone creating things in the classroom. There’s that other piece and without it we are charging too much for an inadequate education.

Baucom: First of all, to hear anyone from the Medical School talk about the importance of humanism is always a delight to the ears of someone who directs a Humanities Institute (laughter). But one of the things that is characteristic of teaching at Duke, is that those are unusual moments of intersection. First thing I want to say, in addition to thanking Peter and Susan and the Council for having us here, is that it strikes me as instructive that

given the opportunity to identify three questions for these Council Conversations at one of the world’s leading universities and an elite research university, that one of the questions that Susan and her colleagues decided that we should put into the conversation with one another is a question about teaching. I think there are two things I would imagine that would help account for that. One is sort of a long-term concern for teaching at the University. The second is a very recent set of conversations in the public sphere that in some ways are driven by digital revolutions in forms of pedagogy. There’s a kind of topicality about this and it is inescapable within the very recent past that we have. If you measure the lifespan of universities according to various single eras, the era of the MOOC is 12 - 15 months old but it is an era that seems to have had an intensifying power on conversations across the nation that we need to pay attention to. The third thing that I would point to is it strikes me that, as we prepared for these conversations we chatted about this a bit, part of the evolution of the life of a truly elite global university is the moment in which its consolidation of that standing in the world is one that does not as exclusively foreground research to the exclusion of teaching but understands the ways which being an elite research university allows us to think about new forms of pedagogy. I have been struck over the era, longer than the era of the MOOC, over the last five, eight, ten years at how seriously Duke has been thinking about innovative forms of pedagogy from the FOCUS program that was here when I arrived fifteen years ago, through the emergence of DukeEngage, as well as through the Duke Immerse program to the absolutely fantastic Bass Connections project that it just launched. I think it’s part of a larger conversation at Duke that is not driven by the digital, even though that is the first question that you’ve asked us to think about. I just wanted to note that.

On the digital and the effects on pedagogy of contemporary evolutions in computational technologies, data and digital media forms, I will try to do this quickly. I have three broadly affirmative answers and three concerns to register. They are affirmative in response to the spirit of Peter's question, if not the detail, because as a Socratic classicist you'll note that every question had its counter posed answers. The question was, do we need to rethink, and then a set of qualifiers. It strikes me that there are three. The first is the fundamental pedagogical enterprise at the Medical School and main campus here in Durham and across the nine schools of the University and the seven institutes and the emerging initiatives. At that domain, I think the question is not so much a "should" question: should we transform? Should we change? But more simply an "are" question. Are we organic? Is it emerging? Mohammed knows far more about this because of the work of his MOOC, because of his flipped classroom, but I don't know colleagues who are not in some ways rethinking class from minimal steps like introducing online fora for discussion to supplement lectures and seminars, to the complete step of flipping the lectures before so that the time during the lectures is discussion time, to bringing in archives or big data into the class via live screens in the classroom. I think we're simply doing that and my sense is that we don't need to worry too much about should we. It is part of the relationship between the business of education and the technologies of communication that surround us. The places where it strikes me that there is a "should" question--question of choice--have to do with two other arenas of university life in which we see this unfolding. One has to do with the steps of institutional partnerships that a university like Duke or Duke specifically can establish between itself and other educational institutions. Should we think about a new network of relationships that is fundamentally medi-

ated through a digital classroom? I'm thinking about something like the 2Tor or online semester program. Should we do that? And if so, why should we? My answer is we should and most broadly that because it is consistent with the cosmopolitan ethos of the university. To the same extent to which while our fiercest rival is UNC down the road, we have for decades shared classes and the opportunity for students from UNC to take Duke courses and the opportunities for Duke students to take UNC courses because we understand that our colleagues at UNC have perspectives to offer that may not be offered by our faculty here. It doesn't put us into competition with our colleagues there, but increases the cosmopolitan perspective of the educational experience for our students. I think expanding that across these networks is only to the good. One of the most innovative, and I think most contentious or controversial issue, is the massive open online courses and Duke's relationship with Coursera, and I believe, Peter, that we might have a relationship with Udacity as well but I can't remember where we are with Udacity. My answer again is broadly affirmative and it is because there is an underlying value to what MOOCs can offer. It has to do with the democratization of education, and I think that of all of the concerns that are out there I find that to be radically compelling. I had a Road to Emmaus moment when I heard Daphne Koller talk earlier this year in the Provost's Lecture Series. I had not considered what it meant for a university like Duke to be reaching hundreds of thousands or millions of students who could not afford to take a course here. There are many questions I think that are to be raised. It is deeply compelling in terms of the civic purpose of the university and our capacity to be an educational institution for the world. I would defend and advocate for our involvement on those terms. The three quick concerns: one is specific to the Humanities. My sense is one of the things that will happen

with MOOCs and things like Coursera is that there is a new domain that is emerging for the classification of what counts as significant knowledge. In the shortest sense, if you don't have a MOOC, does your discipline matter (laughter)? If there's not a MOOC on Petrar- chan lyric, does Petrarch matter? If there's not a Spencer MOOC, does Spencer matter? Now, there are other places where this is ad- judicated, but I do think this will be an in- creasingly important place that is pointed to - does knowledge matter? On the whole, my sense is that MOOCs have not been places that my colleagues in the Humanities have rushed to enter in. There's quite the small number of Humanities courses. For those of us in the Humanities, I think we need to take this question seriously, holding on to what we understand to be specific about our inter- pretive and pedagogical methods. But, I think that we need to engage this field. I also think that there is an amazing opportunity for Hu- manities colleagues at Duke to be leading dis- cussions. The other two concerns. It's a broader concern for the University itself. I think that we need to be very careful about distinguishing between a course and an edu- cation or a series of courses and an educa- tion. Universities don't just offer courses; they have a curriculum. They have a curricu- lum that is informed at a place like Duke by a long tradition of thinking about the Liberal Arts and by thinking about the interdiscipli- narity where the education is about bringing those together and I think we could fight for the significance or our convening signifi- cance. The last thing I have to say is that the kind of horizontal expansions that these make possible are really just one part of the dramatic story of new possibility; the other being experiments in vertical integration and team-based collaborative practice form ped- agogy. Again, I just want to stress how excit- ing it is in thinking about those things as a teacher at Duke to be surrounded by oppor- tunities like Duke Immerse, Bass Connections

and how inspired I have been by the work of colleagues that have done it at the Human- ities Institute through our laboratory pro- grams.

Mohamed Noor (Biology): Hard to follow on that. That was an amazing response. Actu- ally, I agree with everything that was said. I should preface right off the bat that I'm cer- tainly no expert in pedagogy. I'm just the guy who ran into the dark cave first and hap- pened to get some of the first arrows there. I'll just say a little bit about my experience ra- ther than saying what we should or should not do. First question that you posed which is a great question was "do we have to respond to these things?" The short answer is, of course, no we don't have to. Up until 2010 I taught on a whiteboard just like this. I didn't use Powerpoint. I just walked up there and did the class. Reviews were fine. Students learned the material and they went on. This comes back to the question you are asking about: the "should." Was that the optimal way to do it? Could we improve upon what we are doing? I think the answer is we can. We can leverage all these technologies. We can lever- age online classes both for, as Ian was saying, the democratization of education around the world but also more fundamentally, for im- proving the classroom experience here at Duke. I think every single point you hit was exactly what I wanted to say. I agree with all of those. What you were saying about Daphne Koller's talk for example and the response from online courses--that is exactly what I have seen with my online course. Last semes- ter, I had 30,000 students. This semester I have about 25,000 students. The level of ap- preciation from these people around the world is something that was unfamiliar to me as an educator. We see Duke students and they appreciate what we do, but they kind of expect it too. It's not something that we are doing beyond what they think is normal. We had a high school student from El Salvador. I

got to meet a handful of them. If you guys want to watch, there is a Youtube video if you just Google it you can find it where I got to meet a couple of these people. There's a high school student in El Salvador, and she's talking about how she really doesn't like her biology classes and now "wow, this is amazing - I'm actually getting something from this elite university telling me about advances in genetics." I never could have seen this. There was a train driver from Sheffield, New England who was on there just talking about how wonderful it is to be able to learn this, and how he loves evolution. He never had a college degree--he didn't have enough money to do it but hey, he can actually learn from people who are identified by universities as world experts. The outpouring of incredible support and enthusiasm not just for the course but also directly for Duke University. This is something very important in the context of all of us that they're saying whoa, this elite university invested a ton of money to provide this to everybody for free. That's just a really, really good thing for the university and for its image across the world. Several alumni also were on there as well. They said this is really nice. Or people in the local area saying, I used to think of Duke as the elite place on the hill but now I have a better impression than before. So that's one aspect.

In terms of in the classroom, you mentioned--I am doing a flipped class. I'm doing that right now this semester, and I know many of you have done this as well so please feel free to add in some of your experience. Right now for my Genetics class, I'm allowing students to watch the videos through Coursera along with the many online students and some of them actually interact. Some of the Duke students interact with these people from around the world. Some of them comment to me "hey, I posted this thing and this Doctor in Bangalore replied back right away with the answer." That's great (laughter). What I have noticed in doing this

flipped class is when I am doing the assessments or when I am just talking to the students, the level of questions this semester is just absolutely dramatically higher than it was in previous semesters. Instead of spending the class period just with this basic conveyance of information that, frankly a lot of it they could just find on their own in books or in the web, now we're spending a lot of time doing much more advanced problems with the assumption they already have the basics in mind. The class experience becomes much more reinforcement rather than primary conveyance. I have a better feeling-- something that I remember Dan has said as well--for what the students know because I spend the entire class period actually interacting with them rather than talking at them. Their level of understanding as far as I can tell is dramatically improved. We just had the first test last week. We had a midterm average that was higher than I had ever seen in my entire career. I thought maybe that I messed up, so actually for the make-up test I completely threw it away and made a separate test. Again, just as high as the first test. To me, of course this is one experience in one class, maybe this class is much better in the sciences than in some other areas or things that are heavily quantitative. From my experience, I think there is a lot we can do at least in a large subset of the university by implementing these technologies, these advances, and using it both for the benefit of our students here and for the benefit of the image of Duke University. One thing that has come up several times when I have spoken, especially with alumni is: are you giving away for free what I spent \$40,000 a year for? (laughter). That's a fair question. The answer is absolutely not. This comes back to what you were saying about the difference between a course and an education. What the online students are getting is the analogy I have used several times: what they are getting is like the light version of the app. They're getting this very

basic thing. It's not as good as the overall experience. They're getting a very basic piece. They don't get the reinforcements in the classroom. They don't have the laboratory sections and most important, they don't have direct interactions with the professors. These people will come up and will talk and that's something that I didn't actually have the opportunity to do in my classroom before. I didn't have the opportunity to really talk to people in the class even with a large introductory class. That's a big part of where they can really do their learning. Absolutely, there's a huge advantage over the free online version for the people who are paying the \$40,000+ per year. I'll leave it at that. I agree with everything else you said.

Burian: Thanks to all three of you. That is a great way to open the discussion. We had some very different perspectives and some very interesting suggestions and I just would like to see how the faculty would like to add, challenge, support, or respond.

Nan Jokerst (Electrical & Computer Engineering/ECAC): One of the things I worry about a little bit from the student perspective is overload. While the classes are certainly useful for interacting with professors and getting our knowledge level up, if they have to study the course information ahead of time and do the homework, I just worry that if the students are taking four or five courses that they're then going to be overwhelmed and will this threaten the Duke experience?

Noor: That is a great question. Actually, I just had my mid-semester reviews and universally they all said it was definitely more work than the regular classroom. I completely agree with you. What I did was to moderate it for my class in particular. So last year it was an hour and 15 minutes per day, I reduced it to 50 minutes so that there is a little bit less time. I also made all the readings that used to

be assigned to them optional. You're exactly right in implementing this kind of thing, if somebody wants to do that, you can't just add it on top. You can't just double the workload for students. Like you said, it's unsustainable especially for students who are doing four classes or overloads. I completely agree.

Daniele Armaleo (Biology): I would like to be a grouch with respect (laughter). I don't know if anybody here reads *The New York Times* but a couple of days ago there was an editorial on online learning which among other things basically pointed out that online learning is good for those people that do it but not good for the vast majority of people that drop off or don't partake in the way the system works. To me, that exemplifies a danger in this kind of teaching which goes back to the course versus the education issue. The course is part of the education, so we can't immediately separate the two things. There are different pressures that push for online learning. One is the pressure from industry, another is the pressure from universities, which for some reason need to have global exposure but those pressures have nothing to do necessarily with teaching. It's good for the University to have global exposure, to be appreciated in Bangladesh but does that really matter for teaching the students here? For instance, an example that will probably be clear to everybody in education is the incredible damage that multiple choice testing has done to education in general. It was introduced technically because it was very easy to grade things. That was the only reason by which multiple choice testing has basically spread like a virus across all levels of education, and in my opinion has damaged it dramatically. I'm not trying to say online techniques are evil or damaging by any means. I would just like to say that we need to be conscious of the fact that there are pressures that push these techniques on educational institutions, not just universities and those

pressures have nothing, whatsoever to do with education itself. And we have to keep it clear in our heads and be able to dissect where they're useful and where they are not.

Armstrong: Interestingly enough, in medicine over the last about five to six years there is gradually that realization that rote memorization really has no place in driving how we identify people who are ready to take on careers in health care. So much so, that the Association of American Medical Colleges and Howard Hughes have brought together a group of people who have redefined the fundamental requirements for broadly based education, for competency based education for future physicians, both in the sciences as well as in the social sciences. To many people that's almost heresy that all of a sudden we're just not talking about mastery of application of scientific principles but we're also talking about it in the context of knowing something about the biologic basis of behavior and the social determinance of healthcare, which means a fundamental shift in the way preparation for careers in medicine will actually occur. The AAMC has followed it up by putting together a new exam that will not be conquered by rote memorization, but instead is an application where the students have to apply the knowledge that they have learned--a huge shift, in fact so much of a shift that there is going to be a time warp between the freshman in 2012 and the test in 2015. It has also required rethinking of the way in which those competencies roll out in undergraduate education, so much so that those of us in the Medical School have said "those are discussions about what you need to be able to do that have to be done on undergraduate campuses." We are not telling students anymore that they have to have this course, and this course and this course. In fact up in the medical school, we have changed the word "prerequisites" to "expectations," and have de-

finied what we expect of them in much more broadly based terms.

Baucom: Again, I'm not in complete disagreement with you, even though I think this is a good thing. I'm an English professor and it's an amazing place to be a professor because I taught a first year undergraduate seminar in the fall. I had 15 students and we read six novels and that's what we did. We sat and we read and we discussed and they wrote lots of essays and they wrote drafts and I loved that, it's amazing. It's what I love doing. And I wonder, could I do that online? There's a fantastic young colleague in the Thompson Writing Program here who just won an award from the Gates Foundation and if someone can remind me of her name please do.

Speaker: Denise Comer.

Baucom: Thank you--to take up that challenge, which is can you teach writing online, can you teach that intense labor of interpretation. So those questions are vital. My sense is, if we were simply to say "well we can't figure out how to do that kind of work online, so we'll stop doing that kind of work," that would be an intellectual surrender, but I think we should have the capacity to say "here's a new medium, and how do we make the medium pursue what we want to do." Two other quick things, there was the Thomson Freedman editorial a couple weeks ago in *The New York Times* that the MOOCs are going to save everything, and I disagree with that because what they miss among other things is that universities are also still centers for research and we have not reached the sum of all human knowledge and we do not just exist to disseminate knowledge in its final form. One final thing on the reputational thing, if it's purely for self-interest, one would have some ethical concerns. But I think if we increase Duke's global reputation in such a

way that a student in A, B, C place thinks that they might actually benefit from coming to Duke, who would not have thought about Duke anymore, we will globalize and make more cosmopolitan our own experiences as a consequence of that, and that to me is to the good, if that's part of our goal, not just to extend reputation. But the extension of reputation of something that we believe in and we believe students also believe in--then I feel highly comfortable with that.

Burian: In what way are watching an online lecture, and then coming to class and discussing, which are called a flip classroom, any different from reading a novel and coming to class and discussing it, which we would call a seminar? So it's not self-evident that the technology is different, but the purpose and the results may actually be the same and technology may not be precisely the cause of the effect of what we're talking about.

Jane Richardson (Biochemistry): We've also been experimenting with flipped classrooms and they have a lot of advantages, but we found two issues and one of them which was very interesting was that you can't cover as much and so you have to decide what are the few take home lessons that you want to get across and make sure you do them. That's not a bad thing, but it is very difficult to say learning a mathematical competence or learning physical biochemistry or something at that level. I'm not sure we know how to do it yet; I'm not sure you can. And then the other thing, we found that the in-class discussions, again we have to learn what we're doing, because we found that ours were dominated by a couple of students, who ask very appealing questions, but those are not the students who did the best on the exams (laughter).

Dan Gauthier (Physics): I wanted to come back to what Nan said about student effort.

And the one thing that has always struck me here at Duke is the low expectation that faculty have for student effort. When I came here, in the faculty handbook it said something like ten hours of work out of each class a student takes and yet the senior survey shows that students put between maybe 6-8 hours total per week in their classes and I think this is just helping us get back to where we should be.

Tolly Boatwright (Classical Studies): Two things. One is that I remember when I was working with a QEP in 1980, students put in forty hours a week outside of class and in 1997 it was eighteen. But my other question tries to bring together the three different perspectives. One of the most important aspects to me about being at a place like Duke, or any place, is the sense of community. So I mean in some ways MOOCs perhaps because I'm never online making friends (laughter) but in some ways MOOCs are like a television program--in some ways, like the History Channel shall we say, or it can be like that, without this connection between it, but one of the great advantages of Duke and what Ian was just saying is the ability to bring more people to Duke, to create a community that is different. So I think, from my mind, that's one of my worries about the MOOCs. It is the sage on the stage, whereas much of the learning of all kinds is precisely in the creation of community as you said.

Phil Costanzo (Psychology & Neuroscience/ECAC): One of the reasons for these conversations is to think about the passage of time and the changes in that passage of time. One of the things that strikes me about what all three of you are saying is that there is something that has remained the same and independent of the medium through which teaching and learning occurs. One of the critical issues is, as I'm sure the four people committed to teaching in front of the room

are, they would be as inspirational in this era as they would've been 50 years ago.

Richard Brodhead (President): And vice-versa (laughter).

Costanzo: I actually think that the medium doesn't matter because the image of the teachers that you come away with as a student, is their interest in what they have to say and tell you. Their enthusiasm about the things they know and their understanding of what they know is limited and that more can be known. I agree with that "the more can be known" implies harder work on the part of the students, but I don't think the medium changes who we are. I also have thoughts when I was going through college that "gee, I wish lots of people could have this professor, and talk to them about, Chaucer for example, or anything at all" because it's exciting. I do think that over the years some things have changed, but some things haven't. I can give you one example. I thought the greatest innovation in the world, when I was teaching here in 1968 was that I was able to show overhead pictures (laughter) on a screen and that allowed me to show even more of what I might be able to share with the students and this is so much more than that. I don't think it's taking over education; it's giving a way to express ourselves with the very same commitments that you have. If you were just sitting here fifty years ago, you would still be committed teachers.

Joshua Socolar (Physics): I wanted to pick up the thread about community and time passing and look at the other side of it, which is that I am on the University Scholars Admissions committee and I see applications from these students. The ones I looked at yesterday were from students who were born in 1995, so these are students who have grown up in a very different environment when it comes to information transfer, social net-

works, what it means to be connected, and how you feel about watching someone on a screen. And I wonder how we can take that into account when we think about what it takes to provide a kind of experience that we think students should have? That is, reproducing the conditions that worked for us is not necessarily going to be the best thing for this generation. And I think some of this discussion about what works and what doesn't, has to be about what students are actually like now and not just about how we can deliver what we know better.

Armstrong: I think in many ways you're right, but there are some aspects of human interaction that haven't changed: respect and dignity and the fact that there are some things that are not negotiable. The thing that we hope when we send our children off is that we have delivered some cash of what that is and we've delivered them to a group of people, a community who will refine that for us, and so part of that is the maturation of their intellectual abilities. But the other piece that the beloved University is responsible to do is to take that group of values about interaction with others, respect for and support of others and that somehow within that community are modeled a set of expectations that they can take to the very next level. And if we are able, using any number of intellectual modalities to sharpen their academic skills and not lose sight of the fact that we are responsible for pushing them into the larger, now global community with their heads screwed on the right way, if we can do that then we become a great university.

Lozier: I just have something to add to what Josh said about the idea that the students today may be different from our education. So last year, as one of the number of maybe twelve different committees I'm on (laughter), I had the privilege of listening to the Duke Student Government give the results of

their survey--I think Peter was on the same committee. And they have students who were enrolled in several courses and some of the courses were using flipped classrooms or using heavily identified technologies and others weren't. They did the course evaluations at the end, they came and presented this to the Academic Affairs Board of Trustees Committee, and it turns out when they asked the students about what they liked, the things that they liked best about the class had nothing to do with technology. Whether the class was identified as a heavily intensive technology class or not, they liked the fact that the instructor was inspiring and enthusiastic. It was amazing, because the trustees expected to see a big difference but what really mattered was that enthusiasm, organization, and that sort of thing.

David Malone (Education): In his State of the Union speech President Obama suggested changes to the Higher Education Act whereby Congress provides federal aid to value-added colleges. And I know from the education world, there's a lot of discussion now about ensuring that value is added by the higher educational experience and I know our governor is now in favor of it (laughter). So I'm a huge supporter of the notion that good teaching does add value, but I'm curious about this question, about how Duke can respond to the question of how do we measure value in higher ed in this age of accountability?

Burian: This is a very important question and possibly crucial for the future of this University and every other one.

Baucom: I believe Vice-Provost Whitfield is in the room?

Burian: He left just in time apparently.

Malone: Perhaps that's for a later time. I think what's happening in the K-12 world is

now going to happen in the higher ed world and we're going to have to have an answer.

Burian: The fact that Keith Whitfield and other people in Arts & Sciences are very much involved in thinking about assessment in new ways is, I think, testimony to the fact that that is very important.

Lozier: When chairman of the Board of Trustees, Rick Wagoner, addressed this Council he posed that question and he said that increasingly we're going to be asked to define the value we add and if we don't come up with a metric for it, others will.

Michael Gustafson (Electrical and Computer Engineering): I think part of the community issue that I struggle with is that for my classes, there's quite a bit of vertical integration in terms of the learning. So I'm fortunate in that I can hire several undergraduate teaching assistants for my course. And what I find is, for my first year students especially, that they get to learn from and talk with their peers and say "what was it like for you, being a first year student in Pratt considering Trinity, or Trinity considering Pratt or at Duke considering elsewhere," things like that, that would not come from the massive online portion. And I just really enjoy that, because I teach first year students, and I get them from the beginning, I get them on day one when they are still very excited: "I'm in college" (laughter) and then as they become seniors: "I have to go to the real world now." That's part of what might be missed if the value added to the education part is really the community of intellect that gets formed with your peers as well as the faculty members and staff and other students.

Burian: I want to give our wonderful panelists thanks again and the opportunity to say any closing words.

Baucom: I think at this point the thing is actually to thank the Council for their conversation. There are endless strands that we could pursue, but you've had a very busy meeting, with a lot of work, and I'm happy to release the podium.

Burian: Thanks to all of you, thanks again to Susan (applause).

Lozier: I will see everybody at our March meeting and we'll have our last conversation in May, so thank you to all of our panelists.