Roundtable: Reluctant Professors

How can higher education leaders persuade foot-dragging faculty members to incorporate sustainability into their classrooms?

Getting highly educated, opinionated, academic-freedom-embracing professors to incorporate sustainability principles into their own classrooms requires more than an imprimatur to “do the right thing.” As much as university leaders and sustainability directors try to cajole and persuade, some faculty members just aren’t getting on board with sustainability. They’re not necessarily curmudgeons or naysayers—but the realities of their own progress up the career ladder might demand that they spend more time researching and publishing in their own specialties so that tenure will be a sure thing. As much as they might like to devote themselves to all things sustainable, the sheer demands on their time might prevent it. For sustainability to be incorporated into every college course, must a top-down imperative be issued? Or will a more gentle stipend offered to foster a chipper attitude about sustainability be more effective? Or is there some better way?

Sustainability: The Journal of Record gathered education professionals including both academics and administrators to talk about why some professors are keeping sustainability out of their classrooms and how to bring all, or at least more, hands on deck. Excerpts from the discussion follow.

Why Is There a Problem?

Paul Rowland: As we look at campuses, it is less clear that faculty have been as engaged as students in sustainability efforts. When we look at the extent to which sustainability has penetrated the higher education curriculum, we find some success, but there are still hundreds of thousands of faculty who have not done anything. Why are some faculty members reticent to incorporate sustainability into their curricula?

Tom Kelly: What I have found is, first off, there is a widespread lack of understanding of what sustainability actually is and what it entails, and therefore what its implications are for different disciplines. There is a broadly held sense that it is big, overly inclusive, or else that it is just the environment, and a tendency for people to want to make up their own version of it without any reference ... to key principles and documents and its own lineage of a known history. That results in either a point of view that their particular field or subspecialty does not connect to the subject matter or they might weave it in in a form that might actually trivialize the concept.

Terry Link: The other flip side that I would offer is that sustainability is about wholes, and we organize universities around parts. So there is not as much effort, in my opinion, to do wholes as opposed to the parts, and in fact, for beginning faculty who have a gun at their head to publish in peer-level journals, the options for them to talk about wholes when they are being asked to talk about very specific parts to get tenure is fundamentally in tension with the ideas of sustainability.

Katherine Kao Cushing: Our faculty at San José State are very willing, but they may lack access to resources or be unfamiliar with the subject area. But I think there is lack of integration into the retention, tenure, and promotion process. There is not a clear link to them so much to these research or publication outlets that are out there, and perhaps there is also a need for clearer incentives. Not only can you reinvigorate the curriculum, perhaps, by looking at things from a broader interdisciplinary perspective, but also it might provide an additional venue for you for publication in perhaps an area that you had not thought about before. Most of the faculty that I am working with at San José State might not be as aware of these additional research outlets.

Mitchell Thomashow: The issue is actually deeper than sustainability. Sustainability is a response to a planetary challenge. The planetary challenge is the sixth mega-extinction and climate destabilization. Until you understand that and until that is fully internalized in all aspects of who you are and what

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history, and fieldwork.”
Mitchell Thomashow

you do, it will not become a priority in terms of how
you work and how you teach.

James Elder: I come at this question from the per-
spective of behavior change: How do we get faculty
members to change how they think, how they teach,
how they do their research? Behavior change is a
function of a number of factors: incentives and the
rules of the system, social norms, education infor-
mation, persuasion and peer group pressure, and
most importantly, values. For incentives, there is a
lack of resources out there that are available, finan-
cial resources for trying to move in this direction. For
rules, the tenure and promotion rules do not support
what we want to see happen. The accreditation rules
do not support it. The social norms, we really have to
start promoting this as a trend and inspire others to
jump on the bandwagon. We have to change how we
educate potential future faculty and really promote
more of the interdisciplinary perspective that we are
talking about.

Underpinning it all, really, are the values of the
institution, which everybody ... is well aware do not
advance sustainability now, and we really have to get
at that root cause.

William Throop: In general, in the sustain-
ability literature, the natural science end is more well-
developed, and the environmental end, rather than
the social and the economic end. So those faculty
who might more easily gravitate initially to econom-
ic or social aspects of sustainability do not have as
easy a toehold from the point of view of literature in
their fields.

The Problem’s Severity

Paul Rowland: As we look at implementation of sustainability in the curriculum—and I men-
tioned earlier there were hundreds of thousands of
faculty out there who it appear are not doing any-
thing, although I do not know if our data is really
good on that—what are your perceptions of how
widespread the problem is, and what are the conse-
uences of us not engaging these faculty?

William Throop: The problem is severe. We have a
tremendous opportunity to transform universities,
but if graduate education is not transformed very
rapidly, there will be a tremendous time lag. So the
opportunity is now, and there needs to be major
national action to grasp this opportunity.

Katherine Kao Cushing: Certainly, there is a need
to move rapidly, as rapidly as academia can move, to
address some of these issues, because climate change
is not waiting for us to change our curricula. We do
need to kind of create a sense of urgency in some of
these institutions of higher learning, the ones

that are training the next generation faculty. Creat-
ing that sense of urgency and increasing the level of
issue salience, so to speak, is of critical importance.
In that sense, it is a problem, because this is not one
of the top three issues on a lot of faculties’ minds,
when it probably should be.

Mitchell Thomashow: We need an overhaul of the
entire K through 16 system. This has to start in the
early grades. We need students who understand the
geological time scale, spatial and temporal variation,
biogeochemical cycles, basic natural history and
fieldwork, you name it. I mean, these are things that
are not taught in school for the most part. They are
not in biology, chemistry, or physics. They are not
part of the standard curriculum. They come to the
colleges and universities by and large unprepared
unless they have already had some deep interest in
this kind of thing, and they do not get it for the most
part in the liberal learning context of the colleges
and universities where they go to school.

So it is a severe issue, and it is a major challenge, and
we need to train a whole generation of both sustain-
ability leaders and other college or university gradu-
ates who have a grasp of these kinds of issues. We
have to be strategic. It would be great if we could
have corporate and federal support. I know that we
have had some talks with a whole bunch of various
organizations about the prospect of having seminars
around the country where we sort of retrain high
school teachers, college teachers, have them work
together to think about what we need to do.

By the way, from a purely educational theory point
of view, who said that biology in 10th and chemistry
in 11th and physics in 12th grade is the way to teach
science? I mean, they are doing it the same way we
did it in 1965. There needs to be a whole new ori-
entation about how to learn. Understanding climate
change and understanding biodiversity are very deep
and very challenging concepts, and they require a
real sophistication and understanding of spatial and
temporal variation. We have to get our best minds
together thinking about how that gets done, and
there is an urgency about it, absolutely.

Tom Kelly: From my point of view, the subject at
hand is in no way limited to climate change and bio-
diversity, as absolutely critical as they are. There are
equally urgent issues going on in the area of food
agriculture and nutrition in terms of poverty and
human rights issues and the like. Part of what we
have to do is help connect sustainability to liberal
learning. I mean, the United States higher education
infrastructure is, it has been argued, the most direct-
ly related to the classical notion of liberal learning
that exists in the world, and that whole underlying
principle was to question, not just to passively be
acculturated, but to ask questions about the status

MARY ANN LIEBERT, INC. • VOL. 2 NO. 6 • DECEMBER 2009 • DOI: 10.1089/SUS.2009.9826
It is that spirit that has really been lost. We have drifted into a kind of mindless perpetuation of a set of practices and approaches that simply would not hold up to the light of day if we ever actually critically examined them. Going back to the roots of liberal learning is not just philosophically important to do, but it can help include a whole population of people who think this thing is just about the environment.

**Terry Link:** If you stop and pause and think about it, how we have gotten to the situation we are in has been led by our best and brightest. It is the college graduates who are running the country, who are running the organizations, who are running the corporate world that are making these choices. So fundamentally one should pause and say, “Well, if we are in bad shape and we have got all these people with college degrees running the show, maybe there is fundamentally something wrong with the educational system.”

The other element, though, is the process by which we come together to, among “experts,” go through a very complex set of interrelationships. And we spend no time, almost no time—not in the curriculum itself—dealing with what, for lack of a better phrase, would be democratic processes or dialogue and deliberation kind of approaches. Mostly what we do is we debate points and score points and win arguments, as opposed to a different kind of dialectical that would bring something more than the sum of the parts out of it.

**Mitchell Thomashow:** Well, it actually is not very difficult at an environmental studies college, and I speak with other presidents, and they also wish that their faculty could move more quickly than they do. I am pleased with how quickly the Unity faculty are moving. But I have essentially given them license to really radically transform the curriculum, and they hesitate.

I think part of it is that faculty are never really taught throughout their careers how to manage and adapt to change. Their work is very oriented around their own personal research success, and it is a real challenge to think about how to overhaul something where success is based on really being part of a hierarchy of learning and knowledge. So I think leadership also has to set up opportunities for faculty to really enjoy and learn how to manage change, and that overhauling the curriculum is a really good thing to do, and it is exciting, and it keeps you vital, and it keeps you vibrant, and it is our way of responding to all these challenges that we have mentioned.

**Paul Rowland:** I want to bring Jim into this issue of the urgency of this. In the conversations that you have inside the Beltway with folks working with policy, is sustainability in the curriculum a high priority, or is it just not on the radar there yet?

**James Elder:** The good news is that it is growing. The bad news is it is starting from such a small point that the growth rate is not still yet significantly reaching a large percentage of the population on the Hill, per se. If you look at, in the Beltway, there are certainly higher ed groups that are starting to embrace this. But simply on Capitol Hill, it is not there yet.

It is coming about, though. Obama has called for a transition to a green economy and has invested serious political capital, particularly through the stimulus bill, in trying to move in that direction. There has been a sea change in terms of this idea of a green economy. Five years ago, nobody on the Hill had any sense for what that means. It is now a fairly accepted term.

Related to that is a growing awareness that if we are going to make this transition, we have got to start to prepare people for those jobs. That tends to be viewed from a very narrow perspective. In other words, when people in Washington talk about green job training, they usually have in mind solar technicians, the guys that are going to install new wind energy systems, that type of thing. They have not been woken up yet to the fact that the vast majority of green-collar jobs are really going to be conventional jobs from a different perspective. They are going to be venture capitalists who understand how the green economy works and who invest funds in emerging companies that are trying to take advantage of that as just one example.

The final step, though, which is the step we are talking about really, the step to really infusing a different way of seeing the world as a precursor to broad-based education that really produces a different type of literacy in our graduates, that is not there yet. So that last step is really both the most important one and the one that is not yet taking place.

**Moving Faculty Forward Now**

**Paul Rowland:** Let me shift the discussion to talking a little bit about strategies for how we move this forward. How do we engage those reticent faculty to incorporate sustainability into their curriculum? We have heard about issues related to faculty understanding of sustainability, their ability to work holistically, their need for access to resources, the lack of publication outlets, the lack of incentives that they have, the need for behavioral change. What are some of the strategies that would be effective ways for us to engage those faculty?

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Tom Kelly: One of the strategies has to be to be very clear that this is not a prepackaged set of answers that we are asking them to digest and express inside of their teaching. We need to be clear and convey to them that sustainability is a contested and plural concept. All the answers are not in place. It embodies conflicting values that have to be worked out.

We need to be very clear, once again, about what it is we are asking them to engage in. It is not to just insert something that we give them into their teaching, but to understand there is a whole suite of very fundamental questions that need to be asked to go down this road to make this transition to sustainability, and those are provocative questions that are rife with learning opportunities from a wide variety of disciplines.

James Elder: This is the question that is of most interest to me, and there are two parts to it. I think there is a need to continue to stimulate demand, for our institutions to start moving in this direction, particularly in the curriculum and teaching and learning area, and that demand comes potentially from employers, from students, from other stakeholders, and really helping mobilize and organize them to get that message through is key.

The other piece of the puzzle is that there is some good professional development work that has been started in this area by AASHE (the Association for the Advancement of Sustainability in Higher Education), and by a few others, but that work is very isolated. There are very few programs, and we need to figure out how to take it to scale. If we have got hundreds of thousands of faculty that need to be retrained to more or less of a degree, we have got a huge scale problem. How do we deal with that? To me, number one, we have got to start working more with the disciplinary societies on professional development, because they are the ones that have the access to the faculty, and we have got to start working with the large-scale professional development programs.

We really need to influence those who are funding the faculty professional development. We have to continue to advocate for significant funding for this area, because from my perspective, it is only the federal government that has the funds that are needed to be able to go to scale.

Mitchell Thomashow: I just want to add to that, at the University of Maine-Orono—I do not know if this is true nationally; they claim to me that it was not only true for Orono, but for the whole country—that the default major for students who are undecided is business. You know, maybe it was English or something else years ago. Really, the business faculty are absolutely crucial in this regard, because we have so many undergraduate students who go that route.

Terry Link: For a faculty member, I think it is going to be the incentives, but it is also going to be the inspiration. One of the things I did while I was at Michigan State ... is bringing in, for lack of a better world, the rock stars of professions who do get sustainability and who can tell their story in a way that is pretty compelling and relates to the people in the disciplines. ... Also, because they are rock stars, they bring a whole broader audience to the room, and the energy that is in the audience and the pollination that goes on as a result of that I think is very useful.

William Throop: By clearly connecting the sustainability movement with the earlier history of the liberal arts as a focus on education for citizenship and ... then to clearly embed sustainability in the general education curriculum, which many different faculty from many different areas will teach, will give multiple entryways into sustainability to faculty across the curriculum.

I know at Green Mountain, where we have a general education program that is themed on sustainability, because all the faculty teach in the program at some time or another, I have a way to engage them with some element of sustainability. Then their peers will take them the rest of the way, and I do think ultimately it is peer-to-peer engagement rather than top-down engagement which is going to bring faculty from a neutral position to enthusiasm about this opportunity.

Katherine Kao Cushing: For our university, making use of in-house faculty expertise is probably going to be very, very critical in helping us kind of ramp up to scale at the university level. We have probably between 40 and 50 faculty that are pretty heavily engaged, either through teaching or research or co-curricular opportunities. I see that as a really good starting base to kind of move outward from the campus. These larger institutional and kind of national industry issues are really important, but also looking and taking stock of the resources that you have in-house and trying to expand those or maybe having those faculty serve as resources for other members of the faculty is another kind of model.

Tom Kelly: We keep talking about sustainability, again, as a kind of whole pill or whole coherent thing to be incorporated. I have found value and leverage in presenting a framework that has multiple components to it—climate and energy, biodiversity and ecosystems, food systems and culture —and of course, emphasizing their interaction. But there are ways that we can get curricular innovations in sub-areas of that. For example, we have got a new dual major in ecogastronomy that is linking sustainable agriculture, cuisine, and food entrepreneurship and nutrition. That brought together the business school and the college of life science and agriculture, and everybody is on fire. I mean, it is just a marvelous
thing. They understand that it is a part of the larger sustainability educational effort, but it is something that they were closer to that they could really tangibly connect with.

**Mitchell Thomashow:** There is also a necessity, as we all wonder about our futures as colleges and universities, what makes our programs viable? What is it that attracts a student to come to our colleges so that they get the learning skills that will really equip them for the future? I think we need to link it to that, as well.

Also, as we all know, it is crucial that this is a link to how we live on our campuses, that the best teacher of all, sometimes, is the campus as a learning laboratory, and how the students live and what kind of gardens we have and how we use energy. It has to be ubiquitous, it has to be done by everyone, it has to be part of the whole infrastructure. Because it does not matter what you teach, if you do not demonstrate it through the actual practices of the institution, it is not going to have nearly as much of an impact. So let us make sure that the hands-on, tangible overhaul of institutional infrastructure is crucial to this sustainability-infused learning liberal objectives aspect of things.

**Are Stipends the Solution?**

**Terry Link:** Incentives do not need to be necessarily cash incentives. There needs to be recognition and rewards of some kind, and we might not want to get on, especially in resource-scarce environments, that the recognition or incentive or reward has to be a dollar kind of approach.

**Tom Kelly:** To give somebody a stipend to come have a conversation may or may not help. I think that is kind of undershooting where we need to keep our eye, and I think the kind of incentive that we are working to provide is more a kind of infrastructure incentive, I will give you a concrete example. We worked for four years to build an organic research dairy farm, the first at a land grant university in the United States. That dairy has since become the locus of interdisciplinary agro-ecosystem science and teaching, which are creating more competitive proposals for funding for research and more integrated educational opportunities as well as extension work. So it is incentive, but it is incentive at a structural scale that faculty can see themselves in and see how it helps them be productive and get engaged in some very exciting work.

**William Throop:** If I were looking at incentives in terms of money or incentives in terms of time, at least at smaller colleges, where the teaching load is high, I would go for the time. I think providing faculty with the time to team-teach courses that are related to problems in a region gives them the opportunity to learn from someone else and to get out into the region, and it provides payoff not just in that particular course, but over time with the integration of regional problems into other courses. We run a bunch of 15-credit “monster” courses, they are sometimes called, taught by five faculty, a lot of it out in the field. It really is as much faculty development as it is a great educational opportunity for the students who happen to be in the course.

**Driving Change**

**Paul Rowland:** Let me shift the question to who is responsible for these changes that we are looking at? Within a given campus, does the responsibility for assisting faculty in incorporating sustainability into the curriculum rest with the sustainability coordinator or director? Does it rest with the provost? Who should be charged with this, and who should take the lead?

**Tom Kelly:** I would really advocate that we not frame it about infusing sustainability into the curriculum. I really think that is that is problematic. If we ask whose responsibility is it to drive faculty to be responsive to the challenges, mega-challenges, and opportunities of sustainability in their teaching, then I think that is something that becomes a distributed responsibility. In the case where there are positions like the one I am in, which is a chief sustainability officer who reports directly to the provost, I have a lot of responsibility in there, but it is not seen as isolated responsibility, because the framing of the challenge connects with so many other dimensions of work that is going on. There are people who are working to get more engaged scholarship. But going beyond that, how do we frame research in concert with decision-makers who are facing problems right in our immediate regional area? There is a whole team of people working on that, and I work together with them to connect this up and engage faculty in the process. So I think it has got to be distributed responsibility and distributed leadership.

**William Throop:** Just on the question of chief academic officer or sustainability coordinator ... it has got to be both. I think sustainability directors or coordinators have a tremendous opportunity to be available to provide material for faculty who want to engage a course in a campus issue. Most faculty do not know how to go about getting data about energy use on campus or information about water use on campus. The sustainability directors have that information, and if the chief academic officer can just push a little bit to have faculty engage regional problems, then I think the sustainability directors will be there with the material necessary to do a good bit of that.
Mitchell Thomashow: We have been very successful at Unity with the sustainability coordinator, who was trained at Green Mountain, who does exactly that. And he finds that he cannot even keep up with all the requests that faculty have, that there are so many prospects and ideas that are of interest that I have asked him to actually mobilize the student body so he can get as much help as he possibly can.

One of the things we have done at Unity is to build sustainability initiatives into job descriptions so that everyone is learning together. We built the Unity House, the zero-carbon presidential residence (a solar-powered house where the college's president lives). The director of facilities said his career was entirely rejuvenated because he learned so much from the whole process of running the construction that he was about to retire, but he wants to stay because he is so excited about what he sees and what the prospects are.

In the cafeteria, we ask environmental interpretation classes to go in there and actually label what we do. The whole campus can be part of the learning experience. I think that cannot be underestimated, how important that is.

Beyond 10 Percent

Paul Rowland: About a year and a half ago, the AASHE board of directors adopted a set of goals for the end of 2011. One of the goals reads, ‘At least 10 percent of the courses offered at American colleges and universities will enable students to synthesize an understanding of environmental economics and social forces of change and apply that understanding to real-world problems.’ How do you think we are doing? Are you optimistic that we will have 10 percent of the courses doing that?

Mitchell Thomashow: This may be somewhat romantic on my part, but I think it is an emergent property, what I see now. If you follow the AASHE newsletter each week, you see 50, 60, 70 items of significance. It is incredible what is happening, and I do not think there is a way to measure it. You know, we are out in a little corner of the world here in rural Maine, but we are able to keep up by following newsletters like that.

As I said before, campuses that never had any voice around environmental studies are thinking about how to do this and thinking about how to do it well. I think there is a proliferation of interest, and we know we have much further to go, but I think we have to promote how successful we have been recently, and that there is a pathway now that is possible that just has not been possible for years and years and years. So, again, this is entirely anecdotal, but I really do believe it is an emergent property, and this is a time of proliferation for us in terms of the learning and thinking about these issues.

Tom Kelly: If I ... scan ... the AASHE bulletin, and just the magnitude of what is going on, I agree that we have got a lot of momentum that we can build on. I am an eternal optimist anyway, so I am optimistic that that change is in fact: We are going to get over that threshold.

I would say one other thing, just toward a few other comments that were made earlier, and that is, all sustainability director positions are not the same, and not all of them are limited to operational issues on the campus.

I do not spend very much time at all on that. People that work with me and for me spend a certain amount of time on that, but I would caution against kind of seeing all sustainability administrative positions as dealing with campus operations.

William Throop: I would like to be highly optimistic, but I am not there yet. I was just out at a meeting of chief academic officers (CAOs), and just talking with a wide range of them anecdotally about what was happening in sustainability in their campus and what was their position with regard to rewarding or incentivizing that activity. I would say it is far down the list of priorities for the vast majority of CAOs. Although I would love to think that this can be a wholly grassroots initiative, I think that there will have to be a major initiative to shift the reward structures for faculty and to implement more powerful post-tenure reviews if we are going to really turn the Titanic here.

Terry Link: Part of the reason I left higher education recently is I do not hold out the hope that the change in the world is going to come from higher education. I wish that was the case, but I really do not feel that it is. I really do feel it is civil society that is the driver in almost all of this, and certainly higher education is in a position to accelerate change in incredible ways. The leadership is all on the fringes at most of the institutions. It is mostly all grassroot-driven. It is either by students or some subset of the faculty or combinations of faculty, staff, and students....

Mitchell Thomashow: Just as a counter to that, you know, there are so many ways to be looking at this, but I am very optimistic about what something like the ACUPCC, the American College & University Presidents’ Climate Commitment, has been able to accomplish in a short period of time. There was not even such an organization three years ago, and now we have got, I do not know, 650 colleges and universities have signed onto this, and that is a remarkable thing. (Editor’s note: For an article on schools that have not signed, see page 356, this issue.) I know
the ACUPCC is very interested and very oriented toward providing as much technical assistance as they possibly can.

I am on the Education Steering Committee. We are trying to find a way to mobilize college presidents in these directions, and of course ... there are a lot of college presidents that have not quite grasped this yet. But on the other hand, there are 650 colleges and universities that have signed on. In the state of Maine, for example, most college and university presidents have signed on. They are all very excited about this. The publics and privates are working together in a very difficult economic climate.

**Tom Kelly:** I do not think the role of the university is to lead this radical change. I mean, that is a story sometimes people in higher education tell themselves, but it just does not square with the history of the institution. But that notion of accelerating change and reinforcing change in a new direction, we definitely have a role to play.

I think the one proper analogy for what we are engaged in here is abolition. If you look at the abolition movement, it took time because it was shifting patterns and institutions that were deeply embedded in society, and which there were very powerful economic interests, and yet the push continued. One way that the various actors in the history of abolition are talked about were their groups. There were the immediatists, who demanded immediate change. There were the gradualists, who said, “Yes, it is wrong, but, you know, eventually we really should change it.” Then there were the apologists. I think universities, the question is, are they apologists for this completely unsustainable path we are on, or are they gradualists? I think the immediatists are the NGOs (nongovernmental organizations), the community organizations and the others, and we need to link with them, and they can help drive more change more deeply, more quickly inside of the institution. But we are by definition really gradualist institutions.

**Katherine Kao Cushing:** I do think that there has been an exponential change in the interest at higher levels of administration, at least, from my perspective, within the CSU system, which is a 23-university campus. People are very, very interested in it, and there are a number of institutional changes occurring.

I do not think any of us would be here if we were not optimists at a certain level that we could accomplish these goals, you know, so I think with effective mobilization and also kind of this federal-level interest in building the new green economy, I do feel optimistic that with a lot of effort on our part that we could reach that goal.