Dead Ideas in Teaching and Learning Podcast Series

Season 8, Episode 1: Teaching Development in Doctoral Education: Where, When, and How?

Center for Teaching and Learning, Columbia University

[00:00:00] **Catherine Ross:** Hello and welcome to Dead Ideas in Teaching and Learning, a higher education podcast from the Center for Teaching and Learning at Columbia. I'm Catherine Ross, the center's executive director. As a quick reminder for our listeners, in this podcast series, we are exploring dead ideas in teaching and learning. In other words, ideas that are widely believed though not true and that drive many systems and behaviors in connection to teaching, exercising what Diane Pike called, the Tyranny of Dead Ideas. Welcome everyone. I'm speaking today with Doctors Benjamin Rifkin, Rebecca Natow, Nicholas Salter, and Shayla Shorter about their Chronicle of Higher Education article from last March titled, *Why Doctoral Programs Should Require Courses on Pedagogy*.

[00:00:58] Dr. Benjamin Rifkin is professor of Russian and Interim Provost at Fairleigh Dickinson University. In his first 15 years in a faculty position, he was a professor at the University of Wisconsin Madison, where he supervised the graduate students teaching lower division Russian language program, and taught the graduate seminar on methods of teaching Slavic languages.

[00:01:23] Dr. Rebecca Natow is Assistant Professor of Educational Leadership and Policy and Director of the Higher Education Leadership and Policy Studies program at Hofstra University.

[00:01:34] Dr. Nicholas Salter is an Associate Professor of Industrial Organizational Psychology at Hofstra University. As a former director of a teaching and learning center, he cares deeply about issues of educating the next generation of educators.

[00:01:51] Dr. Shayla Shorter is a clinical collaborative librarian and assistant curator for the medical library at NYU Grossman School of Medicine. She was

a special visiting assistant professor of biology at Hofstra University at the time she contributed to this work. Welcome to our Dead Ideas podcast, everyone. I am delighted to be talking with you this morning.

[00:02:16] **Rebecca Natow:** Wonderful to be here.

[00:02:18] **Catherine Ross:** So, let me set the stage a little bit. So one area of systemic change that I believe, and my guests here too also believe this, um, that is right for unpacking is that of graduate education. And so today's conversation will focus on one aspect of graduate education, and that is the idea of providing pedagogical development for all grad students as a routine part of their doctoral training.

[00:02:49] In their article, my guests summarized some research that they did on the current state of, uh, I much commented on, and this is a quote, "disconnect between what graduate students are trained to do in grad school and what they are expected to do in the college classroom," end of quote. They neatly summed up their findings with this quote. "That level of inconsistency seems decidedly out of sync with the many teaching-related problems-- student disengagement, enrollment drops, grading complaints, worrisome new technologies that are dominating our discourse." To which I would add, yes. Because the idea that doctoral education should focus solely on research and writing and ignore teaching is a really dead one. But it also, um, in my opinion, sets up research and teaching as an either or proposition which is I think really not necessary because they often can be very complimentary to each other. So let's hear what our guests have discovered and what they are recommending.

[00:04:05] So my first question. And I think Shayla is going to kick us off on this one, is if you could briefly summarize the data that you collected and what it showed you about the place of teaching in doctoral education.

[00:04:21] **Shayla Shorter:** Sure. Thank you so much, Catherine. Um, so you summarized our article, uh, excellently. Um, we were thinking about how many groups have repeatedly called for renewed attention to improving teaching and learning in higher ed. Um, but as you said, and as we wrote in our article, um, there seems to be this disconnect between what graduate students are trained to do versus what they are expected to do in the college classroom. So, uh, for a brief overview, we investigated 3 different disciplines. Um, that includes history, psychology and biology. And we wanted to look at the degree to which graduate programs required their doctoral recipients to actually learn teaching skills.

[00:05:11] Uh, we use data from the National Center for Science and Engineering Statistics' survey of earned doctorates. And we essentially chose the top 10 departments or programs that granted the largest numbers of PhDs in each field over a three-year period from 2019 to 2021. Um, we excluded forprofit and fully online programs because we felt that that, um, uh, contributed different variables to what we were looking at. But essentially getting that data or, um, consolidating that data we wanted to look at how many offered, uh, a graduate course on teaching and learning. And more importantly, we wanted to know how many programs actually required it. Right? And so what we found. Uh, briefly is that in history, three out of 10 of those top programs required, um, a teaching course.

[00:06:08] In psychology, two out of the top 10 required a teaching course. And in biology, five of the 10 programs, uh, required a teaching course. Um, and I'll briefly note that in biology, and perhaps also in psychology, there are sub departments that may require different requirements. So you may have different programs that have, um, may offer a course or require a course and others that don't. Many of the schools offered voluntary workshops and or had centers for teaching and learning like the one you have here at Columbia. Uh, which of course are fantastic resources but at the same time Some programs see teaching as a distraction from research, um, and actively discourage trainees from engaging in it.

[00:07:04] **Catherine Ross:** Yes, I would concur, and it is not unheard of to have people say that they were discouraged from working with the Center for Teaching and Learning, because we do have a very robust online course for teaching development that offers two levels, a foundational level and an advanced level, and it gets put on a transcript, but, um, not everyone can take the time away from duties or research duties or, or their coursework to participate in that.

[00:07:37] **Benjamin Rifkin:** This, um, discouragement of engaging in thinking and working on pedagogy um, uh, is sustained well beyond the completion of the degree. I've heard from numerous faculty around the country in a variety of disciplines that they are discouraged from applying for a teaching award, um, at their institutions because winning one could reduce their chances of getting tenure and promotion or promotion to full.

[00:08:06] **Catherine Ross:** Yes. You know, there's a whole conversation going on right now about how to recognize if your university undervalues teaching. There's a big one right there, right? The ways in which teaching, um, doesn't get recognized or in fact is, is a penalty if you do it. If you're good at it, right? Yeah,

it's um, it's a huge issue I think for higher ed and one that has to be reckoned with, which is why I'm happy that you're all here today.

[00:08:37] So let's, let's get into this then. Um, another question for Shayla. It's a quote. I love, I love, love this quote. And it says, "American graduate education in the arts and sciences remains trapped in a vicious circle, training successive generations of faculty members for research responsibilities at a time when teaching expertise is needed perhaps more than ever before." This is exactly what makes dead ideas so hard to, to displace. Um, they're just pernicious because they're passed on generationally and they become normalized as the way we do things. So Shayla, could you tell us a little bit more about why it is so critical that we get rid of this dead idea and just uproot it from the academy altogether.

[00:09:33] **Shayla Shorter:** Absolutely, Catherine. Um, that is an excellent quote from a 2018 CBE Life Sciences paper from, uh, Sarah Braunwell, um, and her colleagues. Uh, I'll say that when we consider the many teaching related issues that faculty are facing, one of the solutions obviously, should be to train our faculty to use evidence-based practices to improve teaching and learning. And, you know, we can do it at the graduate level, and of course, as my colleague Ben mentioned, um, incentivize faculty to also engage in training to improve teaching and learning. But I'll say that more broadly, we have to remember that we are teaching young adults that are citizens of our global population, and they will need to navigate a world with increasingly difficult issues and rapidly changing technology and so giving them the skills to do that will require us to have excellence in teaching.

[00:10:41] **Nicholas Salter:** This is Nick. Uh, yeah, if I can, uh, comment on that, Shayla, talking about the importance of meeting the current generation of what students need and what the workforce needs and what not, there's a lot of competition out there for other forms of education, other forms of learning. Higher education is getting a bad name nowadays for people saying like, oh, college isn't worth it. But we know we, it can be worth it. And so we have to do it right to give the students what they need.

[00:11:10] **Catherine Ross:** I agree with you totally, Nick. And I think that whole college isn't worth it conversation is actually reaching a pitch where it's starting to become evident to universities that they need to do something and you know, in my opinion, it goes directly back to the, do universities really value teaching? Because if they did, and if they just worked on improving teaching, undergraduate and graduate teaching, I think a lot of that discourse would, would go away. Yes, Ben.

[00:11:45] **Benjamin Rifkin:** I think, you know, it's part of the vicious circle that we find ourselves in, of course, is the fact that previous, you know, it's, it's created by the fact that previous generations are replicating the systems in which they themselves thrived. However, I think it's also important to remember that throughout, um, the United States, and I believe around the world, individuals who are seeking to teach at the K-12 level are, uh, in a public institution, are required, um, by the local governments, in our case, in the United States, by state governments, to complete certain educational experiences verified by a transcript about the nature of learning and pedagogy appropriate for their discipline and the level at which they'll be teaching.

[00:12:31] **Catherine Ross:** Indeed, and that segues right into the next question, which is for you, Ben. So, um, in this article, my guests offer not just a critique, but also some next steps that, that institutions could take to improve this situation.

[00:12:52] And so the first couple steps are related. Um, one is designing a required pedagogy course, and, and also requiring at least one, if not two, credit bearing courses in pedagogy. So, um, Ben, I think you were going to elaborate on that a little bit, because I was kind of curious, like, how might the two courses be complimentary, um, who's designing these courses, who's offering them, and why should they be required, and all kinds of, you know, how would they be graded, how would it be, they be assessed for their impact, and what are you going to do if there's any fallout either from grad students or faculty who don't see this, just see this as taking time away from not adding to someone's education.

[00:13:44] **Benjamin Rifkin:** So we have to start the process somewhere. Um, and unfortunately, we don't have enough faculty in higher education who have the skills to teach these courses. Um, I do want to point out that there are people who can teach them who are often not recognized with, with tenured or tenure track positions. Um, there are excellent people with great pedagogical skills who are part timers, who are not, uh, contractual, uh, one-year visiting, uh, faculty or lecturers. They are not at the uh, peak of the power structures in the world of higher education faculty, um, because the reward system in place currently rewards traditional scholarship.

[00:14:30] Um, and I do want to point out for those concerned about traditional scholarship that um, no, uh, less important a figure than Boyer in his, uh, Modes of Scholarship, the title is close if I'm not exactly, uh, right on the title, um, does have a, a, a modality of scholarly activity focusing on pedagogy. And in fact, you know, in your opening remarks, uh, talking about the integration of

pedagogy and traditional scholarship, that being said, um, each institution and department should start with um, uh, assembling groups of people who can contribute to the creation and teaching of such a course. Opening up the possibilities of team teaching and teaching across disciplines. So, for instance, I could easily imagine, um, that it would be very productive for a research 1 university, and let's recognize that our doctoral programs are most often in R1 institutions, um, to have such courses offered across departments. So, for instance, a course in the teaching of the natural sciences. A course in the, in the, in the methods of teaching the social sciences, a course in the methods of teaching humanities more generally. And to turn to experts for advice from the various national associations of, of scholars and teachers of the given fields, the ACS, for instance, in chemistry or, um, the American Historical Association for history and so forth, um, where some work has certainly been done. And also turning to, um, cross disciplinary, um, organizations such as A. C. E. and the American Association of Colleges and Universities, um, with their fabulous program of liberal education and America's Promise and, uh, the essential learning outcomes and, and the value rubrics. I think that in thinking about the, uh, development of these courses, it's, it's really important, fundamentally important for the designers to stay away from the idea of one particular path of teaching success because the best teachers are the ones who are teaching from their own hearts, and each one of them has a distinctive style and path, and it's my job to provide a way to access learning for every student with their unique and distinctive perspective um patterns of multiple intelligences and to support every student in their aspiration to learn. And to recognize that teachers have to come to their teaching activity in the ways that that fit them. And one of the problems that we have with methods courses around the country is that in some cases the faculty teaching those courses are replicating themselves. And this is not what the nation needs. And when I taught methods, I told my students, look, there may be some things that I do that you like and you want to do, and that's fine. But you can't be Ben Rifkin. I'm Ben Rifkin. You have to be you. And so it's really important in method's courses that develop that we're not steering people to one particular way as the ways will evolve, we will get more data. What we want to inspire in our future educators is the curiosity to learn, the dedication to serve students, and the recognition, and this is shocking for a lot of faculty, that not every single one of our students wants to get a doctoral degree in our field.

[00:17:48] What is the value of studying your subject if it's not to get a PhD? Why study the natural sciences? Oh my goodness, there are so many more reasons than to become a doctor. There are so many more reasons than to go and work in the pharmaceutical industry. We need a scientifically literate population in this country and the world. We need to understand pandemics. We need to understand global warming. We need to understand public health. And all of those should be driving factors in not only the content of our curricula, but how we train our faculty to teach students who are not like them.

[00:18:35] **Catherine Ross:** Thank you for that, Ben. And you just took down, uh, another dead idea, which is that, um, when you do engage with a center for teaching and learning or a departmental teaching program that they're going to be prescriptive and they're going to tell you exactly how you have to teach and there's only one way to do it. And that couldn't be further from the truth, because what we're all trying to do, as you said, is develop reflective and informed practitioners who understand enough of the research about what works and can figure out the best way to do that in their classrooms, in their disciplines, and for themselves.

[00:19:18] **Benjamin Rifkin:** As the research continues to grow.

[00:19:20] Catherine Ross: Yes. Yes.

[00:19:21] **Benjamin Rifkin:** And I realized I left out one thing and I'll be very quick here. Um, something about, you know, why these should be credit bearing because if they're not credit bearing, they don't count.

[00:19:31] And just as you know, as a, as a leader in higher education, I can tell you, that the budget of your university is a value statement and the required courses in your curriculum are a value statement, and so they must be required. And as somebody who hires faculty, I want to know that the faculty I hire are ready to be good teachers for my diverse learners. And that they will continue to grow as teachers throughout their long career. Because when I'm hiring a tenure track faculty member, that's a 30 to 40 year commitment. And I want that growth to continue for all those years.

[00:20:11] Catherine Ross: Great. Rebecca, please.

[00:20:13] **Rebecca Natow:** Thank you. Um, that, that was such a great point by Ben. And I just wanted to follow up briefly to point out that one, um, one of the things our recommendations in the Chronicle article was based on, um, was this concept of, uh, pedagogical content knowledge, um, based on the work of Lee Shulman, uh, going back many years.

[00:20:30] Catherine Ross: Many years, yeah.

[00:20:32] **Rebecca Natow:** Yeah. So to the point that Ben made about, um, knowing how to teach different disciplines, it's important for college faculty to

know their discipline very well, to be an expert in their discipline, to know how to teach, to have those pedagogical skills, but also very importantly, to know how to teach specifically in their discipline to students of their disciplines.

[00:20:53] **Catherine Ross:** Great. Thank you for that, Rebecca. So my next question. Um, it's actually a two part question. It's around, um, the third recommendation. And the third recommendation in the article was that we should evaluate graduate student teaching. And that's really interesting to me because I've already been talking with other guests about, um, another big systemic change that's needed in higher ed is is uh, improving the evaluation of teaching for everyone, right? So it's critical to not just instructor success, but also to um, encourage the kind of teaching that we need today, to address all of the factors that you've all outlined. So how would this evaluation of teaching play out for doctoral students? And then the second part, and I'll, then I'll let you go at it, Nick, um, is if we're serious about changing institutional valuing of teaching, then if we're going to evaluate grad student teaching, then shouldn't the departments also be thinking about the ways in which they're evaluating their faculty's teaching. Just, you know, a small question.

[00:22:10] **Nicholas Salter:** Sure, sure, and, uh, I just want to say thanks again for having us. I think this was a great conversation. Um, I think a lot about evaluation and, um, what can we do specifically with regards, you asked about doctoral students and then faculty. Um, when I think about kind of how to evaluate a doctoral student and if they are a good instructor or not, I just kind of take a step back and just remind myself that teaching is hard. It's not something that I think even works well, necessarily perfectly the first semester. I've been teaching my own, uh, courses for like 18 years now or so and I still believe that I don't get it right until like the third semester. And so a doctoral student teaching, first time teaching, maybe they'll have time for two semesters, maybe three semesters in their grad program. It's never going to be kind of like the, the best course in the world, just because even for seasoned professionals, it's, it's not going to, it takes a lot of time. And so, I like the fact that you ask about, uh, evaluation separately for faculty versus doctoral students, because I do think it should be, uh, different.

[00:23:19] When I think about, from a doctoral perspective, I really think about approaching it from a developmental standpoint. And kind of less about, like, did you do good, did you not do good, which of course is important, you know, and especially decision making with regards to, like, hiring next semester. Um, but thinking about it in terms of, is the doctoral student who's teaching their classes, are they being reflective on their teaching practices?

[00:23:47] Are they being thoughtful about what works and what didn't work? Are they putting planning in? to the class beforehand instead of just kind of like taking those PowerPoints that the textbook gives us or something like that? Are they benchmarking and talking to previous instructors that have, um, taught the class to kind of see like what works well and what doesn't?

[00:24:11] Uh, the first class I ever taught when I was in graduate school was statistics. Um, which I thought was kind of like a bonkers class for a first time doctoral student teaching. And I remember going to the faculty that were teaching the class and asking like, what book do you recommend? You know, what, what activities do you recommend?

[00:24:29] And they were very taken aback at the thought of like, they're like, no, no, no, Nick, no, no, no, you have choice. You get to choose. And I'm like, I don't believe I'm in a place to be choosing. And so I would be evaluating these instructors to see, these doctoral students to be seeing like are they being thoughtful? Are they kind of, uh, being reflective? Are they kind of planning, um, before and then kind of, uh, revising afterwards as well? A lot of this goes back to like, you evaluate them on what you train them on. And so the type of stuff I'm talking about of like building reflective assignments and, uh, approaches and whatnot is what we would be including in these, uh, teaching methods courses anyways.

[00:25:16] And so I, I, I, uh, think about from that perspective. I also think about the importance of listening to the student voice in evaluating doctoral student teachers. Um, I think that in higher education, we often just rely on uh, teaching evaluations, those like end of the semester, um, uh, evaluations, and that's problematic for a number of reasons, and I'll talk about that more in just a moment, but I think that beyond just that, um, I really like, Ben, what you said a couple minutes ago about, students aren't us. They don't think like us. They don't, um, they don't learn like us. And I think about all the times that, like, I've been in, like, faculty conversations about, like, We should do this with, uh, the class, or we should do that. And, like, no one kind of thought to ask, like, the students, like, will that benefit from you? Will that help? Um, how do we evaluate effective teaching at the faculty level? It's funny. I think it's, like, a lot of what we're already doing, but let's do it seriously. Peer observations are great. I don't think, I don't know that they're always taken seriously. I think everyone just kind of writes nice letters because nobody wants to hurt feelings which I totally understand. Um, I think we rely a lot on student evaluations and there's so much research on group differences and demographic differences, um, and, um, disparities in these evaluations. And so I think that we want to be evaluating through triangulation methods of looking at teaching materials.

Looking at peer observations, looking at student, uh, evaluations, getting student voices beyond just those evaluations at the end of the semester, though. Not placing an inordinate amount of, uh, weight on any one of them. But also kind of doing them all right. Like, if you're going to look at, uh, uh, syllabi. If you're going to look at exams and whatnot. Like, be, be honest about it. And it's not, this isn't kind of like trying to like tear people down. But like, everybody, um, looks, uh, we want to improve everybody.

[00:27:26] **Catherine Ross:** Yeah, no, I think that's all really good advice. Um, I would say that Um, also encouraging particularly new instructors or anyone teaching a new course, I would say for all courses, but especially these groups, I always encourage them to do an early semester before any major deliverable, like a start, stop, continue, right, with students, right? Tell me like what we should start doing that would improve your learning or is there anything we should stop doing that doesn't help you learn? What should we continue doing? Because then you're engaging the students in a regular conversation because once you do that, you have to go back and talk to them about what they said and what, what that made you think about and why you're teaching the way you are teaching if you're, if you can't change it. And those conversations educate both the students and you get that information early in the semester when you can act on it.

[00:28:27] **Nicholas Salter:** In my experience, the stop start continue the students are much more honest about not like mean honest but like honest than the end of the semester evaluations

[00:28:37] **Catherine Ross:** Well also because it's focused it's making them talk about their learning not evaluate your instructor. What is helping you learn, right? And so you're not saying, give your instructor some kind of grade here, right? Um, or would you recommend this instructor, right? It's not evaluative. It's really pushing students to say, here's how I'm, you know, the instructor to say, here's how I'm teaching you. How is it working for you? What's happening with your learning?

[00:29:08] So I think that formative, like you said in the beginning, you want this to be really developmental. And I also encourage instructors to use those as data. When they provide a narrative for a promotion review or reappointment or things like that because it's data, right? You can gather. All right, I want to be mindful of our time here, so I'm going to get to our last question, uh, which will be for Rebecca.

[00:29:37] Um, so the final recommendation in your article, which is to make the commitment to classroom teaching development official by getting accrediting bodies to require it for doctoral programs, is um, Maybe some people would see that as pretty radical, but I think it points to why we're talking today because it's so difficult to change higher education stance on teaching that, you know, as Ben said earlier, you have to start somewhere.

[00:30:07] and maybe having an accrediting body requiring it is the somewhere that you start. I know, you know, being in the teaching center realm for so many years, we're a little bit, we do not engage in mandatory programming because it, it tends to backfire where we have a lot of students who don't want to do it or instructors who feel like, oh, it's just another box I have to And they distract from the, you know, the people who really do want to be there and who do want to do it.

[00:30:37] But that's sort of based on our, you know, our positionality in, in the universe, right? If, if higher ed, like we don't have that kind of power. So, um, I'm really curious what You know, when, how you would, um, if, if this came to happen, like in an ideal world, if all accrediting bodies said, okay, we're going to require this, how would you address the, the challenges around changing the culture, um, and addressing potential resistance, um, which Out, not open resistance, but the kind of resistance where a faculty member might say to a graduate student, Yeah, they're going to make you do this, but don't spend too much time on it.

[00:31:24] Or, um, you know, yeah, that, I'm sure you're familiar with all the ways in which resistance can play out. So, how do we do this? How do we make this? Culture change happen?

[00:31:36] **Rebecca Natow:** That's a good question. And one of the early conversations we had as a group when we were talk first talking about writing an article like this was what will motivate institutions to change.

[00:31:46] And that's how we identified accreditation is as a motivator, because once something is, if not a requirement and expectation or something that accreditors are going to look for, then that's something that's definitely going to motivate institutions because they don't want to jeopardize their accreditation. They don't want to jeopardize everything that comes with that, including prestige, including access to federal student financial aid, et cetera. I think you are absolutely right that it is a question of culture shift because yes, higher education is famously resistant to change. And there's a lot of reasons for that. [00:32:22] One of those reasons is that every discipline again is different. Every department is different. Expectations for, um, how to teach in a discipline and how much teaching should be emphasized in a discipline is different. And institutional missions are different. There's there's absolutely no one size fits all policy that's going to apply to every institution of higher education equally, but the conversation now and we talked about this at the beginning of our conversation today is about is higher education worth it with the escalating price tag on higher education.

[00:32:56] So many conversations right now about student loan debt. Um, public opinion polls showing, um, across the board declines and faith in higher education. I definitely think it's worth exploring how much of that is related to perceived inadequate teaching where, um, conversations that I see in social media sometimes are which are the universities that don't have graduate students teaching, that actually have these professors, um, who are bringing prestige and bringing money into the institution? Are they actually teaching the classes, or are they just sort of handing it off to, um, people who are either graduate students who are still learning how to teach? Or people who are part time adjuncts who aren't, uh, who have jobs elsewhere and are not fully committed to the institution. So there are conversations about this, and I think that's where a culture shift is going to start.

[00:33:42] From a policy position, you can, you can speed things along by looking at things like accreditation standards, and what is the Department of Education in Washington, D. C. saying about how PhD institutions are training their, their graduate students to teach. So it's not going to be easy, and I do think it starts with conversations like this one, and a recognition that higher education has to do something about this decline in public confidence and the price tag that keeps going up are what our students and their families who keep shelling out that money. What are they getting in return for that?

[00:34:14] **Catherine Ross:** Right, right. And I think sometimes it's not even a perceived uh, problem, like say for students actually understanding why something doesn't feel valuable. It's, it's a kind of hidden thing, right, where instructors aren't making the value known to the students, they aren't helping students see what they're gaining from this experience.

[00:34:40] Particular class and how this class might inform their lives going forward or other classes they're taking, right? You know, most instructors, when you say, well, are you talking to your students about having them reflect on what they're learning and connect it to their life or their goals or their other classes?

[00:35:00] You know, the usual reaction is, well, I don't have time to do that. I have, I have to cover all this content, right? And so I think it's a, it would be a huge paradigm shift to get even that piece, if we could just get it uncovered so students could see value, right? And, and make it, um, explicit rather than implicit, it would help.

[00:35:25] **Rebecca Natow:** Absolutely. It's, it's once again, revisiting what is the mission of higher education, recognizing that, that, student learning is an important part of that mission.

[00:35:34] **Catherine Ross:** Yes, we are probably way over time here, but I think we could talk all day if, if we had the, the chance to, but I want to thank you all so much for joining me today. And, um, I really appreciated your article and this conversation even more, it's been really enlightening and, um, encouraging I think. So thank you all.

[00:36:02] **Benjamin Rifkin:** Thank you.

[00:36:03] Shayla Shorter: Thank you.

[00:36:04] **Rebecca Natow:** Thank you so much.

[00:36:08] **Catherine Ross:** If you've enjoyed this podcast, please visit our website where you can find any resources mentioned in the episode, ctl.columbia.edu/podcast. Please like us, rate us and review us on Apple podcasts or wherever you get your podcasts. Dead Ideas is produced by Stephanie Ogden, Laura Nicholas, John Hanford, and Michael Brown. Our theme music is *In the Lab* by Immersive Music.