Dead Ideas in Teaching and Learning Podcast Series

Season 7, Episode 2: AI as a Mass Extinction Event for Dead Ideas in Teaching and Learning?

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.

[00:00:25] **Catherine Ross:** 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."

[00:00:38] **Catherine Ross:** Welcome everyone. I'm speaking today with Dr. Cynthia Alby from Georgia College. Dr. Alby is a professor of teacher education at Georgia College. Her primary research questions revolve around reimagining education and re-enchanting learning so both teachers and students can flourish. She's also the co-author of *Learning That Matters: A Field Guide to Course Design for Transformative Education.*

[00:01:07] **Catherine Ross:** And for more than 20 years, she has developed Georgia faculty through the Governor's Teaching Fellows Program, through the Louise McBee Institute of Higher Education at the University of Georgia. Welcome to our Dead Ideas podcast, Cynthia. I'm pretty excited to be talking with you today.

[00:01:27] **Cynthia Alby:** I am excited as well.

[00:01:30] **Catherine Ross:** And I'll let our listeners know why we're so excited. We are excited because, um, when Cynthia and I discussed this podcast episode, she, um, had sent me in an email a quote that I really liked. So I'm going to read the quote and you'll understand why we're so anxious to get this going. So the quote she sent me was, Over the past few months, my professional life has centered on developing practical solutions to the sudden emergence of widely available, high quality AI.

[00:02:05] **Catherine Ross:** After dozens of national presentations, articles, and podcast interviews, I'm realizing that much of what makes AI feel threatening is that it makes an entire constellation of dead ideas officially obsolete all at once. This development delights me. The ideas I've advocated for throughout my career and most recently in my book, *Learning That Matters*, um, these ideas are becoming increasingly essential, and I'm optimistic that change is imminent. And Cynthia called this imminent change, are you ready for it, everyone? A mass extinction event for dead ideas. Talk about systemic change. This fits brilliantly into our season theme of how we can change things at a systemic level. So the way we're going to... do this podcast is a little different from how I've done them in the in the past, but I think it's going to be fun.

[00:03:10] **Catherine Ross:** Cynthia had identified this cluster of dead ideas that she thinks are going to go away because of AI. So I'm going to read the dead ideas. And then I will ask Cynthia to tell us why these are dead ideas and how exactly is, is it that AI is going to make them go extinct? So here we go. The first dead idea.

[00:03:38] **Catherine Ross:** Formal, summative assessments hold more importance than naturalistic or formative assessments. Every assessment must have points attached or students won't participate and grading supersedes learning. This is clearly a cluster of dead ideas. So I'm going to throw it over to Cynthia.

[00:04:00] **Cynthia Alby:** Yeah, I mean, I think grading is a problem. Points are a problem. There's this just this fantastic quotation from Maryellen Weimer that I've always loved. Um, it's something like, our classrooms are now token economies where nobody does anything if there are not some points proffered.

[00:04:19] **Cynthia Alby:** And every time I hear that, my heart stops a little bit, because that's true. Um, think about it like this. If there were no grades, students would have no need to cheat. They would have no

need to turn to AI for any reasons that were unethical. So what, what if it was just about the learning? I think everything would change, and mostly for the better.

[00:04:43] **Cynthia Alby:** You know, we mentioned this, this term, naturalistic, um, assessment, which would mean... It's like when we, uh, mostly are watching students work and listening to them talk, and in this kind of more natural way, we often learn more about their learning than any formal assessment would tell us, um. And I know it's not always possible to do that kind of naturalistic assessment because sometimes class sizes are unreasonable.

[00:05:13] **Cynthia Alby:** But where they are reasonable what if we, um, were turning our focus towards more of that kind of assessment where we're watching and listening and then let formal assessments just be confirmations of what we're seeing and hearing. And what if, what if AI would let us normalize saying things like, your formal assessment looks, um, a lot different from what I've been seeing from you.

[00:05:42] **Cynthia Alby:** Let's, um, talk through this together so I can get a better feel for what you understand and what you might still need help with. Um, I think that would just, I think it would change everything. As someone who's been, um, practicing ungrading for years, I can, I can tell you that, um, as soon as I started moving away from grades and more towards, um, learning, It was a much bigger change than anything I had expected.

[00:06:09] **Cynthia Alby:** It really was. It's, it's been one of the most, um, influential changes I've made in my entire career, was moving towards ungrading. I know a lot of people have read about that. They're kind of interested. I think AI gives us that break to, to think, yeah. Okay. I'm, I was going to read about that un grading stuff now I am really going to look at that un grading stuff because I can see where it could be a great way to, um, address issues that, that AI has brought, brought about.

[00:06:46] **Catherine Ross:** You know, thinking about assessments and how they're designed vis a vis what AI can do, right? That's part of what you're trying to get at, because we don't want to ask students things that AI can do for them. We want to make sure that we're really thinking carefully about constructing the questions we ask, or the kinds of questions writing that we're asking students to do so that we can feel

relatively sure. In addition to maybe changing the grading policies, as you said, that students won't want to use ai.

[00:07:28] **Cynthia Alby:** Absolutely. And I feel like at least for face-to-face classes, um, It's lovely to be there while students are doing the work and seeing them doing it and, um, be there to support and help as they write, as they think, as they work through things.

[00:07:49] **Cynthia Alby:** You know, it's sort of like AI gives us permission to start doing a lot more of that or going back to a lot more of that.

[00:07:58] **Catherine Ross:** Yeah, I certainly hope you're right because, like you, you know, working in, in a CTL, like we have many, many resources on how you could redesign your, both your assignments and your assessments, right?

[00:08:14] **Catherine Ross:** So we're hoping that with you, that AI will be the push. Yes. Fingers crossed. We'll have to check in in a few months. That's right. All right. So a second dead idea that, that, um. Cynthia has proposed AI will get rid of is the idea that courses can be designed, you know, basically just thinking about your content, right?

[00:08:41] **Cynthia Alby:** Right.

[00:08:42] **Catherine Ross:** Minimal consideration of student values or students interests and needs. And, and a kind of related one that, you know, student teacher relationships aren't really necessary for a significant learning to occur in higher education. Um, and this is one that has been cited in many works. I mean, Laura Rendon's book *Sentipensante* talks explicitly about disagreement of separating the mind and the body and the emotions, right? And the separation of student from teacher. So I think this is a really big one, and I'm really curious to hear how you think, um, AI is going to take this one down.

[00:09:29] **Cynthia Alby:** Well, I, I think, like, here's the thing, um, it's kind of the, like, when I talk to people, what I say is, if you only hear this one thing, I want you to hear this, and that is, when students value the learning, and they feel like they can be successful, there's no reason to cheat, and every reason for them to give it their all, and I, I, I kind of just want to even just repeat that, that when students value the learning, and feel they can be successful, there's no reason to cheat, because they

value the learning, they want it, you know, that's, That's what they came there for, and they feel like they can do it.

[00:10:03] **Cynthia Alby:** Um, I was in this, uh, early workshop I was doing on AI, and, um, I found myself stating very emphatically, learning has to matter. And then it made me laugh, because I realized that's what my whole career has been about, is, um, learning, making learning matter. Um, the book is called *Learning That Matters.* And I think that's why even though I'm not a very techie professor, um, I became so interested in the AI is because I could see how that tempest could lead us back to our humanity, back to an emphasis on student teacher relationships, back to focusing on learning, back to learning that matters. Um, I think an example, a great example of this is, um, camps.

[00:10:56] **Cynthia Alby:** Um, camps, I mean, like, especially in, at the, in the high school years, students go to math camps, they go to debate camps, they choose to go to all these different kinds of, of amazing camps. And when they're at those camps, they never consider cheating. Why? Because they're there because they value, let's say math, it's a math camp, they value math and they think they're going to be successful.

[00:11:25] **Cynthia Alby:** Um, I think another great example is when we go to workshops we've chosen to go to. Um, we don't, we don't ever consider, you know, if we're working on developing something in a workshop, we don't cheat. We would never consider cheating. Why? Because it's something we value. But imagine if we knew our supervisor was going to literally give us a grade on what we took back.

[00:11:50] **Cynthia Alby:** Um, I think it would change so much if we did that, if that happened. Um, and I know it's a big ask that this idea of maybe having less. prescribed curriculum, and more consideration of individual values and interests and needs is asking a lot. But for most of human history, I think that's more the direction we were in.

[00:12:14] **Cynthia Alby:** So it's not like it's unheard of. Um, I think it's possible.

[00:12:19] **Catherine Ross:** You had mentioned Maryellen Weimer's work earlier, and I think it speaks very much to her book on student centered learning, right? And not, it's not only the relationships between

the instructor and the student that matters, but also the relationships between the students themselves.

[00:12:38] **Catherine Ross:** Because they are what, what I think You know, if you really want to have, not have AI be a dominant factor in, in, in a class that you're teaching, you really do want to tap into those student interests and, and the things that are important to them and the ways in which they see themselves in that material, right?

[00:13:03] **Catherine Ross:** It's so much more than the content. And there's that sort of dual obligation, both to themselves as a learner, but to each other as learners in a community, right?

[00:13:14] **Cynthia Alby:** Absolutely. I mean, I just feel like when students feel like what they're learning is going to almost immediately be forgotten, that that just, that feels horrible.

[00:13:23] **Catherine Ross:** Not only. It immediately be forgotten, but immediately recognizing that it may not ever be useful and therefore can be forgotten.

[00:13:36] **Cynthia Alby:** Absolutely. And everything we teach, all the subjects we teach have value. Uh, it's just a matter of, um, helping students better see that value and feel that value.

[00:13:49] **Catherine Ross:** Yes, exactly.

[00:13:51] **Catherine Ross:** Because they don't always know coming into a class. Um, Exactly what, what does it mean to really understand data, or what does it mean in a history class, like why should I care about history, right? So helping them see. the value that this could bring to their own personal growth, but also to maybe their future plans, right?

[00:14:17] **Catherine Ross:** How, but that's a, it seems like that's a hard lift for instructors to get them to see like they need to maybe give students some space to reflect on how you're going to connect what you're learning in a class with your future life, your future self. I, you know, a lot of people are like, I just don't have time to do that kind of work. Work,

[00:14:39] **Cynthia Alby:** Although it's, it's really fun. I mean, that was what I was doing today with my own graduate students. They're

preparing to be high school teachers, which I can tell you that is a much harder sell. Talking high school students into thinking anything matters, trust me, it's difficult. But, um, they were taking so much enjoyment in, um, doing what we were called, we called thinking about the stakes.

[00:15:02] **Cynthia Alby:** What are the stakes? Why does it matter? You know, if you're about to teach a, a lesson on polynomials, Um, what are the stakes? What, why does it matter that a student know that? What can they do if they have that knowledge? What might they not be able to do if they don't have it? Um, what can they do with it immediately?

[00:15:22] **Cynthia Alby:** What can they do with it later? It's, it's kind of fun to think about those things.

[00:15:28] **Catherine Ross:** Yeah, yeah. That's, those are great, um, questions to have them answer. I, it reminds me of, uh, oh gosh, there was an example. This was years ago about a calculus professor who was in Boston. Actually, it might have been a high school teacher who was teaching calculus by having students, like, map the, the subways, the, the train system in Boston.

[00:15:56] **Catherine Ross:** And, you know, he said it was, revelatory. Like the students were like, Oh, this thing really, actually you can use it in for real.

[00:16:06] **Cynthia Alby:** And I think when we think about the stakes, it brings us back to our own love, original love of our subject. Like why did we fall, fall in love with it? Um, what was it that we saw as being just so important about it? And as soon as you start like lesson by lesson thinking about why that particular lesson matters, it, it, I don't know. I love the feeling it gives me.

[00:16:33] **Catherine Ross:** Well, and also, I'm sure your students pick up on the passion that you bring to it.

[00:16:38] **Cynthia Alby:** And it kind of refreshes my passion each time I, I have that thought. Yeah, yeah.

[00:16:44] **Catherine Ross:** I'm all for passion. We need more passion in teaching and learning. Alright, our next dead idea. So we can... If we like, presume that our students are completing assigned work without any unethical assistance, or we could just insist on ethical behavior, um,

and try to surveil our students, um, and that that's going to work better than actually taking some time to talk with our students about ethical thinking and ethical behavior, and helping them grow in that domain of understanding sort of their choices that they're going to make.

[00:17:31] **Catherine Ross:** So, yeah, this sort of, and I've been hearing this ambiently, right? That all we need is a really good tool to detect whether something is done by chatGPT, or AI. Um, and then we don't have to worry about anything. We can just teach how we've been teaching and have the same assessments and assignments. Um, and I just, I try to sort of gently tell people that I don't think that's going to work. So why don't you help us understand exactly why it won't work.

[00:18:06] **Cynthia Alby:** I'm going to start out by just saying, um, having studied AI pretty intensively. Um, I do not think a detector is ever going to be possible. Um, and it would, it would take more time than we probably have to go into why, but if people would just, just kind of trust me on this, um, it's probably not going to happen.

[00:18:27] **Cynthia Alby:** Um, it's always going to be easy to, to detect AI when students are terrible at using it, and it's going to be almost impossible to detect it as soon as they figure out the, the new, some of the nuances for how you get around that. But this was particularly interesting to me because, um, I don't think I had any idea about the extent to which students were likely cheating until I was took this deeper dive into AI and started to learn more about, you know, how they're like legions of people in Africa, writing essays for students and and so forth. And I expect I suspect that's true of a lot of us right now that either we've just always believed that we could just have a great syllabus statement plus some surveillance and it would be all okay, or we would think, um, well, I'm not going to worry about it. I'm just not going to pay attention to it. And I was kind of the latter. Um, I was the kind of person who just didn't think too much about it, assumed the best of students, which I think was right and good most of the time.

[00:19:44] **Cynthia Alby:** But now with, um, AI on the horizon or way past the horizon at this point, yeah, it is with AI everywhere. I look, I realized that, um, this is something that I've really got to think about. And to be clear, we created the system that made it feel like the best decision for many people was to find a workaround.

[00:20:08] **Cynthia Alby:** Because the, the content wasn't valuable enough, or they didn't feel like they could be successful without assistance. And now I'm having these feelings like, why were, why was I not putting more time into nurturing ethical thinking and behavior? I guess I and many other people just assumed it had already been done, or thought that it would take too much time, or just be too difficult.

[00:20:35] **Cynthia Alby:** But I know that it's possible. I know that it is possible to nurture that kind of thinking. And now that I'm actually, um, doing it, it it's, it's, it's. Been exciting for me. It's, it's just one of those things kind of in the back of my head I think I always knew I should be doing and I wasn't and now AI is forcing my hand and I'm glad for it

[00:20:58] **Catherine Ross:** How how are you approaching it with your students because I think for a lot of instructors The question is like how do you start doing that?

[00:21:06] **Cynthia Alby:** I think there's a lot of different ways you could come at it One of the main ways that I've done it is by allowing AI in my classroom. By bringing it in and helping students use it wisely, I, I see them actually using it wisely. I think there's just that strange sensation in, in humans, and especially, um, younger humans, that we shake our fingers that oftentimes that turns them the other way.

[00:21:33] **Cynthia Alby:** But I think because I've been welcoming of it, and we've, we've had so many great discussions about where it's working and where it's not, and we're having fun with it, um, that it's been, um, so much easier to have those kinds of conversations. And really they're doing a lot of what I would call self convincing.

[00:21:52] **Cynthia Alby:** You know, they're the ones who are saying, oh, you know, actually my ideas are so much better than it's in this particular case, or, um, oh, it worked nicely for this part, but it didn't work well for this. You know, they're really the ones who are almost Teaching me what it means to them to use it well and ethically.

[00:22:10] **Catherine Ross:** Oh, that's so interesting. And I think, you know, what you can, what I'm hearing in your description is you're actually watching them develop a kind of digital critical thinking and, um, build their own defenses of the role for human authorship and why is authorship important and my ideas still matter.

[00:22:35] **Cynthia Alby:** Yes. Yes. Oh, absolutely.

[00:22:37] **Catherine Ross:** Yeah. I was also struck by, um, you know, thinking back to our, uh, which one was it? The, the one about student teacher relationships, that it, it's helping you build a relationship with your students. Uh, a very open relationship around this tool, um, from what I've heard from students that I've interviewed in my podcast, having a relationship with a professor is what really drives them and motivates them to do their best work. So I think that's sort of another piece of it.

[00:23:14] **Cynthia Alby:** It makes me, makes me really hope that smaller class sizes is going to be part of what AI results in. Great.

[00:23:21] **Catherine Ross:** Boy, wouldn't that be great? All right, must systematically develop novice level foundational skills before we can advance to more complex thinking and maybe things like application and problem solving, right? Um, that foundational skills are required for performing. High quality, high order work. So tell us why you say that's a dead idea and how AI is going to disrupt that.

[00:23:51] **Cynthia Alby:** This is what I've been thinking about for a while. Um, but kind of at a distance because it, my trouble was I was having a hard time imagining how to get students to higher order work more quickly. Um, I was just having a hard time picturing how I would do it. But that has turned out to be one of the most exciting things about AI to me, because, um, it can serve as training wheels. That's what I'm calling my theory, the training wheels theory. Um, and the theory is when we, um, have students, have kids learn to ride bicycles, we don't just stick them on a bicycle and push them, that'd be terrible.

[00:24:30] **Cynthia Alby:** We give them training wheels so that they can very quickly enjoy the experience of like, right, um, without having so many falls and bumps and bruises. Um, so how would we do that in education? And I wasn't sure how I would do it until I started doing it with the help of AI. So, um, like here's, here's an example.

[00:24:54] **Cynthia Alby:** Um, my students are learning to be high school teachers, as I said, and one of the things they have to do is learn to write objectives. And writing objectives from scratch is way harder than you would think. So, what I had students do is, we learned some about what good objectives look like, and then I had them try it a little, try to write some.

[00:25:14] **Cynthia Alby:** And then move to AI and let it help them write some using good prompts that I help them write and then trying to kind of come back then. Like self, AI, self. So they came back to, okay, now that I've written some on my own, it's helped me out some, what, what do I think would be the best objectives for this particular lesson I'm writing?

[00:25:37] **Cynthia Alby:** And it, the results were so much better than they've been in the past. It was a lot more satisfying to them, they were getting to where they wanted to be so much more quickly, and here's the thing, the critique of AI Was using many of the exact same skills as when in the past. I would just have them right from scratch.

[00:25:59] **Cynthia Alby:** Yeah, and I'm very quickly seeing that they're using more over time. I'm like, literally days over just a few days. They move from heavy dependence on AI to less and less dependence on AI very quickly. And this is applying to so many things like, um, for let's say history teachers. They love to use simulations.

[00:26:23] **Cynthia Alby:** But to learn from scratch to write simulations is very hard and takes a long time. But with AI to help, they are getting to it quickly. Um, thinking about, thinking of good out of class applications, like the polynomial example, um, to be able to just say to AI, what are some out of class applications for polynomials?

[00:26:44] **Cynthia Alby:** And they're, it's just, mm! But I'm telling you, I'm not sure how it will be in every subject, but in my subject, the training wheels theory is panning out even better than I imagined.

[00:26:56] **Catherine Ross:** That's a great, that's great to hear a sort of concrete example, because I have heard some instructors talking about how they envision using AI to do some of the lower level kind of work, the, you know, I don't know how to, better word to describe it, but to, to sort of get students more quickly into the higher order thinking and let the AI take care of the sort of basic level stuff.

[00:27:24] **Cynthia Alby:** Incredible.

[00:27:25] **Catherine Ross:** Yeah. Thank you for sharing that. Hopefully your enthusiasm will inspire more experimentation.

[00:27:32] **Cynthia Alby:** It's my dream. Yes.

[00:27:35] **Catherine Ross:** And I think that's really critical piece of your story that you are actively experimenting with it along with your students. So you're, you're allowing them to sort of, um, co-learn with you. And I think that's really powerful as well.

[00:27:53] **Catherine Ross:** All right, our final question. What does it mean when so many commonly held ideas become obsolete simultaneously? I know, this is our dream, Cynthia.

[00:28:06] **Catherine Ross:** Could this mass extinction be the invitation that we need to return to our ideals? You know, what teaching can be, could be, I'm gonna dare to say, should be. And in summary, like what does that look like?

[00:28:25] **Cynthia Alby:** Well, I think, I think this is what we had hoped was gonna happen with, um, the pandemic, right? We learned, we, we learned a lot of lessons from the pandemic and some of it stuck, but a lot of it didn't.

[00:28:37] **Cynthia Alby:** And I think the reason it didn't was that it was possible to return to the status quo, and because it was possible, we kind of did. My thinking is that, in a lot of respects, it is not possible. With AI has, it's forcing our hand. It is making it so it is no longer possible to go back. There is no option but to change.

[00:29:01] **Cynthia Alby:** And if there's no option but to change, and I really think that's quickly going to be the case, we could change for the better, or we could change for the worse. And as long as we're going to be changing, I vote we change for the better.

[00:29:12] **Catherine Ross:** I'm with you. I think my only concern is that I have heard, you know, that sometimes for some instructors, it's like, I just can't do it. I can't go another step. We've been through so much in the last years, and I totally get that. Like, I'm very sympathetic to that. But I don't think AI is going to go away. So sooner or later, maybe people can come around to it.

[00:29:39] **Cynthia Alby:** So much just depends on how we approach things, right? Um, I mean, I really think that for a lot of people, it could, if they would let it be, it could be. The thing that reinvigorates them. It's, it's, it's, it's kind of fascinating.

[00:29:55] **Catherine Ross:** And you, you seem to be having such fun with it, actually, with your students.

[00:30:00] **Cynthia Alby:** I really am.

[00:30:01] **Catherine Ross:** So, I, you know, maybe you're right. It would be just the thing they need as an antidote to the exhaustion of change over these last few years.

[00:30:12] **Cynthia Alby:** I was also tired. I, if, if, if people out there, if you're tired, I feel you. Um, and, but, but truly, this. This could, could be the thing that reinvigorates you.

[00:30:22] **Catherine Ross:** All right. Well, thank you for, um, alerting us to the mass extinction event. And, uh, I'm sure our listeners have enjoyed hearing about this and we've given them a lot to think about.

[00:30:36] **Catherine Ross:** So thank you so much, Cynthia. We're really grateful that you were willing to participate in our seventh season of Dead Ideas.

[00:30:44] **Cynthia Alby:** It's been a joy.

[00:30:49] **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.

[00:31:13] **Catherine Ross:** Our theme music is *In the Lab* by immersive music.